1.2.2

Additional Information

Core Courses in Certificate Programmes in the first year of all streams with the Semester System in CBCS pattern 2022 are relevant as per NEP2020. 74 courses following the CBCS pattern were started in 2022-23 which was a step towards the upgradation of the courses to provide education of sustainable quality. Apart from it, 20 courses are elective. The introduction of NCC and Law in all undergraduate programmes and B.A. as elective courses respectively is the need of the hour.

1.2.2 A

स्थापना वर्ष 1938
स्थापना वर्ष 1938

शासकीय जे. योगानन्दम् छत्तीसगढ़ महाविद्यालय

(स्वशासी महाविद्यालय)
रायपुर (छ.ग.)

PRINCIPAL
CHHATTISGARH COLLEGE

नैक द्वारा मूल्यांकित : ग्रेड B (2018-2023)

विवरणिका

सत्र : 2019-20

विषय का नाम :– वाणिज्य

स्नातक परीक्षा 2020–21

बी. कॉम भाग – I				
प्रश्न पत्र	प्रश्न पत्र का नाम		पूर्णांक	उत्तीर्णांक
GROUP - I	I	FINANCIAL ACCOUNTING	75	50
	II	BUSINESS COMMUNICATION	75	
GROUP - II	I	BUSINESS MATHEMATICS	75	50
	II	BUSINESS REGULATORY FRAMEWORK	75	
		OR		
	I	TAX PROCEDURE & PRACTICS	50 + 25	
GROUP - III	I	BUSINESS ENVIRONMENT	75	50
	II	BUSINESS ECONOMICS	75	
COMPUTER APPLICATION	I	COMPUTER FUNDAMENTALS	50	
	II	PC SOFTWARE & MULTIMEDIA	50	
	II I	PRACTIAL	50	

बी. कॉम भाग – II				
प्रश्न पत्र	प्रश्न पत्र का नाम		पूर्णांक	उत्तीर्णांक
GROUP - I	I	CORPORATE ACCOUNTING	75	50
	II	COMPANY LAW	75	
GROUP - II	I	COST ACCOUNTING	75	50
	II	PRINCIPLES OF BUSINESS MANAGEMENT	75	
GROUP - III	I	BUSINESS STATISTICS	75	50
	II	FUNDAMENTALS OF ENTREPRENEURSHIP	75	
		OR		
	II	TAX PROCEDURE & PRACTICE		
COMPUTER APPLICATION	I	INTERNET APPLICATION & E-COMMERCE	50	
	II	RELATIONAL DATABASE MANAGEMENT SYSTEM	50	
	III	PRACTIAL	50	

बी. कॉम भाग – III				
प्रश्न पत्र	प्रश्न पत्र का नाम		पूर्णांक	उत्तीर्णांक
GROUP – I (COMPULSARY)	I	**INCOME TAX**	**75**	**25**
	II	**INDIRECT TAXES**	**75**	**25**
	III	**MANAGEMENT ACCOUTING**	**75**	**25**
	IV	**AUDITING**	**75**	**25**
GROUP - II (OPTIONAL GROUP – B)	I	**PRINCIPLES OF MARKETING**	**75**	**50**
	II	**INTERNATIONAL MARKETING**	**75**	
	I	**CENTRAL EXCISE – PROCEDURE & PRACTICE**	**75**	**50**
	II	**CUSTOM DUTY - PROCEDURE & PRACTICE**	**75**	
COMPUTER APPLICATION	I	**PROGRAMMING IN VISUAL BASIC**	**50**	**50**
	II	**SYSTEM ANALYSIS, DESIGN & MIS**	**50**	
	III	**PRACTIAL**	**50**	17

उपलब्ध पाठ्यक्रम

महाविद्यालय में कला, वाणिज्य, विज्ञान एवं विधि संकायों में स्नातक एवं स्नातकोत्तर स्तर पर अध्ययन-अध्यापन की सुविधा उपलब्ध है :-

कला संकाय

(क) स्नातक - बी.ए. (भाग - एक, भाग-दो व भाग-तीन)

इन कक्षाओं में अनिवार्य विषय आधार पाठ्यक्रम के अतिरिक्त पं. रविशंकर शुक्ल विश्वविद्यालय द्वारा निर्धारित आठ समूहों में एक-एक विषय (कुल तीन विषय) का चयन करना होगा। महाविद्यालय में अध्ययन करने के लिए उपलब्ध विषय अग्रलिखित हैं - हिन्दी साहित्य, अंग्रेजी साहित्य, दर्शनशास्त्र, राजनीति शास्त्र, अर्थशास्त्र, भूगोल, प्राचीन भारतीय इतिहास, इतिहास एवं मनोविज्ञान।

समूह के नाम (प्रत्येक समूह से एक विषय, कुल तीन विषय)

समूह (1) : समाज शास्त्र / प्राचीन भारतीय इतिहास। समूह (2) : राजनीति शास्त्र। समूह (3) : हिन्दी साहित्य। समूह (4) : अर्थशास्त्र। समूह (5) : दर्शनशास्त्र / मनोविज्ञान / भूगोल समूह(6) : इतिहास/अंग्रेजी साहित्य।

(ख) स्नातकोत्तर - एम.ए. (प्रथम, द्वितीय, तृतीय एवं चतुर्थ सेमेस्टर)

(1) हिन्दी (2) अंग्रेजी (3) राजनीति शास्त्र (4) अर्थशास्त्र
(5) लोक प्रशासन (6) समाजशास्त्र (7) भूगोल (8) प्राचीन भारतीय इतिहास
(9) इतिहास (10) समाज कार्य (Social Work) (11) दर्शन शास्त्र

वाणिज्य संकाय

(1) बी.कॉम. (भाग - एक, दो व तीन)
(2) बी.कॉम. भाग एक, दो व तीन (व्यावसायिक पाठ्यक्रम) कर प्रक्रिया एवं व्यवहार
(3) बी.कॉम. (कम्प्यूटर एप्लीकेशन) भाग - एक, दो, तीन
(4) डिप्लोमा इन बिजनेस मैनेजमेंट (DBM) एक वर्षीय पाठ्यक्रम
(5) एम.कॉम., सेमेस्टर पद्धति।

विज्ञान संकाय

(क) बी.एस- सी. (भाग - एक, भाग-दो व भाग-तीन)

बी.एस-सी. की कक्षाओं में अनिवार्य विषय आधार पाठ्यक्रम के अतिरिक्त निम्नलिखित किसी एक समूह के विषयों का चयन करना होगा -

(1) जीव विज्ञान समूह :- (Bio Group)
(अ) वनस्पति शास्त्र, प्राणी शास्त्र, रसायन शास्त्र अथवा (ब) मानव विज्ञान, प्राणी शास्त्र, रसायन शास्त्र
(स) भूगोल, वनस्पति शास्त्र, रसायन शास्त्र

(2) गणित समूह : (Maths Group) (अ) रसायन शास्त्र भौतिकी, गणित (ब) भूगोल, भौतिकी, गणित

विधि संकाय

(1) एल.एल.बी. (सेमेस्टर पद्धति : भाग - एक, भाग दो, भाग तीन)

(2) एल.एल.एम. (भाग एक व भाग दो) सेमेस्टर पद्धति भाग - एक, भाग - दो

टीप :-

1. स्नातकोत्तर स्तर पर सेमेस्टर पद्धति (एल.एल.बी. को छोड़कर) के अंतर्गत एक सेमीनार / आन्तरिक मूल्यांकन आयोजित किया जायेगा, जिसमें सम्मिलित होना विद्यार्थी के लिये अनिवार्य होगा।
2. स्नातक स्तर पर पढ़ाये जाने वाले विषयों के अन्तर्गत यदि विश्वविद्यालय तथा स्नातकोत्तर कक्षाओं के सम्बंध में महाविद्यालय अध्ययन मंडल / अकादमिक परिषद् द्वारा कोई परिवर्तन किया जाता है तो उसके अनुरूप ही विषयों का अध्यापन महाविद्यालय में किया जायेगा ।
3. वैकल्पिक विषयों का जहां तक प्रश्न है, उसके लिए भी विभागाध्यक्ष सुविधानुसार परिवर्तन करने में सक्षम होंगे।
4. स्नातकोत्तर स्तर पर आयोजित प्रत्येक सेमीनार / आन्तरिक मूल्यांकन में सम्मिलित होना विद्यार्थी के लिए अनिवार्य होगा ।

अन्य पाठ्यक्रम

पी.जी.डी.सी.ए. : एक वर्षीय (दो सेमेस्टर) पाठ्यक्रम

टीप :- उपर्युक्त समस्त पाठ्यक्रमों में एल.एल.बी., एल.एल.एम. एवं पी.जी.डी.सी.ए., एम.ए. सामाजिक कार्य की सेमेस्टर परीक्षाएँ एवं डी.बी. एम. की वार्षिक परीक्षाएँ पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर द्वारा आयोजित होंगी। शेष सभी पाठ्यक्रम महाविद्यालय की स्वशासी योजनान्तर्गत हैं।

शोध सुविधा

पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर के नियमानुसार महाविद्यालय में शोध सुविधा उपलब्ध होगी।

शोध-केन्द्र

पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर द्वारा आदेश क्रमांक 4756/अका./शोध/2009, रायपुर दि. 01-04-2009 से महाविद्यालय के **गणित विभाग** को पी-एच.डी. के लिए तथा आदेश क्रमांक 7653/अ.का./2009 रायपुर दिनांक 16-10-2009 से **अंग्रेजी विभाग** को पी-एच.डी. के लिए तथा मई 2015 से **वाणिज्य विभाग** को पी-एच.डी. के लिए शोध केन्द्र की मान्यता प्रदान की गई।

पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर (छ.ग.)

क्रमांक 13675 /अका./ 2014 रायपुर, दिनांक :19 /03/2014

।। अधिसूचना ।।

विश्वविद्यालय समन्वय समिति की 23वीं बैठक दिनांक 15.01.2014 को सम्पन्न हुई। बैठक में विश्वविद्यालय के प्रस्ताव क्रमांक 11.1, 11.2 एवं 11.3 को अनुमोदित किया गया है, जो निम्नांकित है :–

11.1 **Revised Ordinance No. 21 Bachelor of Science**

वि.वि. अधिनियम/ अध्यादेश/ परिनियम क्रमांक	वर्तमान प्रावधान	प्रस्तावित संशोधन	औचित्य
Revised Ordinance No. 21	6 (ii) Any one of the following combinations of three subjects :-	**In clause 6(ii) after serial No. 41 the following is to be inserted** 42. Geology, Chemistry & Geography 43. Geology, Mathematics & Geography 44. Mathematics, Physics & Geography 45. Chemistry, Botany & Geography	विश्वविद्यालय समन्वय समिति की 21वीं बैठक दिनांक 29.01.2013 में प्रस्ताव क. 6 में भूगोल विषय को विज्ञान संकाय में सम्मिलित कर लिया गया है। तदानुसार अध्यादेश कमांक 21 Bachelor of Science में तीन विषयों के समूह में कमांक 42, 43, 44 एवं 45 को जोड़ा जाना आवश्यक है।

11.2 **Revised Ordinance No. 22 Master of Science Examination**

वि.वि. अधिनियम/ अध्यादेश/ परिनियम क्रमांक	वर्तमान प्रावधान	प्रस्तावित संशोधन	औचित्य
Ordinance 22	NIL	In clause 6 (xvii) the following is to be inserted **(xviii) Geography**	विश्वविद्यालय समन्वय समिति की 21वीं बैठक दिनांक 29.01.2013 में प्रस्ताव क. 6 में भूगोल विषय को विज्ञान संकाय में सम्मिलित कर लिया गया है। अतः अध्यादेश कमांक 22 मे कमांक 18 जोड़ा जाना आवश्यक है ।

1764
21-3-14

Contd. .....

11.3 **Revised Ordinance No. 170 for Semester System**

वि.वि. अधिनियम/ अध्यादेश/ परिनियम क्रमांक	वर्तमान प्रावधान	प्रस्तावित संशोधन	औचित्य
Revised Ordinance 22	NIL	In clause 2(ii) after sub para (h) the following is to be inserted: i) For admission in M.A./M.Sc. Geography, a candidate must have offered Geography at B.A./ B.Sc. level.	विश्वविद्यालय समन्वय समिति की 21वीं बैठक दिनांक 29.01.2013 में प्रस्ताव क्र. 6 में भूगोल विषय को विज्ञान संकाय में सम्मिलित कर लिया गया है । अतः प्रस्तावित संशोधन आवश्यक है ।

आदेशानुसार,

कुलसचिव

पृ. क्र. 13676 /अका./2014 रायपुर, दिनांक: 19/03/2014

प्रतिलिपि :

1. राज्यपाल के सचिव, छत्तीसगढ़ राजभवन, रायपुर (छ.ग.) ।
2. सचिव, उच्च शिक्षा, छत्तीसगढ़ शासन, महानदी भवन, नया मंत्रालय, नया रायपुर (छ.ग.)।
3. आयुक्त, उच्च शिक्षा संचालनालय, शासकीय विज्ञान महाविद्यालय परिसर, रायपुर (छ.ग.)।
4. प्राचार्य, समस्त सम्बद्ध महाविद्यालय,
5. अध्यक्ष, समस्त अध्ययनशाला,
6. वित्त नियंत्रक/प्रभारी अंकेक्षण, पं. रविशंकर शुक्ल वि.वि., रायपुर ।
7. संचालक, महाविद्यालय विकास परिषद/ अधिष्ठाता, छात्र कल्याण/प्रभारी जनसंपर्क अधिकारी, पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर (छ.ग.) ।
8. समस्त विभाग प्रमुख, पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर (छ.ग.) ।
9. कुलपति के सचिव/ कुलसचिव के निजी सहायक, पं. रविशंकर शुक्ल वि.वि., रायपुर, को सूचनार्थ एवं आवश्यक कार्यवाही हेतु अग्रेषित ।

उप कुलसचिव (अका.)

D:/ ahi 08/tikarami08/610

बैठक 21.07.2014.

आज दिनाँक 21.07.2014 को भूगोल विभाग में अध्ययन मंडल की बैठक आयोजित की गयी। जिसमें निम्नलिखित सदस्य सम्मिलित हुए:-

(1) डॉ. एल. एन. वर्मा
(2) डॉ. डी. डी. कश्यप 21.7.14.
(3) डॉ. टी. एल. वर्मा
(4) डॉ. कल्पना लोंवे
(5) डॉ. ज्योत्सना शर्मा
(6) योगेन्द्र कुमार (छात्र प्रतिनिधि) Yogendra

इस बैठक में निम्नलिखित निर्णय लिये गये:-

(1) स्नातक स्तर पर पं. रवि. शु. वि. वि. रायपुर के केन्द्रीय अध्ययन मंडल, छत्तीसगढ़ शासन से अनुमोदित पाठ्यक्रम यथावत लागू किया गया।

(2) सत्र 2014-15 में एम.ए.(भूगोल) में निम्नलिखित प्रश्नपत्र हैं:-

एम.ए. I सेमेस्टर →

(1) Geomorphology
(2) Climatology
(3) Geographical Thought
(4) Geography of India
(5) Practical Geog.

एम.ए. II सेमेस्टर:-

(1) Economic and Natural Resource management
(2) Oceanography
(3) Regional Development and Planning
(4) Social Geography
(5) Practical Geography

P.T.O

M.A. III Sem. :-

(1) Population Geog.
(2) Settlement Geog.
(3) Geography of Chhattisgarh
(4) Research Methodology
(5) Practical III - Remote Sensing and Quantitative Techniques

M.A IV th Sem. :-

(1) Urban Geography
(2) Agriculture Geography
(3) Environmental Geography
(4) Field work (Physical and Socio-economic survey)
(5) Practical - GIS and Quantative Technique)

सत्र 2014-15 से पं. रवि. शु. वि.वि. अधिसूचना क्रमांक 13675 दिनाँक 19/3/14 के अनुसार ऐच्छिक विषय B.A I / B.Sc I में भी शामिल किया गया। तदानुसार इस सत्र से B.A I / B.Sc I पाठ्यक्रम माना जावेगा।

21.7.2014

21.7.14

21.7.14

Govt.J.Yoganandam Chhattisgarh College,

Raipur (C.G.)

सत्र 2022-23

Part A: Introduction					
Programme : Certificate Course		Class: BA/BSC/B.COM 1st year	Semester- 1st & 2nd	**Year:** 2022	**Session: 2022-23**
Subject: आधार पाठ्यक्रम, हिन्दी भाषा					
1	**Course Code**	**HLG101**			
2	**Course Title** (Name of Paper)	हिन्दी भाषा			
3	**Course Type**	**CORE COURSE**			
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject ..... in class 12th			
5	**Course Learning Outcomes** (CLO)	1. हिन्दी भाषा के आधार तत्वों की समझ विकसित होगी। 2. शब्द ज्ञान बढ़ेगा। 3. भाषागत अशुद्धियों से बचेंगे। 4. हिन्दी भाषा के स्तरीय रुप से परिचित होंगे। 5. पत्राचार के विविध प्रारुपों से परिचित होंगे। 6. भाषा कौशल के अलावा हिन्दी साहित्य की विविध विधाओं के माध्यम से देश, समाज, व्यवस्था आदि के अंतर्बाह्य परिवेश को रोचकता से आत्मसात कर सकेंगे।			
6	**Credit Value**				
7	**Total Marks**	50			

Part B: Content of the Course		
Total Period : 60		
Unit		No. of Lectures
I	**(क) शब्द के प्रकार** (तत्सम, तद्भव, विदेशी, संकर, नवनिर्मित शब्द), पारिभाषिक शब्द शब्द ज्ञान – पर्यायवाची, विलोम, अनेकार्थी, समश्रुत, अनेक शब्दो के लिए एक शब्द अशुद्धि : प्रकार एवं शोधन **(ख) कविता** भारत वंदना – सूर्यकांत त्रिपाठी निराला हताशा से एक व्यक्ति बैठ गया था – विनोद कुमार शुक्ल	

II	(क) मानक भाशा – मानक हिन्दी भाषा – अर्थ, स्वरुप एवं विशेषताएँ, : मानक, उपमानक, अमानक भाषा (ख) संस्मरण एक शांत नास्तिक संत प्रेमचंद – जैनेन्द्र मैनपाट मे एक दिन – आशा शर्मा	
III	(क) पल्लवन, पत्राचार, मुहावरे – लोकोक्तियाँ (ख) व्यंग्य भोलाराम का जीव – हरिशंकर परसाई जीप पर सवार इल्लियाँ – शरद जोशी	
IV	(क) देवनागरी लिपि – नामकरण, स्वरुप, विशेषताएँ, अनुवाद (ख) कहानी अकेली – मन्नू भंडारी बडे भाई साहब – प्रेमचंद	
V	(क)हिन्दी अपठित गद्यांश, संक्षेपण, निबंध लेखन (ख) निबंध सरस्वती का प्रकाशन – राहुल सांस्कृत्यायन भारतीय संस्कृति और उत्सव –पदुमलाल पुत्रालाल बख्शी	
Keywords/Tags-		

Part C: **Learning** Resources
Text Books. Reference Books, Other Resources
Suggested Readings: **Text Books:** 1. सं., वर्मा, धनंजय, भारतीयता के अमर स्वर, म.प्र.हिन्दी ग्रंथ अकादमी भोपाल **संदर्भ ग्रंथ** 1. कुमार, डॉ. सुरेश, अनुवाद और पारिभाषिक शब्दावली, केन्द्रीय हिन्दी संस्थान आगरा 2. टंडन, पूरनचंद, भाषा दक्षता (भाग 1 से 4), किताब घर प्रकाशन दिल्ली 3. बाहरी, हरदेव, हिन्दी भाषा, अभिव्यक्ति प्रकाशन, दिल्ली **अनुशसित डिजिटल प्लेटफार्म, वेबलिंक** 1. www.wikipediya.org 2. www.egyankosh.ac.in 3. www.youtube.com 4. http//epgp.inflibnet.ac.in 5. http.//rajbhasha.gov.in/hindi-vocabulary

23/7/22

Govt J. Yoganandam Chhattisgarh College, Raipur (CG)

B.A./B.Sc./B.Com.I

2022-23

ENGLISH LANGUAGE-I

M.M. 50 P.M. 17

Programme: Certificate Course		**Class:** BA/B.Sc. / B. Com.	**Semester-** I	**Year:** 2022 **Session:** 2022-23
Subject: English				
1	**Course Code**	ELG-101		
2	**Course Title** (Name of the Paper)	English Language- I		
3	**Course Type**	Ability Enhancement Compulsory Course (AECC)		
4	**Pre-requisite (if any)**	To study this course a student must have had the subject English language in class 12th.		
5	**Course Learning Outcomes (CLO)**	The course will enable the students to: 1. Make them familiar with English speech sounds, thereby improving their pronunciations. Develop fundamental skills required for close reading and critical thinking of the texts and concepts 2. Have an appreciable understanding of English grammar. 3. Produce grammatically and idiomatically correct spoken and written discourse. 4. Spot language errors and correct them. 5. Equip the students with basic language skills along with improved non-verbal skills thereby improving their employability quotient. 6. Write Personal and Business Letters with proficiency needed in day to day correspondence. 7. Acquire micro and macro language skills. 8. Develop digital literacy skills.		
6	**Credit Value**	2		
7	**Total Marks**	Max. Marks:50	Min. Passing Marks:17	

Part B: Content of the Course
Total Periods : 25
Self Study
1. Read about the author- his life and work. 2. Preview the text to be taught. 3. A quick reading of the text to find new words, ideas and phrases 4. Try to know the meaning of new words according to the context 5. Read English newspapers. 6. Listen to English news. 7. Brush up the knowledge of English grammar learned in earlier classes (Sentence, Kinds of Sentences, Parts of Sentence) 8. Three forms of Verbs

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Unit		No. of Periods
I	Questions from the lessons based on prescribed text- The Gift of Magi The Open Window	5
II	English Speech Sounds and Grammar Vowels and Consonants Articles	6
III	Grammar Tenses	7
IV	Reading Comprehension	2
V	Personal and Business Letters	5
Practical Training	Literacy Skills Testing Reading Comprehension, Test and Quiz on Google Platform	
Keywords/Tags- Speech sounds, Tenses, Personal and Business Letters, Comprehension, Gift of Magi, Open Window		

Part C: Learning Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Prescribed Text Books:

1. M L Tickoo, A E Subhramanian, P R Subhramaniam. *Intermediate Grammar Usage and Composition*. Orient BlackSwan, 2017.
2. *Bridges*. Macmillan Publishers India Private Limited, 2020.

Reference Books:

1. John Eastwood. *Oxford Practice Grammar*. OUP, 2016.
2. Raymond Murphy. *English Grammar in Use with Answers: Reference and Practice for Intermediate Students*. Cambridge University Press.
3. F T Wood. *Remedial English Grammar for Foreign Students*. Macmillan Publishers India Private Limited.
4. *Dynamic English Workbook-1*, Macmillan Publishers India Private Limited

Suggested Digital Platforms/ Web links:

1. Oxford Modern English Grammar by Bas Arts.
2. Purdue Online Writing Lab.
3. Grammar Exercises from the University of Bristol's Faculty of Arts.

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1.1.1, 1.1.2, 1.2.1

4. Grammar Monster.
5. UsingEnglish.com.
6. Edufind.com.
6. Oxford Dictionaries

Syllabus Approved by the Board of Studies English on 25.07.2022

Dr Kirti Tiwari (Chair Person)

Dr G. A. Ghanshyam (Subject Expert)

Dr Tapas Mukherjee (Subject Expert)

Dr Pratibha Mukherjee Sahukar (Subject Expert)

Ms Vintee (Student Representative)

Members:

1. Prof. A. Tiwari
2. Dr A. Juneja 25.7.22
3. Dr Shashank Gupta

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Syllabus

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	Class: **B.Sc. 1st Year**	Semester- 1st sem	**Year:** 2022	**Session: 2022-23**
Subject: **ENVIRONMENTAL STUDIES**				

1	**Course Code**	EVS - 101	
2	**Course Title** (Name of Paper)	Natural Resources, Ecosystem and Biodiversity	
3	**Course Type**	Ability Enhancement Compulsory Course (AECC)	
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject EVS in class 12th.	
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: 1. Aware about Environment	
6	**Credit Value**	Theory: 2	
7	**Total Marks**	Max. Marks: 50	Min. Passing Marks: 17

Part B: Content of the Course

Total Period : 30

Self Study : Introductory knowledge of

1. Environment
2. Renewable and nonrenewable resources
3. Ecosystem
4. Biodiversity

Unit	Topic	No. of Lectures
I	**Introduction to environmental studies:** 1. Multidisciplinary nature of environmental studies. 2. Scope and importance; Concept of sustainability and sustainable development. 3. Need for public awareness.	**2**
II	**Natural Resources ; Renewable and Non-renewable Resources:1** 1.Forest resources; Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal population. 2. Water resources : Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international and inter- state). 3.Energy resources : Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources.	**7**
III	**Natural Resources ; Renewable and Non-renewable Resources:2** 1. Land resources and land use change ; Land degradation, soil erosion and desertification. 2. Mineral resources : Use and exploitation, environmental effects of extracting and using mineral resources. 3. Food resources : World food problem, changes caused by agriculture and overgrazing, effect of modern agriculture, fertilizer-pesticide problems, water logging, salinity.	**7**

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IV	**Ecosystems:** What an ecosystem ? Structure and function of ecosystem; Energy flow in an ecosystem; food chain, food webs and ecological succession. Case study of the following ecosystem : a) Forest ecosystem b) Grassland ecosystem c) Desert ecosystem d) Aquatic ecosystem (ponds, streams, lakes, rivers, oceans)	7
V	**Biodiversity and Conservation:** 1. Levels of biological diversity : genetic, species and ecosystem diversity; Bio-geographic zones of India; biodiversity patterns and global biodiversity hot spots. 2. India as a mega- diversity nation; Endangered and endemic species of India. 3. Threats to biodiversity : Habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity : In-situ and Ex-situ conservation of biodiversity. 4. Value of biodiversity : consumptive use, productive use, social ethics, aesthetic and option values.	7
Keywords/Tags- Public awareness , Resources, Ecosystem, Biodiversity		

Part C: **Learning** Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Text Books:

Agarwal K.C. 2001 Environmental Biology, Nidi pub. Ltd. Bikaner

8. Bharucha Erach, the Biodiversity of India, Mapin pub. Ltd. Ahmedabad 380013, India, Email: mapin@icenet.net(R)
9. Bruinner R.C. 1989, Hazardous Waste Incineration. McGraw Hill Inc.480p
10. Clark R.S. Marine pollution, Clanderson press Oxford (TB)
11. Cuningham, W.P.Cooper. T.H.Gorhani, E & Hepworth. M.T,200
12. Dr. A.K.- Environmental Chemistry. Wiley Eastern Ltd.
13. Down to Earth, Center for Science and Environment (R)
14. Gloick, H.P. 1993 Water in crisis. pacific institute for studies in Deve. Environment & Security. Stockholm Eng. Institute. Oxford University, Press. m 473p.
15. Hawkins R.E. Encyclopedia of Indian Natural History, Bombay Natural History Society, Mumbai (R)
16. Heywood, V.H. & Watson, T.T.1995 Global Biodiversity Assessment, Cambridge Univ. Press 1140p
17. Jadhav H. & Bhosale, V.H. 1995 Environmental Protection and Law. Himalaya pub. House, Delhi 284p
18. Mckinney M.L.& School R.M.1996, environmental Science systems & solutions, web enhanced edition, 639p
19. Mhadkar A.K. Matter Hazardous, Techno-Science publication(TB)
20. Miller T.G.Jr. Environment Science, Wadsworth publication co. (TB)
21. Odum E.P.1971, Fundamentals of Ecology, W.B. Saunders Co. USA,574p
22. Rao M.N. & Datta, A.K. 1987, Waste water treatment. Oxford & IBH pub.co.pvt. Ltd 345p
23. Sharma B.K. 2001, Environmental chemistry, Goel pub. House, Meerut
24. Survey of the Environment, The Hidu(M)
25. Townsend C. Harper J. And Michael Begon, Essentials of Ecology, BlackwellScience(TB)
26. Trivedi R.K.Handbook of Environment Laws, Rules, Guidlines, Compliances and Standards, Vol land II,

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Environment Media(R)
27. Trivedi R.K. and P.K. Goel, Introduction to air pollution, Techno-Science publication (TB)
28. Wanger K.D.1998, Environmental Management. W.B. Saunders Co. Philadelphia, USA 499p
29. SK Kapoor- Human rights under International Law and Indian Law.
30. HO Agrawal- Internation Law and Human Rights

Part D: **Assessment and Evaluation**		
Suggested Continuous Evaluation Methods: Maximum Marks: 50 Continuous Comprehensive Evaluation (CCE): ----Marks University/Autonomous Exam (U/AE): 50 Marks		
Internal Assessment: Continuous Comprehensive Evaluation (CCE)	Class Test Assignment/Presentation	Total Marks: 50
External Assessment: University Exam (UE) Time: …3… Hours	Section (A): Three Very Short Questions 150 Words Each) Section (B): Four Short Questions (200 Words Each) Section (C): Two Long Questions 1500 Words Each)	Total **Marks: 50**

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Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	Class: **B.Sc./ B.A./B.Com. 1st Year**	Semester- 2nd sem	**Year:** 2022	**Session: 2022-23**
Subject: **ENVIRONMENTAL STUDIES**				

1	**Course Code**	EVS - B 201	
2	**Course Title** (Name of Paper)	Environmental Pollution, Issues, Management and Fundamental Rights	
3	**Course Type**	Ability Enhancement Compulsory Course (AECC)	
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject EVS in class 12th.	
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: 1. Aware about Environment	
6	**Credit Value**	Theory: 2	
7	**Total Marks**	Max. Marks: 50	Min. Passing Marks: 17

Part B: Content of the Course

Total Period : 30

Self Study : Introductory knowledge of

1. Pollution
2. Environmental policies
3. Environmental social issues
4. Fundamental Rights

Unit	Topic	No. of Lectures
I	**Environmental Pollution** 1. Environmental pollution : definition, types, causes, effects and control; Air, Water, Soil and Noise pollution. 2. Nuclear hazards and human health risks. 3. Role of an individual in prevention of pollution. 4. Disaster management : floods, earthquake, cyclone and landslidees.	6
II	**Environmental Policies** 1. Environment Laws : Environment Protection Act; Air (Prevention and Control of Pollution) Act; Water (Prevention and Control of Pollution) Act; Wildlife protection Act; Forest Conservation Act. 2. Nature reserves, tribal population and rights, human conflicts in Indian context.	6
III	**Human Population and Environment** 1. Population growth, variation among nations. 2. Population explosion - Family welfare programme. 3. Environment and Human Health. 4. Value Education 5. Role of Information Technology in Environment and Human health	6

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IV	**Social Issues and the Environmental Management** 1. Urban problem related to energy. 2. Water conservation, rain water harvesting, watershed management. 3. Resettlement and rehabilitation of people; its problem and concerns. 4. Environmental ethics : Issues and possible solutions. 5. Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture.	6
V	**Fundamental and Human Rights** 1. Human Rights 2. Women and Child Welfare 3. Fundamental Rights under the Constitution of India. 4. Fundamental Duties under the Constitution of India.	6

Keywords/Tags- Pollution, Policies, Value Education, Social Issues, Human Rights

Part C: **Learning** Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Text Books:

Agarwal K.C. 2001 Environmental Biology, Nidi pub. Ltd. Bikaner

8. Bharucha Erach, the Biodiversity of India, Mapin pub. Ltd. Ahmedabad 380013, India, Email:
mapin@icenet.net(R)

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Eng. Institute. Oxford University, Press. m 473p.

15. Hawkins R.E. Encyclopedia of Indian Natural History, Bombay Natural History Society, Mumbai (R)

16. Heywood, V.H. & Watson, T.T.1995 Global Biodiversity Assessment, Cambridge Univ. Press 1140p

17. Jadhav H. & Bhosale, V.H. 1995 Environmental Protection and Law. Himalaya pub. House, Delhi 284p

18. Mckinney M.L.& School R.M.1996, environmental Science systems & solutions, web enhanced edition, 639p

19. Mhadkar A.K. Matter Hazardous, Techno-Science publication(TB)

20. Miller T.G.Jr. Environment Science, Wadsworth publication co. (TB)

21. Odum E.P.1971, Fundamentals of Ecology, W.B. Saunders Co. USA,574p

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28. Wanger K.D.1998, Environmental Management. W.B. Saunders Co. Philadelphia, USA 499p

29.SK Kapoor- Human rights under International Law and Indian Law.

30. HO Agrawal- Internation Law and Human Rights

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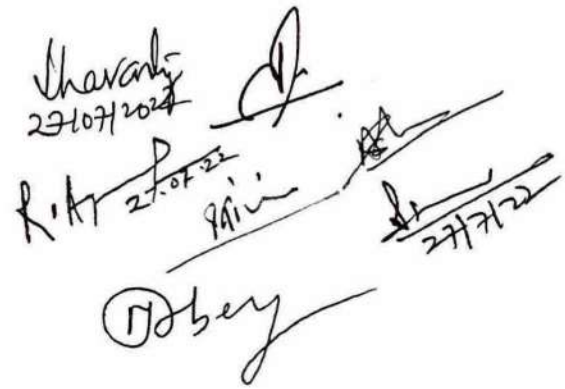
Part D: Assessment and Evaluation		
Suggested Continuous Evaluation Methods: Maximum Marks: 50 Continuous Comprehensive Evaluation (CCE): ----Marks University/Autonomous Exam (U/AE): 50 Marks		
Internal Assessment: Continuous Comprehensive Evaluation (CCE)	Class Test Assignment/Presentation	Total Marks: 50
External Assessment: University Exam (UE) Time: …3… Hours	Section (A): Three Very Short Questions 150 Words Each) Section (B): Four Short Questions (200 Words Each) Section (C): Two Long Questions 1500 Words Each)	Total **Marks: 50**



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Govt.J.Yoganandam Chhattisgarh College,
Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	Class: B.Com	Semester-1st	**Year:** 2022	**Session: 2022-23**

Subject: Financial Accounting

1	**Course Code**	COM-101			
2	**Course Title** (Name of Paper)	Financial Accounting			
3	**Course Type**	Core Course			
4	**Pre-requisite (if any)**	**To** study this course, a student must have had the subject in class 12th.			
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: 1. Apply the generally accepted accounting principles while recording transactions and preparing financial statement 2. Prepare final accounts including profit and loss account and balance sheet 3. Evaluate the importance of depreciation in financial statement 4. Prepare financial statements of partnership firms 5. Prepare accounts of inland branches 6. Prepare accounts for not for profit organisations 7. Prepare cash book and other accounts necessary while running a business			
6	**Credit Value**	Theory:	Internal Test	Tutorial/Field Work	
7	**Total Marks**	Max. Marks: 80	Max. Marks: 10	Max. Marks: 10	Min. Passing Marks: 35

Part B: Content of the Course

Total Period : 75

Self Study :

1. **Introduction to Accounting**
2. **Theory Base of Accounting**
3. **Recording of Transaction**
4. **Basic concept of Partnership**
5. **Analysis of Financial statement**

Unit		No. of Lectures
I	Theoretical framework: (i)Accounting as an information system,the users of a financial accounting information and their needs. Qualitative characteristics of accounting information. Functions, advantages and limitations of accounting. Branches of accounting. (ii)Basic accounting principles (iii) Accounting standards:International accounting standard only outline, Accounting standard in India. (b) Accounting transaction:Concept of double entry system, concept of capital and revenue, Book of original records: Journal;ledger; sub-division of Journal: cash book.	**15**

1.1.1, 1.1.2, 1.2.1

	(अ) सैद्धांतिक ढांचा (i) एक सूचना प्रणाली के रूप में लेखांकन, वित्तीय लेखांकन जानकारी के उपयोगकर्ता और उनकी आवश्यकताएं लेखांकन जानकारी की गुणात्मक विशेषताएं लेखांकन के कार्य, लाभ और सीमाएं लेखांकन की शाखाएं। (ii) आधारभूत लेखांकन सिद्धांत (iii) लेखा मानक अंतराष्ट्रीय लेखा मानक केवल रूपरेखा, भारत में लेखा मानक (ब) लेखांकन लेनदेनः दोहरा प्राविष्टि प्रणाली की अवधारणा, पूंजी और आगम की अवधारणा, मूल अभिलेखों की पुस्तक जनरल, खाता बही, जनरल का सबडिवीजन रोकड़ पुस्तक।	
II	Final accounts ;Trial balance; Manufacturing account; Trading account; profit and loss account; Balance sheet; Adjustment entries. Rectification of errors; classification of errors; location of error; suspense account ;effect on profit अंतिम खाते, तलपट, निर्माणी खाता, व्यापारिक खाता, लाभ हानि खाता, स्थिति विवरण, समायोजन प्रविष्टियां त्रुटियों का सुधार, त्रुटियों का वर्गीकरण, त्रुटियों का पता लगाना, त्रुटियों का सुधार, उचन्त खाता, लाभ पर प्रभाव।	**15**
III	a)The nature of depreciation. Accounting concept of depreciation. Factors in the measurement of depreciation.Methods of computing depreciation: straight line method and diminishing balance method; disposal of depreciable assets; change in the method of depreciation and its impact of on measurement of business income. (b)Accounting for Not- for-profit organisations (अ) मूल्य ह्रास की प्रकृति, मूल्य ह्रास की लेखांकन अवधारणा मूल्य ह्रास की माप के कारण मूल्यह्रास की गणना के तरीके , सीधी रेखा विधि और क्रमागत ह्रास पद्धति मूल्यह्रास संपत्ति का निपटान, मूल्यह्रास की पद्धति में परिवर्तन और व्यवसाय आय के मापन पर इसका प्रभाव। (ब) गैर लाभकारी संगठनों के लिए लेखांकन	**15**
IV	Financial statements of partnership firms: Partnership accounts: Dissolution of a partnership firm; Amalgamation of partnership firms, conversation of partnership firm into joint stock company. साझेदारी फर्म के वित्तीय विवरण साझेदारी खाते एक साझेदारी फर्म का विघटन, साझेदारी फर्म का समामेलन, साझेदारी फर्म का सयुक्त पूंजी कंपनी में बदलना।	**15**
V	Accounting for branch: Concept of dependent branches; Branch accounting-debtors system, stock and debtors' system,branch final account system and wholesale basis system. Independent branches: concept,accounting treatment with necessary adjustment entries; Incorporation of branch trial balance in head office books for home branches. शाखा के खाते आश्रित शाखाओं की अवधारणा शाखा लेखांकन देनदार प्रणाली स्टॉक और देनदार प्रणाली स्वतंत्र शाखाएं अवधारणा, आवश्यक समायोजन प्रविष्टियों के साथ लेखांकन गृह शाखाओं के लिए प्रधान कार्यालय की पुस्तकों में शाखा के तलपट का समायोजन।	**15**

Keywords/Tags-Account,Branch,Deperciation,Partnership firm,Balance Sheet

1.1.1, 1.1.2, 1.2.1

Part C: **Learning** Resources
Text Books. Reference Books, Other Resources
Suggested Readings: Anthony, R. N., Hawkins, D., & Merchant, K. A. (2010). Accounting: Text and Cases. New York: McGraw-Hill Education India. Dam, B. B., & Gautam, H. C. (2019). Financial Accounting. Guwahati: Gayatri Publications. Horngren, C. T., & Philbrick, D. (2017). Introduction to Financial Accounting. London: Pearson Education. Lal, J., & Srivastava, S. (2012). Financial Accounting Text & Problems. Mumbai: Himalaya Publishing House. Monga, J. R. (2017). Financial Accounting: Concepts and Applications. New Delhi: Mayur Paperback Publishing. Shukla, M. C., Grewal, T. S., & Gupta, S. C. (2016). Advanced Accounts. Vol.-I. New Delhi: Sultan Chand Publishing. Maheshwari, S. N., Maheshwari, S. K., & Maheshwari, S. K. (2018). Financial Accounting. New Delhi: Vikas Publishing House Pvt. Ltd. Sehgal, D. (2014). Financial Accounting. New Delhi: Vikas Publishing House Pvt. Ltd. Goyal, B. K., & Tiwari, H. N. (2019). Financial Accounting. New Delhi: Taxmann Publication. Goldwin, N., Alderman, W., & Sanyal, D. (2016). Financial Accounting. Boston: Cengage Learning. Tulsian, P. C. (2002). Financial Accounting. Chennai: Pearson Education.

1.1.1, 1.1.2, 1.2.1

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Objective: The course aims to acquaint the learners with the broader framework of economic systems, role and implications of macro-economic activities on economic system like savings, investments, employment, growth, and Business cycles.

COURSE CONTENTS

Unit	Unit wiseWeightage of Marks (in %)	C&K	A&A
1. Nature and Scope of Macro Economics	15	√	√
2. National Income	15	√	√
3. Macro-Economic theory	15	√	√
4. Savings and Investment	15	√	√
5.Business Cycle and Value of Money	15	√	√

Part A: Introduction

Programme : Certificate Course	Class: B. Com.	Semester-I	Year: 2022	Session: 2022-23

Subject: Commerce

1	**Course Code**	COM-102			
2	**Course Title** (Name of Paper)	Macro Economics			
3	**Course Type**	Core Course			
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject Commerce in class 12th.			
5	**Course Learning Outcomes** (CLO)	After completion of the course, learners will be able to: 1. Explain the basic concepts related to national income, employment, savings, investments monetary theory,savings and investment function. 2. Measure National Income and examine the problems related to measurement of national income in context toIndia. 3. Examine how an economy functions. Evaluate the role of consumption, saving and investment in an economy. 4. Evaluate the impact of various economic phenomena like inflation and deflation. 5. Explain concepts like Business cycle, multiplier, accelerator and demonetization.			
6	**Credit Value**	Theory:	Internal Test	Tutorial/Field Work	
7	**Total Marks**	Max. Marks: 80	Max. Marks: 10	Max. Marks: 10	Min. Passing Marks: 35

1.1.1, 1.1.2, 1.2.1

Part-B : Content of the Course

Total Period : 75

Self Study :

1. Micro Economics
2. National Income
3. Saving and Investment
4. Value of Money

Unit		No. of Lectures
I	**Nature and Scope of Macro Economics** Basic concepts, Distinction between Macroeconomics and Microeconomics Macro-Economic Concepts like national income, employment, savings, and investments समष्टि अर्थशास्त्र की प्रकृति एवं क्षेत्र, मूलभूत अवधारणा, व्यष्टि तथा समष्टि अर्थशास्त्र में अंतर की अवधारणा जैसे राष्ट्रीय आय, रोजगार, बचत तथा विनियोग ।	15
II	**National Income** National Income: Usefulness and significance; Different Concepts GDP, NNP, GNI, NNI; National Income at market price and constant price. Measurement of National Income in India, Limitations and challenges of NationalIncome. **राष्ट्रीय आय** –राष्ट्रीय आय का महत्व तथा उपयोग, अवधारणाएं, जीडीपी, एनएनपी, जीएनपी, जीएनआई, एनएनआई, बाजार मल्य पर राष्ट्रीय आय, स्थिर मूल्य पर राष्ट्रीय आय, सीमाएं एवं चुनौतियां ।	15
III	**Savings and Investment** Concept of savings, Determinants of savings, saving function Concept of multiplier, Functioning of multiplier, Investment –Investment function, determinants of business fixed investment, effect of tax, determinants of residential investment and inventory investment. **बचत तथा विनियोग –बचत की आवधारणा, बचत कियायें, बचत का बहुलीकरण,** **विनियोग** –विनियोग की कियाएं व्यवसाय में स्थायी विनियोग, विनियोग का कर पर प्रभाव, घरेलू विनियोग एवं आगम विनियोग ।	15
IV	**Business Cycle** Business cycle: Concept, Inflation: concept, Recessionary trends, its effect on different sectors of economy. व्यवसाय चक्र–व्यवसाय **चक्र, अवधारणाा, मुद्रा स्फिति, मुद्रा स्फिति की अवधारणा, अवस्फिति की प्रवृत्ति, विभिन्न क्षेत्रों का प्रभाव, अवस्फिति की अवधारणा, गुण तथा प्रभाव ।**	15
V	**Value of Money:** Concept, theories- Demonetization- concept and its implications on Economic Development, MonetaryPolicy, fiscal policy. मौद्रिक नीति –मुद्रा का मूल्य, अवधारणा, सिद्धांत, मुद्रा की मांग, विमुद्रीकरण, अवधारणा, प्रभाव, आर्थिक विकास में प्रभाव, मौद्रिक नीति, राजकोषीय नीति ।	15

1.1.1, 1.1.2, 1.2.1

Practical Exercises:

The learners are required to:

1. Prepare a statement of items to be included and excluded while calculating national income;
2. Develop a flow chart of different sectors contribution to national income;
3. Prepare a cause and effect statement of changes in interest rate and its effect on saving rate;
4. Prepare a chart indicating impact of inflation on different sectors of economy;
5. Explain effects of demonetization on different sectors through charts.

Keywords/Tags-

Macro Economics, National Income, Saving and Investment Value of Money

Part C: Learning Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Chaturvedi, D. D., & Gupta, S. L. (2010). *Business Economics Theory & Applications.* New Delhi: InternationalBook House Pvt. Ltd.

Cohn, S. M. (2015). *Reintroducing Macro Economics: A Critical Approach.* Abingdon: Routledge. Dwivedi, D. N. (2019). *Macro Economics.* Chennai: Mc G raw Hill Education.

Mankiw, N. G. (2012). *Principles of Macroeconomics.* Boston: Cengage Learning. Mithani, D. M. (2019). *Macro Economics.* Mumbai: Himalaya Publishing House Pvt. Ltd.

Muniraju, M., & Podder, K. (2014). *Macro Economics for Business Decisions.* Mumbai: Himalaya PublishingHouse Pvt. Ltd.

Jhingan, M. L. (2019). *Macro Economics Theory.* Delhi: Vrinda Publications Pvt. Ltd.

Samuelson, P. A., & Nordhaus, W. D. (2015). *Macro Economics.* New York: McGraw Hill Education.Relevant study material from

Note: Learners are advised to use latest edition of text books.

Reference Books:

1.

Suggested Digital Platforms Web.links:

1. ICAI Website: https://www.icai.org/

1.1.1, 1.1.2, 1.2.1

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Objective: The course aims to give the learners a broad understanding about important aspects of legalenvironment of business; to make them study how various special contracts are brought into force; and to impartknowledge about legal agreement so that they get acquainted with the process of establishing legal relationships and to have knowledge of various measures protecting the interest of the consumers.

COURSE CONTENTS

Unit	Unitwise Weightage of Marks (in %)	C&K	A&A
Unit 1: Indian Contract Act, 1872	**15**	√	√
Unit 2: Sale of Goods Act, 1930	**15**	√	√
Unit 3: Indian Partnership Act, 1932 and Limited LiabilityPartnership Act, 2008	**15**	√	√
Unit 4: Competition Act, 2002 and Consumer Protection Act, 2019	**15**	√	√
Unit 5: Foreign Exchange Management Act 1999	**15**	√	√

Part A: Introduction

Programme : Certificate Course	**Class: B. Com.**	**Semester-I**	**Year: 2022**	**Session: 2022-23**

Subject: Commerce

1	**Course Code**	CON-103			
2	**Course Title** (Name of Paper)	**Business Law**			
3	**Course Type**	Core Course			
4	**Pre-requisite (if any)**	**To** study this course, a student must have had the subject Commerce in class 12th.			
5	**Course Learning Outcomes** (CLO)	After the completion of the course, the learners will be able to: 1. Examine various aspects of entering into a contract and implications of different types of contract; 2. Interpret the regulation governing the Contract of Sale of Goods; 3. Discuss the laws governing partnership and legal consequences of their transactions and other actions in relation with the partnership, and examine contractual obligations and provisions governing limited liabilitypartnership; 4. Describe the significant provisions of the Competition Act to prevent practices having adverse effect on competition and provisions of the Consumer Protection Act to protect the interest of the consumers; 5. Explain the law governing regulation and management of foreign exchange under FEMA.			
6	**Credit Value**	Theory:	Internal Test	Tutorial/Field Work	
7	**Total Marks**	Max. Marks: 80	Max. Marks: 10	Max. Marks: 10	Min. Passing Marks: 35

1.1.1, 1.1.2, 1.2.1

Part-B : Content of the Course

Total Period : 75

Self Study :

1. Contract Act.
2. Goods Act.
3. Partnership Act.
4. Consumer protection Act.
5. Foregin exchange management Act.

Unit		No. of Lectures
I	**Indian Contract Act, 1872** Nature of contract and its essentials, Void, valid and voidable contracts, Consent, consideration and its' impact on contract, Agreements in restraint of trade, Performance, breach, revocation and termination of contract, Agency and bailment contracts, Contract of Indemnity, Contract of Guarantee and Pledge. भारतीय अनुबंध अधिनियम, 1872 अनुबंध की प्रकृति और इसकी अनिवार्यताएं, व्यर्थ, वैध और व्यर्थनीय अनुबंध सहमति प्रतिफल और अनुबंध पर इसका प्रभाव व्यापार में समावट डालने वाले ठहराव, अनुबंध का निष्पादन, उल्लघन, निरस्तीकरण और समाप्ति एजेंसी और निक्षेप के अनुबंध, क्षतिपूर्ति के अनुबंध हानिरक्षा और गिरवी के अनुबंध।	15
II	**Sale of Goods Act, 1930** Nature of sale, conditions and warranties, Performance of contract of sale and right of unpaid seller. वस्तु विक्रय अधिनियम 1930 विक्रय की प्रकृति, शर्तें और वारंटी विक्रय अनुबंध का निष्पादन और अदत्त विक्रेता का अधिकारी।	15
III	**Indian Partnership Act, 1932 and Limited Liability Partnership Act, 2008** General nature of Partnership, Rights and duties of Partners, Reconstitution of Firm and Registration anddissolution. Formation and incorporation of LLP, Partners and their relations, financial disclosures, conversion into LLP, Foreign LLP, Winding up and dissolution. भारतीय साझेदारी अधिनियम, 1932 और सीमित दायित्व साझेदारी अधिनियम, 2008 साझेदारी की सामान्य प्रकृति, साझेदारो के अधिकार और कर्तव्य, फर्म का पुनर्गठन और पंजीकरण और विघटन सीमित दायित्व साझेदारी का गठन और निगमन, साझेदार और उनके संबंध, वित्तीय प्रकटीकरण, एलएलपी में रूपांतरण, विदेशी एलएलपी, समापन और विघटन।	15

IV	**Consumer Protection Act, 2019** **Consumer Protection Act, 2019:** Important definitions, Consumer Disputes Redressal Commission, Measures to Prevent Unfair Trade Practices, Offences and Penalties उपभोक्ता संरक्षण अधिनियम, 2019 उपभोक्ता संरक्षण अधिनियम, 2019: महत्वपूर्ण परिभाषाएं, उपभोक्ता विवाद निवारण आयोग, अनुचित व्यापार व्यवहारों को रोकने के उपाय, अपराध और दंड	15
V	**Foreign Exchange Management Act, 1999** Important definition, Regulation and management of foreign exchange, RBI Guidelines on KYC. विदेशी मुद्रा प्रबंधन अधिनियम, 1999 महत्वपूर्ण परिभाषा, विदेशी मुद्रा का विनियमन और प्रबंधन, केवाईसी पर आरबीआई दिशानिर्देश।	15
Keywords/Tags- 1. Contract Act. 2. Goods Act. 3. Partnership Act. 4. Consumer protection Act. 5. Foregin exchange management Act.		
Practical Exercises: Field Work/Project Work The learners are required to: 1. Enlist steps involved in execution of contract. 2. Enlist steps involved in agreement to sale. 3. Enlist steps involved in discharge of contract. 4. Prepare agreement to sale and contract related to sale of movable property, pledging of property,indemnity & guarantee bond etc. 5. Enlist the various KYC documents for opening of bank account, e-wallet account, mutual fund account,bank locker, etc.		

Part C: Learning Resources

Suggested Readings:

Bose, D. C. (2008). *Business Law*. New Delhi: PHI Limited.
Chopra, R. K. (2015). *Business Laws*. New Delhi: Himalaya Publishing House. Kuchhal, M. C., & Kuchhal, V. (2018). Business Laws. New Delhi: Vikas Publishing.Singh, A. (2009). *Business Law*. Delhi: Eastern Book Company.

Note: Learners are advised to use latest edition of text books.

Reference Books:

2.

Suggested Digital Platforms Web.links:

Govt.J.Yoganandam Chhattisgarh College,
Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	**Class: B.Com**	**Semester-2nd**	**Year: 2022**	**Session: 2022-23**

Subject: Business Mathematics

1	**Course Code**	COM-201			
2	**Course Title** (Name of Paper)	Business Mathematics			
3	**Course Type**	Core Course			
4	**Pre-requisite (if any)**	**To** study this course, a student must have had the subject ..... in class 12'h.			
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: 1. Explain how Matrix are used as mathematical tools in representing a system of equations; 2. Describe relationship between quantity, price and other variables such as income by using simultaneous equation; 3. Present data in simple, summarized and comparison form by using average, ratio, proportion and percentage ; 4. Apply mathematical formulation and solution of problems related to finance including different method of interest calculation, future and present value of money; 5. Solve business problems involving complex linear and non-linear relationships between decision variables and their determining factors.			
6	**Credit Value**	Theory:	Internal Test	Tutorial/Field Work	
7	**Total Marks**	Max. Marks: 80	Max. Marks: 10	Max. Marks: 10	Min. Passing Marks: 35

Part B: Content of the Course

Total Period : 75

Self Study :

1. **Algebraic Expression and Identities**
2. **Data handling**
3. **Fractions and Decimals**
4. **Introduction to Graphs**
5. **Comparing Quantites**

Unit		No. of Lectures
I	Matrix and Determinants: Definition and types of matrix, algebra of matrix, properties of determinants, calculation of value of determinants up to third order। Logarithm's & anti-logarithm's। आव्यूह और सारणिक आव्यूह की परिभाषा, आव्यू हके प्रकार आव्यूहों का बीजगणितीय सक्रिया अथवा क्रियाकलाप , सारणिक के गुण (विशेषताएं), तीसरे क्रम तक सारणिक के मूल्यों की गणना लघुगणक एवं प्रतिलघुगणक	**15**

II	Simultaneous equations- Meaning,characteristics, method of solving equations in two variables- Graphical, substitution,elimination and cross multiplication। Ratio & Proportion युगपत समीकरण आशय, विशेषताएं, दो चरों में रेखीय समीमरण को हल करने की विधियां बिंदु रेखीय, प्रतिस्थापन, विलोपन, वज्र गुणन विधि। अनुपात और समानुपात।	15
III	Commission,brokerage, discount,profit and loss। कमीशन, दलाली, बट्टा, लाभ एवं हानि।	15
IV	Mathematics of finance: Simple interest and compound interest. Annuities: Types of annuities,present value and amount of an annuity, including the case of continuous, valuation of simple loans and debentures, problems related to sinking funds. वित्त का गणित साधारण ब्याज एवं चक्रवर्ती ब्याज। वार्षिकी–वार्षिकी के प्रकार, वर्तमान मूल्य और वार्षिकी की राशि सतत् संयोजन सहित सरल ऋण और ऋण पत्रों के मूल्यांकन, शोधन कोष से संबंधित समस्या।	15
V	Linear programming- Formulation of linear programming, Graphical method of solution, problems relating to two variables including the case of mixed constraints. Average and percentage. रेखीय प्रक्रमण समस्या के निर्माण, हल करने की ग्राफिक विधि, मिश्रित बाध्यताएं से संबंधित दो चरों वाली समस्याएं। औसत और प्रतिशतता।	15
Keywords/Tags-Matrix,Determinants,Interest,Annuity,Percentage,Average.		

Part C: **Learning** Resources
Text Books. Reference Books, Other Resources
Suggested Readings: Anthony, M., & Biggs, N. (1996). Mathematics for Economics and Finance. Cambridge: Cambridge University Press. Ayres, F. J. (1963). Theory and Problems of Mathematics of Finance. New York: McGraw Hill Publishing. Budnick, P. (1986). Applied Mathematics for Business, Economics, & Social Sciences. New York: McGraw Hill Publishing. Dowling, E. (2011). Introduction to Mathematical Economics. New York: McGraw Hill Publishing Kapoor, V. K., & Sancheti, D. C. (2014). Business Mathematics, Theory & Applications. Delhi: S. Chand Publishing. Sharma, S. K., & Kaur, G. (2019). Business Mathematics. Delhi: S. Chand Publishing. Thukral, J. K. (2017). Business Mathematics. New Delhi: Maximax Publishing

Govt.J.Yoganandam Chhattisgarh College,
Raipur (C.G.)

Objective: To acquaint learners with the basics of Business concepts and functions, forms of Business Organization and functions of Management.

COURSE CONTENTS

Unit	Unitwise Weightage of Marks (in %)	C&K	A&A
1. Concept and Forms of Business Organisations	15	√	√
2. Organizing	15	√	√
3. Principles and Functions of Management	15	√	√
4. Planning and Organizing	15	√	√
5. Managerial Control and Coordination Control	15	√	√

Part A: Introduction

Programme : Certificate Course	Class: B.Com.	Semester- II	Year: 2022	Session:2022-23

Subject: Commerce

1	**Course Code**	COM-202			
2	**Course Title** (Name of Paper)	Business Organization and Management			
3	**Course Type**	Core Course			
4	**Pre-requisite (if any)**	**To** study this course, a student must have had the subject Commerce in class 12th.			
5	**Course Learning Outcomes** (CLO)	**Learning Outcomes:** After completion of the course, the learners will be able to: 1. Distinguish and explain each form of business. 2. Prepare draft of Article of Association & Memorandum of Association for a business; 3. Explain principles and functions of management implemented in the organisation; 4. Identify and explain the managerial skills used in business; 5. Analyse the concept of Delegation of Authority, coordination, and control			
6	**Credit Value**	Theory:	Internal Test	Tutorial/Field Work	
7	**Total Marks**	Max. Marks: 80	Max. Marks: 10	Max. Marks: 10	Min. Passing Marks: 35

Part-B : Content of the Course

Total Period : 75

Self Study :

1. Business organization
2. Business management
3. Planning
4. Managerial control

Unit		No. of Lectures
I	**Concept and Forms of Business Organizations** Concepts of Business, Trade, Industry and Commerce- Objectives and functions of Business–Social Responsibility of a business. Forms of Business Organization-Meaning, Characteristics, Advantages and Disadvantages of Sole Proprietorship – Meaning, Characteristics, Advantages and Disadvantages of Partnership - Kinds of Partners - Partnership Deed - Concept of Limited liability partnership – Meaning, Characteristics, Advantages and Disadvantages. व्यावसायिक संगठनों की अवधारणा और रूप व्यापार, उद्योग और वाणिज्य की अवधारणाएं – व्यवसाय संगठन के रूप – एकमात्र स्वामित्व के अर्थ, लक्षण, लाभ और हानि – साझेदारी के अर्थ, लक्षण, लाभ और हानि – साझेदारी के प्रकार – साझेदारी विलेख – सीमित दायित्व साझेदारी की अवधारणा – अर्थ, लक्षण, लाभ और हानि।	15
II	**Organizing** – Concept Nature process and significance, Authority and resident relationship centralization and decentralization, Departmentation, Organization structure, form and Contingency factors. संगठन – अवधारणा प्रकृति प्रक्रिया और महत्व, प्राधिकरण और निवासी संबंध केंद्रीकरण और विकेंद्रीकरण, विभाग, संगठन संरचना, रूप और आकस्मिक कारक।	15
III	**Principles and Functions of Management** Management - Meaning - Characteristics - Fayol's 14 Principles of Management. Functions of Management - Levels of Management – Skills of Management- Scientific Management - meaning, objectives, relevance and criticism. प्रबंधन के सिद्धांत और कार्य प्रबंधन - अर्थ - लक्षण - फेयोल के प्रबंधन के 14 सिद्धांत। प्रबंधन के कार्य - प्रबंधन के स्तर - प्रबंधन के कौशल - वैज्ञानिक प्रबंधन - अर्थ, उद्देश्य, प्रासंगिकता और आलोचना।	15
IV	**Planning and Organizing** Meaning, Characteristics, Types of Plans, Advantages and Disadvantages – Approaches to Planning - Management by Objectives (MBO) - Steps in MBO - Benefits –Weaknesses. Organizing - Process of Organizing; Principles of Organization - Formal and Informal Organizations - Line, Staff Organisations, Line and Staff Conflicts. Functional Organisation, Span of Management - Meaning - Determining Span - Factors influencing theSpan of Supervision. नियोजन और संगठन अर्थ, विशेषताएं, नियोजन के प्रकार, लाभ और नुकसान - नियोजन के दृष्टिकोण - उद्देश्यों दवारा प्रबंधन (एमबीओ) - एमबीओ में कदम - लाभ - कमजोरियां। संगठन - संगठन की प्रक्रिया; संगठन के सिद्धांत -	15

	औपचारिक और अनौपचारिक संगठन - रेखा, कर्मचारी संगठन, रेखा और कर्मचारी संघर्ष। कार्यात्मक संगठन, प्रबंधन की अवधि - अर्थ - अवधि का निर्धारण - पर्यवेक्षण की अवधि को प्रभावित करने वाले कारक।	
V	**Managerial Control and Coordination Control** Meaning Concept and Process, Effective Control System, Technical Control, Traditional and Modern Control-Meaning, Relationship between planning and control, Steps in Control – Types (post, current, and pre- control). Requirements for effective control. **प्रबंधकीय नियंत्रण और समन्वय नियंत्रण** अर्थ अवधारणा एवम प्रक्रिया, प्रभावी नियंत्रण प्रणाली, तकनीकी नियंत्रण, पारंपरिक एवम आधुनिक नियंत्रण-अर्थ, नियोजन और नियंत्रण के बीच संबंध, नियंत्रण में कदम - प्रकार (पोस्ट, करंट और प्री-कंट्रोल)। प्रभावी नियंत्रण के लिए आवश्यकताएँ।	15

Keywords/Tags-

1. Business organization
2. Business management
3. Planning
4. Managerial control

Practical Exercises/Field Work/Project Work: The learners are required to:-

1. Complete the exercise wherein they are given different situations and scenarios to start their own business(in terms of capital, liability, scale of operations, etc.) and are asked to select the most suitable form of business and justify the same highlighting the advantages and disadvantages of their choice.
2. Prepare the Article of Association & Memorandum of Association/rules and regulations/bye laws for theform of business organization chosen in Unit 1.
3. Participate in role play activity for describing the various levels of Management and the ways the 14 Principles of Management are used in defining the policies of the chosen organization.
4. Participate in simulation activity wherein each learner is asked to prepare plans with respect to increasingthe effectiveness in their respective organization.
5. Participate in simulation activity wherein learners are asked to draft roles and responsibilities of membersin the chosen organization.

Part C: Learning Resources

Suggested Readings:

Basu, C. R. (1998). *Business Organization and Management*. New Delhi: McGraw Hill

Chhabra, T. N. (2011). *Business Organization and Management*. New Delhi: Sun India Publications. Gupta, C. B. (2011). *Modern Business Organization*. New Delhi: Mayur Paperbacks.

Kaul, V. K. (2012). *Business Organization and Management, Text and Cases*. New Delhi: Pearson Education.Koontz, H., & Weihrich, H. (2008). *Essentials of Management*. New York: McGraw Hill Education.

Singh, B. P., & Singh, A. K. (2002). *Essentials of Management*. New Delhi: Excel Books.

Note: Learners are advised to use latest edition of text books.

Reference Books:

1.

Suggested Digital Platforms Web.links:

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	Class: **B. Com.**	**Semester-II**	**Year: 2022**	**Session: 2022-23**

Subject: COMMERCE

1	**Course Code**	COM-203
2	**Course Title** (Name of Paper)	**COMMUNICATION AND DOCUMENTATION IN BUSINESS**
3	**Course Type**	Core Course
4	**Pre-requisite (if any)**	**To** study this course, a student must have had the subject ..... in class 12'h.
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: 1. Realize the significance of effective communication in business; 2. Learn business vocabulary and understand varied ways/methods to present business plans; 3. Gain knowledge on drafting of official letters and documents; 4. Develop appropriate skills for report writing and different ways of documentation; 5. Explain the role of information technology for enabling business communication and documentation.

6	**Credit Value**	Theory:	Internal Test	Tutorial/Field Work	
7	**Total Marks**	Max. Marks: 80	Max. Marks: 10	Max. Marks: 10	Min. Passing Marks: 35

Part B: Content of the Course

Total Period : 75

Self Study :

1. **Communication – संचार**
2. **Letter writing – पत्र लेखन**
3. **Report writing – रिपोर्ट लेखन**
4. **Modern forms of Communication – संचार के आधुनिक साधन**

Unit		No. of Lectures
I	**Introduction Business Communication** Meaning, Importance and process of communication, concept and Significance of communication, Basic forms of communicating; Communication models, principles of effective communication; व्यावसायिक संचार का परिचय: संचार का अर्थ, महत्व और प्रक्रिया, संचार की अवधारणा और महत्व, संचार के मूल रूप; संचार मॉडल, प्रभावी संचार के सिद्धांत;	15
II	**Corporate Communication** Formal and informal communication networks; Grapevine; Miscommunication (Barriers); Improving communication. Practices in business communication: Group discussions; Seminars; Effective listening Principles of effective listening; Factor affective listening exercises; कॉर्पोरेट संचार: औपचारिक और अनौपचारिक संचार नेटवर्क; अंगूर; गलत संचार (बाधाएं); संचार में सुधार। व्यापार संचार में अभ्यास: समूह चर्चा; सेमिनार; प्रभावी श्रवण के प्रभावी श्रवण सिद्धांत; फैक्टर अफेक्टिव लिसनिंग एक्सरसाइज	15
III	**Business Correspondence** Business letters-Definition, concepts, structure, advantage disadvantage need and kinds of business letters Essentials of effective business letter. Good news and bed newsletters; Office memorandum. Writing Resume and Letter of job Application. व्यावसायिक पत्र-परिभाषा, अवधारणा, संरचना, लाभ हानि आवश्यकता और व्यावसायिक पत्र के प्रकार प्रभावी व्यावसायिक पत्र की अनिवार्यता। अच्छी खबर और प्रतिकूल समाचार पत्र; कार्यालय ज्ञापन। रिज्यूमे लिखना और नौकरी आवेदन पत्र।	15
IV	**Report Writing** Introduction to a proposal, short report and formal report, report preparation. Oral Presentation: Principles of oral presentation, factors affecting presentation, sales presentation, training presentation, conducting surveys, speeches to motivate, presentation skills. रिपोर्ट लेखन: प्रस्ताव का परिचय, संक्षिप्त रिपोर्ट और औपचारिक रिपोर्ट, रिपोर्ट तैयार करना। मौखिक प्रस्तुति: मौखिक प्रस्तुति के सिद्धांत, प्रस्तुति को प्रभावित करने वाले कारक, बिक्री प्रस्तुति, प्रशिक्षण प्रस्तुति, सर्वेक्षण आयोजित करना, प्रेरित करने के लिए भाषण, प्रस्तुति कौशल।	15

V	**Modern Forms of Communication** Modern Forms of Communicating: Fax; E-mail; Video conferencing; etc. International Communication & International Communication. Adopting to global Business ie. E Commerce. संचार के आधुनिक रूप: फैक्स; ईमेल; वीडियो कॉन्फ्रेंसिंग; आदि। अंतर्राष्ट्रीय संचार और अंतर्राष्ट्रीय संचार। वैश्विक व्यवसाय मे अंतर्राष्ट्रीय सम्प्रेषण जैसे ई कॉमर्स।	15

Keywords/Tags-

1. **Communication – संचार**
2. **Letter writing – पत्र लेखन**
3. **Report writing – रिपोर्ट लेखन**
4. **Modern forms of Communication – संचार के आधुनिक साधन**

Part C: **Learning** Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Text Books:

1. Dr. P. K. Agrawal, Dr. A. K. Mishra; Business Communication; Sahitya Bhawan Publication; Agra (Hindi medium)
2. Balasubramanyam: Business Communication; Vikas Publishing House, Delhi. (English Medium)
3. Dr. Vinod Mishra: Business Communication; Sahitya Bhawan Publication; Agra (Hindi medium)
4. Kaul: Effective Business Communication; Prentice Hall, New Delhi. (English medium)
5. Patri VR: Essentials of Communication; Green Publications, New Delhi. (English medium)
6. Denguin J: Business Communication; The Real World and Your Career, Allied Publishers, Delhi. (English Medium)
7. Dr. Mishra, Shukla & Patel; Business Communication; SBPD Publishing House, Agra. (Both Hindi and English medium).

Andrews, D. C., & Andrews, W. D. (2003). *Management Communication: A Guide.* Boston: Cengage Learning.

Canavor, N. (2012). *Business Writing in the Digital Age.* California: SAGE Publications.

Guffey, M. E., & Loewy, D. (2013). *Essentials of Business Communication.* Boston: Cengage Learning.

Locker, K., & Kaczmarek, S. (2009). *Business Communication: Building Critical Skills.* New York: McGraw Hill Education.

Newman, A. (2017). *Business Communication: In Person, In Print, Online.* Boston: Cengage Learning.

Shirley, T. (2005). *Communication for Business.* London: Pearson Education.

Smallwood, R. F., & Williams, R. F. (2013). *Managing Electronic Records: Methods, Best Practices, and Technologies.* New Jersey: John Wiley and Sons.

Wilson, K., & Wauson, J. (2011). *The AMA Handbook of Business Documents: Guidelines and Sample Documents That Make Business Writing Easy.* New York: AMACOM.

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Part A: Introduction				
Programme : Certificate Course	**Class: B.Com**	**Semester- I**	**Year:** 2022	**Session: 2022-2023**
Subject: Computer Application COMCA 101				

1	**Course Code**		
2	**Course Title** (Name of Paper)	Fundamentals of Computers & Office Automation	
3	**Course Type**	Core Course	
4	**Pre-requisite (if any)**	**To** study this course, a student must have had the subject ..... in class 12th.	
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: 1. Understand the meaning and basic components of a computer system. 2. Discuss the advantages, limitations and applications of computers. 3. Identify the various inputs and output units and explain their purposes. 4. Essential for a modern office for day to day office management. 5. Learn about text formatting and editing using MS Word. 6. Learn How to do effective presentation using MS Power Point	
6	**Credit Value**	Theory: 30	Practical : 20
7	**Total Marks**	Max. Marks: 50	Min. Passing Marks: 17

Part B: Content of the Course Total Period : 30		
Unit		No. of Lectures
I	**Introduction to Computers** **Computer system:** characteristics and capabilities. Computer Hardware and Software: Block Diagram of a Computer, Different Data Processing: Data, Data Processing System, Storing Data, Processing Data. Types of Computers: Analogue, Digital, Hybrid, General and Special Purpose Computers. Generation of Computers. Computer Systems: Micros, Minis & Main-frames. Limitations of Micro Computer. **Number systems:** Decimal Number system, Binary number system, Octal & Hexadecimal number system, **Codes:** ASCII, EBCDI Codes, Gray code & BCD. **Input Devices:** Categorizing Input Hardware, Keyboard, Direct Entry – Card Readers, Scanning Devices – O.M.R., Character Readers, Thumb Scanner, MICR, Smart Cards, Voice Input Devices, Pointing Devices – Mouse, Light Pen, Touch Screen. **Computer Output:** Output Fundamentals, Hardcopy Output Devices, Impact Printers, Non-Impact Printers, Plotters, Computer output, Softcopy Output Devices, Cathode Ray Tube, Flat Screen Technologies, Projectors, Speakers.	15
II	**Using Office with MS-Word** Introduction to word processing software and it's features, Creating new document, Saving documents, Opening and printing documents. **Home Tab:** Setting fonts, Paragraph settings, Various styles (Normal, No spacing, Heading1, Heading2, Title, Strong), Find & replace, Format painter, Copy paste and paste special. **Insert Tab:** Pages, Tables, pictures, clipart, shapes, header & footer, word art, equation and symbols. **Page Layout Tab:** Page setup, page Background, Paragraph (indent and spacing). **Mailing Tab:** Create envelops and Labels, Mail merge. **Review Tab:** Spelling and grammar check, New comment, Protect document, **Working with MS-PowerPoint** Introducing power point, Use of power point presentation, Creating new slides saving, Opening and printing. **Home Tab:** New slide, Layout, Reset, Delete, Setting text direction, Align text, Convert to smart art, Drawing options. **Insert Tab:** Table, picture, clipart, photo album, smart art, shapes and chart, movie and sound, hyperlink and action, text box , word art, object. **Design Tab:** Page setup options, slide orientation, applying various themes, selecting background style and formatting it. **Animations Tab:** Custom animation for entrance, exit and emphasis, applying slide transition, setting transition speed and sound, animation on rehears timing. **Slide show Tab:** Start slid show options, setup options.	15

Part C: **Learning** Resources
Text Books. Reference Books, Other Resources

Suggested Readings:

Reference Books:

1. Computer Fundamentals, P. K. Sinha, BPB Publications, Sixth Edition.
2. Introduction to Information Technology, V. Rajaraman, PHI, Second Edition.
3. Fundamental of Information Technology, ChetanShrivastava, Kalyani Publishers.
4. Computers Today, Suresh K Basandra, Galgotia Publications.
5. Microsoft Office 2007 fundamentals, L Story, D Walls.
6. MS Office, S. S. Shrivastava, Firewall Media.
7. Office 2000 made easy, Alan Neibauer, Tata McGraw Hill

Suggested Digital Platforms Web.links:

1. https://onlinecourses.swayam2.ac.in/cec22_cs14/preview
2. https://library.ku.ac.ke/wp-content/downloads/2011/08/Bookboon/Office-programs/microsoft-office-word.pdf

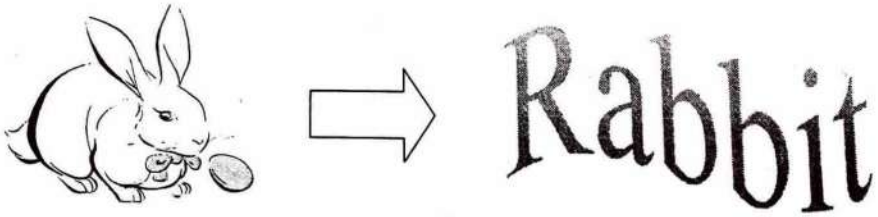
COMCAP101

	BCom Semester- I Computer Application Practical Question List
1	**Open a document. Type the following text and perform the tasks as instructed below:** **Working with Word Processor** As already mentioned, a WORD PROCESSOR is a package that processes textual matter and creates organized and flawless documents. In addition to it a word processor not only remote all the limitations of typewriter but also offers various useful features that cannot be even dreamt of with typewriter. Also if same textual matter is to be reproduced with minor changes, retyping the only option in typewriters .The word processing (and word processor) originated way back in 1964 when special typewriters. Magnetic Tape Electric typewriters (MIST) were launched by IBM

	(International Business Machines). ➢ Insert the following text after the first paragraph: Also if same textual matter is to be reproduced with minor changes, retyping the only option in typewriters. ➢ Save the document as Word.docx? ➢ Move the second paragraph to the end of the document using cut, paste operation? ➢ Undo the above action?
2	**Open a document. Type the following text and perform the tasks as instructed below:** **Working with Word Processor** As already mentioned, a WORD PROCESSOR is a package that processes textual matter and creates organized and flawless documents. In addition to it a word processor not only remote all the limitations of typewriter but also offers various useful features that cannot be even dreamt of with typewriter. The word processing (and word processor) originated way back in 1964 when special typewriters. Magnetic Tape Selectric typewriters (MIST) were launched by IBM (International Business Machines). ➢ Replace the "type writers" with " word processor" ➢ Format the above written paragraphs and give the options as follows: • Alignment justified • Spacing: before 6 pt. after:6 pt. • Line spacing 1.5 lines. ➢ Align the heading to center and make it bold, underlined and italicized.
3	**ype text and format the text as show below:** $4H_3PO_3 = 3H_3PO_4 + PH_3$

	$PCL_3+CL_2=PCL_5$ $(x+y)^2=x^2+y^2+2xy$
4	**Create watermark as Microsoft in MS-Word document.**
5	**Create the following:**
6	Admission 2022-2023

Course	OC	BC	MBC	SC/ST	TOTAL
Computer science	9	18	5	5	37
Commerce	14	25	6	5	50
Mathematics	12	20	4	4	40

7	**Insert the following in MS-Word.** 
8	**Create the following in MS-Word:** **Types of computer** • Super Computer • Mainframe Computer • Mini Computer • Micro Computer • Digital Computer • Analogue Computer • Hybrid Computer

9	Create a PowerPoint presentation to demonstrate – one slide for comparison ,one slide displaying a chart with the table.
10	Create a PowerPoint presentation to demonstrate import sound and video clips.
11	Create a PowerPoint presentation to demonstrate custom animation and hyperlink.
12	Create a PowerPoint presentation to demonstrate theme and transition.

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Part A: Introduction				
Programme : Certificate Course	Class: B.Com	Semester- II	**Year:** 2022	**Session: 2022-2023**
Subject: Computer Application				

1	**Course Code**	COMCA 201
2	**Course Title** (Name of Paper)	Computer Software, Office Automation and Tally
3	**Course Type**	
4	**Pre-requisite (if any)**	**To** study this course, a student must have had the subject ..... in class 12th.
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: 1. Gain knowledge of Systems software and Application software. 2. Understand the primary functions of an Operating System. 3. Use of Utility programs. 4. Understand how to calculation will be done with MS Excel. 5. Learn how to apply various mathematical functions and formatting options in MS Excel.
6	**Credit Value**	Theory: 30 Practical : 20
7	**Total Marks**	Max. Marks: 50 Min. Passing Marks: 17

Part B: Content of the Course		
Total Period : 30		
Unit		No. of Lectures
I	**Computer Software & Languages** **System Software:** System software Vs. Application Software, Types of System Software, Introduction and Operating System, Uses of OS, Functions of OS ,Types of Operating Systems. Utility Programs. **Application Software:** Microcomputer Software, Interacting with the System, Trends in PC software, Types of Application Software, Difference between Program and Packages. **Computer Languages:** Definition, Generations of computer languages, Types of Languages, Language Processors: Assembler, Interpreter, Compiler, Linker and Loader.	15
II	**Working with MS-Excel** Introducing Excel, Use of excel sheet, Creating new sheet, Saving, Opening, and printing workbook. **Home Tab:** Font, Alignment, Number, Styles and cells and editing, Conditional Formatting. **Insert Tab:** Table, Charts (column chart, Pie chart, Bar chart, Line chart) and Texts (header & footer, word art, signature line). **Page Layout Tab :**Page setup options, Scale to fit(width, height, scale). **Formulas Tab :** Auto sum (sum, average, min, max), logical(IF, and ,or ,not ,true, false), Math &trig (s in, cos, tan, ceiling, floor, fact, mod, log), watch window. **Data Tab :** Get external data from MS Access, Sort and filter options , Data validation, Group and ungroup. **Review Tab:** Protect sheet, Protect workbook, Share workbook. **View Tab:** Page breaks, Page layout, Freezing panes, Split and hide.	15

Part C: **Learning** Resources
Text Books. Reference Books, Other Resources
Suggested Readings: Reference Books: 8. Computer Fundamentals, P. K. Sinha, BPB Publications, Sixth Edition. 9. Introduction to Information Technology, V. Rajaraman, PHI, Second Edition. 10. Fundamental of Information Technology, ChetanShrivastava, Kalyani Publishers. 11. Computers Today, Suresh K Basandra, Galgotia Publications. 12. Microsoft Office 2007 fundamentals, L Story, D Walls. 13. MS Office, S. S. Shrivastava, Firewall Media. 14. Office 2000 made easy, Alan Neibauer, Tata McGraw Hill Suggested Digital Platforms Web.links: 1. e PG Pathshala

COMCAP201

B. Com Semester –II Practical Questions list

MS Excel

1 **Create The Following Worksheet And Save The Worksheet As student.xlsx**

Student Marks Detail

S. No	Name	Marks			Total Marks		Percentage
		Hindi	English	Maths	Obtained	Out of	
1	Ram	55	67	56		300	
2	Shyam	67	81	77		300	
3	Kavita	80	56	70		300	
4	Lalit	66	66	67		300	
5	Rohan	58	68	69		300	
6	Sarita	70	87	72		300	

I. Calculate total obtained Marks of each students

II. Calculate Percentage of each students

2 **Create The Following Worksheet And Save The Worksheet As Wages.xlsx**

PACE COMPUTER(ACT CEDT), GOVT. OF INDIA

PAYROLL FOR EMPLOYEE(TEMPRORARY)Calculate the gross value .

Today date pay rate 300

worker name	Hired on	Days worked	gross wages
Yashwant	03-Nov-2021		
Krishna	04-Dec-2021		
Shiva	05-Jan-2022		
Dinanath	06-Nov-2021		

I. Calculate Days worked of each worker

II. Calculate gross wagesof each worker

3 **Create The Following Worksheet And Save The Worksheet As salary.xlsx**

Employee Salary Detail

name	basic monthly salary(rs.)	HRA(% of basic)	HRA Amount	DA(rs.)	total salary(1997)	BONUS(rs.)	total salary(1998)	% increase
shirom	5000	10		450		1200		
somya	9000	15		800		200		
tanmay	7000	12		900		1800		

I. Calculate the total salary as sum of basic salary, HRA,DA for each employee for 1997.
II. Calculated tatal salary for year 1998 as sum of salary of 1997 and bonus.
III. Calculate % increase in salary from 1997 to 1998.

4 **Create A Worksheet As Follows**

Payroll for employee (permanent)

Emcode	name	Doj	Salary	Year Worked	Bonus	NET SALARY
E001	MR.BHOI	3-MAR-19	5000			
E002	KRISHNA	4-MAR-20	4000			
E003	DINANATH	3-MAR-18	4800			
E004	YASHWANT	6-MAR-19	7500			

1. CalculateYear Worked of each employee.
2. Allow bonus 8000 to employee having service > 2 year other vice allow bonus 3000.
3. Find net salary as sum of bonus and salary.

5 **Create a worksheet as follows**

Roll No	Name	English	Maths	Total	Average	Division
101	Kushagras	91	84			
102	Ajay	45	40			
103	Vijay	70	69			
104	Ramesh	50	45			
105	Vinita	90	62			

(1) Find Total of two subject for each student.

(2) Find average of two subject for each student.
(3) Find division of student as first, second ,thirds , assume percentage of your own and maximum marl in each student as 100.

6 **Create Macro In Excel To Make Selected Cell ,Italic Outside Border And Center Across Select.**

7 **Create Bar chart with given data.**

	2001	2002	2003
Tea	19	23	25
Coffee	22	24	22
Sugar	45	40	45

(1) Provide heading production detail
(2) Provide y axis title lacks metric tone
(3) Provide x axis title year.

8 **Create Column chart with given data.**

Name	Marks		
	Hindi	English	Maths
Ram	55	67	56
Shyam	67	81	77
Sita	80	56	70
Sohan	66	66	67
Rohan	58	68	69
Sarita	70	87	72

9 **Create the pia chart with given data.**

Expenses	Amount
Rent	7000
Electricity Bill	300
Milk	400
Grocery	3000
Transport	600
School Fee	2000
Savings	9000

10 **Demostrate the use of following function in Excel**

i) power

ii) len

iii) round

iv) max

v) today

vi) fact

vii) upper

11 **Create a table with column heading as shown as below and using form perform data entry of records.**

Zone	Department	Employee	salary
West	Marketing	Krishna	10500
East	Sales	Yashwant	20000
South	Marketing	Suresh	5500
North	Marketing	Dinanath	25000
South	Sales	Shiva	8000
North	Sales	Khovendra	8000
South	Marketing	Chandra	7500
West	Sales	Avinash	4500

(1) User filter command to show records having Zone : West

(2) Use filter command to show records having Zone: west and salary less than 5000.

(3) Use filter command to show records having salary greater than 10000.

12 **create the following table do as instructed-**

Zone	Department	Employee	salary
West	Marketing	Krishna	10500
East	Sales	Yashwant	20000
South	Marketing	Suresh	5500
North	Marketing	Dinanath	25000
South	Sales	Shiva	8000
North	Sales	Khovendra	8000
South	Marketing	Chandra	7500
West	Sales	Avinash	4500

(1) Sort the data according to zone in ascending order.

(2) Sort the data according to salary in decreasing order.

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सत्र- 2022-23

Part A: Introduction				
Programme : Certificate Course	Class: BA 1st year	Semester- 1st	**Year:** 2022	**Session: 2022-23**

Subject: हिन्दी साहित्य

1	**Course Code**	**HLT101**
2	**Course Title** (Name of Paper)	प्रचीन एवं मध्यकालीन काव्य
3	**Course Type**	**CORE COURSE**
4	**Pre-requisite (if any)**	**To study this course, a student must have had the subject** ..... in class 12th
5	**Course Learning Outcomes** (CLO)	1. हिन्दी साहित्य के इतिहास का ज्ञान 2. आदि काल से उत्तर मध्यकाल की कविताओं का परिचय 3. तात्कालीन कवि दृष्टि एवं रचना कौशल का ज्ञान 4. प्रतिनिधि कवियों की कृतियों एवं उनके वैशिष्टय का ज्ञान
6	**Credit Value**	**5+1**
7	**Total Marks**	100

Part B: Content of the Course

Total Period : 60

Unit		No. of Lectures
I	हिन्दी साहित्य **का इतिहास** : संक्षिप्त परिचय, आदिकाल, भक्तिकाल एवं रीतिकाल की प्रमुख विशेषताएँ विद्यापति (विद्यापति – डॉ. शिवप्रसाद सिंह) पद संख्या – 3,4,9,10,42	
II	कबीर (कबीर – कांति कुमार जैन) प्रारंभिक साखियाँ – गुरुदेव को अंग, सुमिरन को अंग जायसी – (संक्षिप्त पद्मावत – श्याम सुन्दर दास) नागमति वियोग वर्णन (दोहा चौपाई क्र. – 1 से 10 तक)	
III	सूर (भ्रमर गीत सार – सं. आचार्य रामचन्द्र शुक्ल) प्रारंभिक पद सं. 1 से 11 तक तुलसी – रामचारित मानस के सुंदर कांड से प्रारंभिक 15 दोहे चौपाई छंद सहित	

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IV	घनानंद (धनानंद – सं. विश्वनाथ प्र. मिश्र) प्रारंभिक छद – 1 से 10 तक बिहारी (बिहारी रत्नाकर – श्री जगन्नाथ दास रत्नाकर). प्रारंभिक दोहा संख्या – 1,32,35,38,41,51,60,121 एवं सोरठा क्र. 191,192	
V	प्रतिनिधि कवि परिचय (द्रुत पाठ) चंद बरदाई, रहीम, रसखान, मीरा	
Keywords/Tags-		

Part C: **Learning** Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

पाठ्य पुस्तक

1. संपादक, आडिल, सत्यभामा, प्राचीन हिन्दी काव्य, छत्तीसगढ़ राज्य हिन्दी ग्रंथ अकादमी रायपुर
2. दीक्षित, आनंद प्रकाश, विद्यापति पदवली, साहित्य मंदिर प्रकाशन ग्वालियर
3. संपादक, दास, श्यामसुन्दर, कबीर ग्रंथावली, नागरी प्रचारणी सभा वाराणसी
4. शुक्ल आचार्य रामचन्द्र, जयसी ग्रंथावली नागरी प्रचारणी सभा वाराणसी
5. शुक्ल आचार्य रामचन्द्र, भ्रमरगीत सार, लोक भारती प्रकाशन इलाहाबाद
6. गोस्वामी तुलसीदास, श्रीरामचरित मानस, गीता प्रेस गोरखपुर
7. रत्नाकर, जगन्नाथ दास बिहारी रत्नाकर, रत्नाकर पब्लिकेशन वाराणसी

संदर्भ

1. डॉ. नगेन्द्र, हिन्दी साहित्य का इतिहास, नेशनल पब्लिसिंग हाउस दिल्ली
2. शुक्ल, रामचन्द्र हिन्दी साहित्य का इतिहास, लोक भारती प्रकाशन इलाहाबाद
3. सिंह, नामवर, आधुनिक साहित्य की प्रवृत्तियाँ, राजकमल प्रकाशन दिल्ली
4. सिंह डॉ. शिव प्रसाद विद्यापति हिन्दी प्रचारक पुस्तकालय वाराणसी

अनुशिंसित डिजिटल प्लेटफार्म वेब लिंक

1. www.wikipediya.org
2. www.egyankosh.ac.in
3. www.youtube.com
4. https://epgp.inflibnet.ac.in
5. hindiwi.org
6. kavitakosh.org
7. https://swayam.gov.in

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Govt.J.Yoganandam Chhattisgarh College,
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सत्र - 2022-23

Part A: Introduction					
Programme : Certificate Course		Class: BA 1st year	Semester- 2nd	**Year:** 2022	**Session: 2022-23**
Subject: हिन्दी साहित्य					
1	**Course Code**	**HLT201**			
2	**Course Title** (Name of Paper)	कथा साहित्य			
3	**Course Type**	**CORE COURSE**			
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject ..... in class 12th			
5	**Course Learning Outcomes** (CLO)	1. उपन्यास 'गोदान' एवं 'भूलनकांदा' के माध्यम से भारतीय कृषि एवं न्याय जगत की समस्यायों की पड़ताल 2. उदभव काल से लेकर आज पर्यंत लिखी गई प्रतिनिधि कहानियों के माध्यम से विविध आयामी सूझ का विकास 3. प्रतिनिधि रचनाकारों का परिचय			
6	**Credit Value**	**5+1**			
7	**Total Marks**	100			

Part B: Content of the Course		
Total Period : 60		
Unit		No. of Lectures
I	उपन्यास गोदान – प्रेमचन्द	
II	उपन्यास भूलन कांदा – संजीव बख्शी	
III	कहानी 1. कफन – प्रेमचन्द 2. आकाशदीप – जयशंकर प्रसाद 3. उसने कहा था – चन्द्रधर शर्मा गुलेरी 4. मलबे का मालिक – मोहन राकेश	

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IV	कहानी 1. परिन्दे – निर्मल वर्मा 2. वापसी – उषा प्रियंवदा 3. बादलों के घेरे – कृष्णा सोबती 4. राजीनामा – विजयदान देथा	
V	प्रतिनिधि **रचनाकार** परिचय (द्रुत पाठ) उपेन्द्रनाथ अश्क, बालशौरि रेड्डी, शिवानी, राजेन्द्र यादव	
Keywords/Tags-		

Part C: **Learning** Resources
Text Books. Reference Books, Other Resources
Suggested Readings: **पाठ्य पुस्तक** 1. प्रेमचन्द, गोदान 2. बख्शी, संजीव, भूलन कांदा 3. संपादक आडिल, सत्यभामा, हिन्दी कथा साहित्य, अजय प्रकाशन रायपुर **संदर्भ** 1. राय, गोपाल, हिन्दी कहानी का इतिहास, राजकमल प्रकाशन दिल्ली 2. राय, गोपाल, हिन्दी उपन्यास का इतिहास, राजकमल प्रकाशन दिल्ली 3. मधुरेश, हिन्दी कहानी का विकास, लोक भारती प्रकाशन दिल्ली **अनुशिंसित डिजिटल प्लेटफार्म वेब लिंक** 1. www.wikipediya.org 2. www.egyankosh.ac.in 3. www.youtube.com 4. https://epgp.inflibnet.ac.in 5. https://swayam.gov.in

Govt.J.Yoganandam Chhattisgarh College,

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ENGLISH LITERATURE

A: Introduction				
Programme: Certificate Course Part	**Class:** BA I	**Semester-** I	**Year:** 2022	**Session:** 2022-23

Subject: English

1	**Course Code**	ELT 101	
2	**Course Title** (Name of Paper)	British Literature from 1340 – 1750	
3	**Course Type**	Core Course	
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject English language in class 12th.	
5	**Course Learning Outcomes (CLO)**	The course will enable the students to: 1. Understand the development of British literature from the beginning to the Age of Pope 2. Aware of different trends and movements of the period 3. Appreciate and analyze the select literary poems, plays and prose pieces in larger socio-cultural context. 4. Develop presentation skills and face viva voce.	
6	**Credit Value**	Theory: 5	Project: 01
7	**Total Marks**	Max. Marks:100 Theory: 80 Internal Assessment: 10 Assignment: 10	Min. Passing Marks:35 Theory 27 Internal Assessment: -- Assignment: 03

Part B: Content of the Course

Total Period : 60

Self Study

1. Read about the author- his life and works.
2. Preview the text to be taught.
3. Scanning-A quick reading of the text to find new words, idea, phrases and then try to know their meaning from the context.
4. Skimming- Do surface level reading and pay attention to the visuals, subheading and format.

Unit		No. of Lectures: 75
I	**Introduction to History of English Literature. Social and historical background and literary trends and movements of the following periods of History of English Literature:** 1. Age of Chaucer 2. Age of Shakespeare	12
	Introduction to History of English Literature. Social and historical background and literary trends and movements	12

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1.1.1, 1.1.2, 1.2.1

II	of the following periods of History of English Literature: 1. Age of Milton 2. Age of Dryden 3. Age of Pope	
III	Poetry (a) Shakespeare - Sonnet No. 154, The Little Love God (b) Milton - How Soon Hath Time (c) John Donne - Sweetest Love I Don't Go	12
I V	Poetry (a) John Dryden - Portrait of Shadwell (b) Alexander Pope- An Essay on Criticism	12
V	Prose and Drama (a) Bacon - Of Studies (b) Shakespeare - *The Merchant of Venice*	27
Project and Seminar	Project Work based on the syllabus followed by its PowerPoint Presentation and Viva-Voce.	

Keywords/Tags- Shakespeare, Renaissance, Reformation, Metaphysical Poetry, Sonnet, Bacon, Satire, Neo-classicism, Restoration

Part C: Learning Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Text Books:

1. The works prescribed under Prose and Poetry section in B. A. Part-I are included in the anthologies prescribed in the previous syllabus for B. A. Part-I
2. *The Merchant of Venice*. William Shakespeare, Verity Edition

Reference Books:

1. S C Sengupta. *Shakespearean Comedy*, Oxford University Press
2. C.M. Bowra. *From Virgil to Milton*
3. Edward Dowden. *Shakespeare: A Critical Study of his Mind and Art*, Cambridge University Press
4. Edward Albert. *A History of English Literature.*
5. Ifor Evans. *A Short History of English Literature.*
6. Hudson. *An Outline History of English Literature*
7. Hugh Walker. *English Essays and Essayists*
8. Sukanta Chaudhuri. Ed. *Bacon's Essays: A Selection.* New Delhi: OUP, 1977.
9. Herbert Read. *English Prose Style.* 1928. New York: Pantheon Books, 1952.

Suggested Digital Platforms Web links:

1. Epgpathshala

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1.1.1, 1.1.2, 1.2.1

2. The British Library
3. BritLitBlogs
4. Eighteenth-Century Resources - Literature
5. The Labyrinth-Resources for Medieval Studies

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Directives for the students, teachers and the paper setters:

1. Candidates are expected to study the entire prescribed syllabus thoroughly.

2. Each unit is compulsory.

3.The question paper will be divided into three sections 'A','B' and 'C'.

Section 'A' : It will consist of ten objective type questions from Historical and literary topics mentioned in the note with no internal choice. It will be of one mark each. (2x10=20)

Section 'B' : It will consist of five short answer questions from each unit with no internal choice. It will be of four marks each (5x 4 = 20).

Section 'C': There will be eight long answer type questions (250 words) of 08 marks each from every unit with internal choice. (5x8=40). A question on each author/text must be asked.

Syllabus Approved by the Board of Studies English on 25.07.2022

Dr Kirti Tiwari (Chair Person) 25/7/2022

Dr G. A. Ghanshyam (Subject Expert)

Dr Tapas Mukherjee (Subject Expert)

Dr Pratibha Mukherjee Sahukar (Subject Expert)

Ms Vintee (Student Representative)

Members:

1. Prof. A. Tiwari

2. Dr A. Juneja 25.7.22

3. Dr Shashank Gupta

1.1.1, 1.1.2, 1.2.1

Govt.J.Yoganandam Chhattisgarh College,
Raipur (C.G.)

Part A:Introduction					
Programme: CertificateCourse		**Class:** BA I	**Semester-** II	**Year:** 2023	**Session:** 2022-23
Subject: English					
1	**Course Code**	ELT 201			
2	**Course Title** (Name of Paper)	British Literature from 1750 – 1890			
3	**Course Type**	DSC/Core Course			
4	**Pre-requisite (if any)**	To study this course, a student must have passed Semester-I			
5	**CourseLearning Outcomes**(CLO)	The course will enable the students to: 1. Understand the development of British literature from 1750 – 1890 2. Aware the students about different trends and movements of the period 3. Develop fundamental skills required for close reading and critical thinking of the texts and concepts. 4. To develop presentation skills and face viva voce.			
6	**Credit Value**	Theory: 5	Project 01		
7	**Total Marks**	Max. Marks:75 Theory 60 Project 15	Min. Passing Marks:25 Theory 20 Project 05		

Part B: Content of the Course
Total Period : 60
Self Study
1. Read about the author- his life and work. 2. Preview the text to be taught. 3. Scanning-A quick reading of the text to find new words, idea, phrases and then try to know their meaning from the context 4. Skimming- Do surface level reading and pay attention to the visuals, subheadings and format

1.1.1, 1.1.2, 1.2.1

Unit		No. of Lectures
I	**Introduction to History of English Literature. Social and historical background and literary trends and movements of the following periods of History of English Literature:** 1. Transition Period 2. Romantic Age 3. Victorian Age	12
II	**Poetry -** (a) Blake - Tyger, Tyger Burning Bright (b) Wordsworth - Solitary Reaper (c) Shelley - Ode to a Skylark (d) Keats - Ode to Autumn	12
III	**Poetry and Prose** (a) Tennyson - Crossing the Bar (b) Browning – Prospice (c) Lamb - Dream Children: A Reveri	12
IV	**Fiction** (a) Swift – *The Battle of the Books*	12
V	**Fiction** (a) Charles Dickens - *David Copperfield*	12
Project and Seminar	**Project Work based on the syllabus followed by its PowerPoint Presentation and Viva-Voce.**	
Keywords/Tags- Transitional Age, Romantic Age, Victorian Age, Dramatic monologue, Humour and Pathos		

Part C: Learning Resources
Text Books. Reference Books, OtherResources

Suggested Readings:

Text Books:

1. The works prescribed under Prose and Poetry section in B. A. Part-I are included in the anthologies prescribed in the previous syllabus for B. A. Part-I
2. *The Battle of the Books* by Jonathan Swift, published by Lector House
3. Charles Dickens - *David Copperfield*, published by Bradbury and Evans

Reference Books:

1. C.M.Bowra. *The Romantic Imagination.*
2. Walter Jackson Bate. *From Classic to Romantic.*
3. R.A. Scott James. *The Making of Literature.*
4. Edward Albert. *A History of English Literature.*
5. Basil Welley. *The Eighteenth Century Background.*
6. James F Loucks and Andrew M. Stauffer. *Robert Browning's Poetry*. W. W. Norton, 2007.
7. Charles Harold. *Robert Browning: Tradition*, 2012. Online available free.
8. Aidan Day. *Romanticism. New Critical Idiom Series*. London: Routledge, 2003.
9. Ifor Evans. *A Short History of English Literature.*
10. Hudson. *An Outline History of English Literature.*
11. Hugh Walker. *English Essays and Essayists*
12. Herbert Read. *English Prose Style*. 1928. New York: Pantheon Books, 1952

Suggested Digital Platforms Web links:

1. Epgpathshala
2. The British Library
3. BritLitBlogs
4. English Literature Essays Page
5. Victorian Database Online
6. Victorian Women Writers Project

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Part A: Introduction

Programme : Certificate Course B.A.	Class: B.A.	Semester- First	Year: 2022	Session: 2022-23

Subject: ANCIENT INDIAN HISTORY CULTURE & ARCHAEOLOGY

1	**Course Code**	Theory -AIH101	Assignment – AIHT101
2	**Course Title** (Name of Paper)	भारतीय पुरातत्व के मूल तत्व Element of Indian archaeology	
3	**Course Type**	Core Course	
4	**Pre-requisite (if any)**	To study this course, a student must have had Passed in class 12th.	
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: 1. छात्रों में पुरातत्व की समझ विकसित होगी 2. छात्र उत्खन्न से प्राप्त पुरासामग्रियों के बारे में समझ सकेगें। 3. पृथ्वी पर मानव प्रजाति के उद्भव एवं मानवीय संस्कृति के विषय में जानकारी प्राप्त होगी 1. Students will develop an understanding of archeology 2. Students will be able to understand about the archeological Martial antiquities obtained from the excavation. 3. Students will get information about the rise of human being	
6	**Credit Value – 06**	Theory: 5	Assignment (Based on Theory Paper) : 1
7	**Marks (Theory)** Assignment Internal Test	Max. Marks: 80 Max. Marks: 10 Max. Marks: 10 Total Marks - 100	**Min. Passing Marks (Theory) - 27** **Min. Passing Marks Assignment – 03** **Min. Passing Marks -** **Min. Passing Marks - 35**

Part B: Content of the Course

Total Period : 60

Self Study :

1. **What is Archeology**
2. **Ancient sites**
3. **Orign of earth**

Unit		No. of Lectures
I	1 पुरातत्व विज्ञान की परिभाषा, विस्तार क्षेत्र का अध्ययन, अन्य विषयों से संबंध। Definition, extent and relationship of Archaeology with other branches of Studies) 2 भारत में पुरातत्व का इतिहास, प्राचीन स्थलों की खोज। History of Indian Archaeology, Discovery of Ancient Sites.	12
II	1 उत्खनन की विधियॉं Methods of excavation 2 सर्वेक्षण का उद्देश्य एवं विधियॉं Survey Objectives and Methods 3 उत्खनित साम्रागी का अभिलेखीकरण Archive of excavated material	12

III	1 तिथि निर्धारण की विधियाँ , सापेक्ष एवं निरपेक्ष Methods of Determination, Relative and absolute 2 पुरातत्व के अधिनियम Acts of archeology	12
IV	1 मानव का उद्भव एवं विकास Origin and Development of Humans 2 पाषाणकाल (पुरा पाषाण, मध्य पाषाण काल, नव पाषाण काल) Paleolithic (Palaeolithic, Mesolithic, Neolithic) 3 भारत की ताम्राश्मक संस्कृति–कायथा, आहाड़, मालवा, जोर्वे India's chalcolithic culture - Kayatha, Ahar, Malwa, Jorwey.	12
V	1 हड़प्पा सभ्यता के विभिन्न पक्ष– नगर नियोजन, अर्थव्यवस्था, कला Different aspects of Harappan Civilization- town planning, economy, art 2 हड़प्पा सभ्यता के प्रमुख पुरास्थल– हड़प्पा, मोहनजोदड़ो, कालीबंगा,लोथल, धोलावीरा Major sites of Harappan civilization - Harappa, Mohenjodaro, Kalibanga, Lothal, Dholavira	12

Keywords/Tags-

पुरातत्व, उत्खनन, हड़प्पा, तिथि निर्धारण, पाषाणकाल

Archaeology, Excavation, Harappan, Dating, Paleolithic

Part C: **Learning** Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Text Books:

1. बी.एन.पुरी – पुरातत्व विज्ञान
2. जयनारायण पाण्डेय – पुरातत्व विमर्श
3. राकेश प्रकाश पाण्डेय – पुरातत्व विज्ञान
4. मदन मोहन सिंह – पुरातत्व की रूपरेखा
5. शिवस्वरूप सहाय – प्रागैतिहासिक भारत
6. डॉ. विदुला जैसवाल – भारतीय प्रागैतिहास की आदिम चरण की रूपरेखा

Reference

1. के.डी. बाजपेयी – मध्यप्रदेश का पुरातत्व
2. ए.के.घोष – इनसाइक्लोपिडिया इण्डियन आर्कियोलॉजी
3. Pandey,J.N. —Puratatva vimarsha
4. Sakalya, H.D. —Indian Archeaology Today.
5. Sakalya, H.D —Prehistory and Protohistory of India and Pakistan.1974
6. Sakalya, H.D —Prehistory of India 1977.
7. Subbarao,B. —The Prehistory of India.
8. Kenyan, K.M. —Field Archaeology

Suggested Digital Platforms Web.links:

1. epgp.inflibnet.ac.in
2. india.gov.in/official- website- archaeological- survey – india
3. cgculture .in/archaeology

26/7/22

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course B.A.	Class: B.A.	Semester- Second	**Year:** 2022	**Session: 2022-23**

Subject: ANCIENT INDIAN HISTORY CULTURE & ARCHAEOLOGY

1	**Course Code**	Theory -AIH201	Assignment – AIHT201
2	**Course Title** (Name of Paper)	प्राचीन भारत का राजनीतिक इतिहास (प्रारंभ से द्वितीय शताब्दी ई.पू.) Political history of ancient India (from begins to second century BC.)	
3	**Course Type**	Core Course	
4	**Pre-requisite (if any)**	**To** study this course, a student must have had Passed in class 12th.	
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: 1. इस प्रश्न पत्र के द्वारा छात्रों का भारतीय इतिहास के प्रति दृष्टिकोण व्यापाक होगा 2. इसके माध्यम से इतिहास जानने शोध से लेकर विभिन्न प्रमुख राजवंशो के विषय में जानकारी प्राप्त होगी। 1 Through this question paper, students' attitude towards Indian history will be broadened. 2 Through this, information students will get knowledge about different ruling dynasties of Ancient period.	
6	**Credit Value – 06**	Theory: 5	Assignment (Based on Theory Paper) : 1
7	**Marks (Theory)** Assignment Internal Test	**Max. Marks: 80** **Max. Marks: 10** **Max. Marks: 10**	**Min. Passing Marks (Theory) - 27** **Min. Passing Marks Assignment** – 03 **Min. Passing Marks -**
		Total Marks - 100	**Min. Passing Marks** - 35

Part B: Content of the Course

Total Period : 60

Self Study :

1. **Janpad**
2. **Sources**
3. **Allexander Unani Empire**
4. **Republic**

Unit		No. of Lectures
I	(1) प्राचीन भारतीय इतिहास के स्रोत Sources of Ancient Indian History (2) पुरातात्विक स्त्रोत – Archaeological Sources (3) साहित्यिक स्त्रोत – Literary Sources	12

II	1 वैदिक युग– ऋग्वैदिक युग, उत्तरवैदिक युग Vedic age– Rigvedic Pried , later Vedic age. 2 षोड़स महाजनदों का उदय Rise of Sixteen Mahajanpadas.	12
III	1 मगध साम्राज्य का उत्कर्ष, 2 सिकन्दर का आक्रमण एवं भारतीय प्रतिरोध 3 मौर्य राजवंश 1 The flourishing of Magadha Empire, 2 Alexander's Invasion and Indian Resistance. 3 Maurya Dynasty	12
IV	(1) हिन्द–यूनानी – Indo-Greeks (2) शुंग – Sunga (3) सातवाहन – Satvanhana (4) शक–क्षत्रप, पार्थियन – Shaka-kshatrap, Parthiyan	12
V	(1) संगम युग – Sangam Age (2) खारवेल – Kharvela (3) प्राचीन भारत के गणराज्य–मालव,यौधेय, अजुर्नायन तथा औदुम्बर Republic State Malav, Yavdhey, Arjunayan and Audumber	12

Keywords/Tags-
स्रोत, वैदिक, मगध, शुंग, खारवेल

Source, Vedic, Magadha, Shunga, Kharavela

Part C: **Learning** Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Text Books:

1. उदयनारायण राय – गुप्त राजवंश तथा उसका इतिहास (नया संस्करण) 1988
2. श्री राम गोयल – भारत का राजनैतिक इतिहास भागं 2 एवं 3
3. श्री राम गोयल – गुप्त साम्राज्य का इतिहास
4. अवध बिहारी लाल अवस्थी – राजपूत राजवंश
5. विशुद्धानंद पाठक – उत्तर भारत का राजनीतिक इतिहास
6. डॉ.के.ए.नीलकंठ शास्त्री– दक्षिण भारत का इतिहास

Reference

1. Ashvini Agrawal - Rise and Fall of the imperial Gupta
2. अवध बिहारी लाल अवस्थी – राजपूत राजवंश
3. डी.सी.गांगुली – परमार राजवंश
4. भगवती प्रसाद पांथरी –·मौखरी और पुष्यभूमि राजवंश
5. डॉ.बैजनाथ शर्मा – हर्षवर्धन

Suggested Digital Platforms Web.links:

1. epgp.inflibnet.ac.in
2. india.gov.in/official- website- archaeological- survey – india
3. cgculture .in/archaeology

Govt.J.Yoganandam Chhattisgarh College, Raipur
(C.G.)

Part A: Introduction				
Programme: Certificate Course	Class: B.A. I	Semester- First	**Year:** 2022	**Session: 2022 - 2023**

Subject: ECONOMICS

1	**Course Code**	Theory: ECO101 Tutorial (Assignment): ECOT101
2	**Course Title** (Name of Paper)	MICRO ECONOMICS / व्यष्टि अर्थशास्त्र
3	**Course Type**	Core Course
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject ..... in class 12'h.
5	**Course Learning Outcomes** (CLO)	The course will enable the students to understand: 1. Consumer demand analysis 2. Concepts of production and costs 3. Various market forms and determination of prices 4. Factor price determination 5. Introduction to Welfare Economics 1. उपभोक्ता की मांग का विश्लेषण 2. लागत और उत्पादन की अवधारणाएं 3. विभिन्न बाज़ार प्रकार एवं कीमत निर्धारण 4. साधन कीमत निर्धारण 5. कल्याणकारी अर्थशास्त्र का परिचय
6	**Credit Value - 06**	Theory: 05 Internal Assessment &Assignment: 01
7	**Total Marks: 100** **Min. Passing Marks:** 40	Theory: 80 Marks — Min. Passing Marks: 27 Internal Assessment: 10 Marks — Min. Passing Marks: -- Assignment: 10 Marks (Based on Syllabus) — Min. Passing Marks: 03

Part B: Content of the Course

Total Period: 60

Self Study

Basic concepts of Economics – Desire, demand, Consumer, Price, Exchange of goods in market, Producer, factors of production, Markets.

अर्थशास्त्र की आधारभूत धारणाएं - इच्छा, मांग, उपभोक्ता, कीमत, बाज़ार में वस्तुओं का विनिमय, उत्पादनकर्ता, उत्पादन के साधन, बाज़ार।

१.१.१, १.१.२, १.२.१

Unit		No. of Lectures
I	Introduction - Definitions Nature and scope of Economics, Methodology in Economics, Utility – Cardinal and Ordinal approaches, Indifference curve, Consumer's equilibrium, Giffin goods, Demand - Law of Demand, Elasticity of demand Consumer's surplus. परिचय – परिभाषा, अर्थशास्त्र की प्रकृति एवं क्षेत्र, आर्थिक विश्लेषण विधि, उपयोगिता – गणनावाचक एवं क्रमवाचक दृष्टिकोण। तटस्थता वक्र। उपभोक्ता का साम्य, गिफिन पदार्थ। मॉग – मॉग का नियम, मॉग की लोच। उपभोक्ता की बचत।	12
II	Theory of production and cost, Production function, Iso-quant, Factor substitution, Law of variable proportions, Returns to scale, Economies of scale, Different concepts of cost and their interrelation, Equilibrium of the firm. उत्पादन एवं लागत का सिद्धान्त, उत्पादन फलन, समोत्पादक वक्र, साधन प्रतिस्थापन, परिवर्तनशील अनुपातों का नियम। पैमाने के प्रतिफल, पैमाने की बचतें। लागत की विभिन्न धारणायें एवं उनके अन्तः सम्बन्ध। फर्म का सन्तुलन।	12
III	Market structure-perfect and imperfect markets, Equilibrium of a firm-Perfect competition, Monopoly and price discrimination, Monopolistic competition, Duopoly, Oligopoly. बाजार संरचना – पूर्ण एवं अपूर्ण बाजार। फर्म का साम्य – पूर्ण प्रतियोगिता, एकाधिकार एवं कीमत विभेद, एकाधिकारात्मक प्रतियोगिता, द्वियाधिकार एवं अल्पाधिकार।	12
IV	Factor pricing-Marginal productivity theory of distribution, Theories of wage determination, wages and collective bargaining, wage differentials, Rent - Scarcity Rent, differential rent, Quasi rent, Modern Rent Theory, Interest Classical and Keynesian Theories, Modern Theory, Profits - Innovation, Risk bearing and uncertainty theories. साधन कीमत निर्धारण – वितरण का सीमान्त उत्पादकता सिद्धान्त। मजदूरी निर्धारण के सिद्धान्त, सामूहिक सौदेबाजी एवं मजदूरी, मजदूरी अन्तरण। लगान – दुर्लभता लगान, भेदात्मक लगान, आभास लगान, आधुनिक लगान सिद्धान्त। ब्याज – ब्याज का प्रतिष्ठित सिद्धान्त, ब्याज का केन्स सिद्धान्त, आधुनिक सिद्धान्त। लाभ – नवप्रवर्तन, जोखिम एवं अनिश्चितता के सिद्धान्त।	12
V	Welfare economics: What welfare economics is about? Role of value judgments in welfare economics, Pigou's contribution in the field of welfare economics, Concept and condition of Pareto optimality, New welfare economics: Kaldor-Hicks welfare criterion, Bergson-Samuelson social welfare function. कल्याणकारी अर्थशास्त्र : कल्याणकारी अर्थशास्त्र किसके बारे में है? कल्याणकारी अर्थशास्त्र में मूल्यगत निर्णयों की भूमिका, कल्याणकारी अर्थशास्त्र के क्षेत्र में पीगू का योगदान, पेरेटो अनुकूलतम की अवधारणा तथा दशा, नवीन कल्याणकारी अर्थशास्त्र : कैल्डोर–हिक्स कल्याण मानदण्ड, बर्गसन – सैम्युलसन सामाजिक कल्याण फलन ।	12

Keywords/Tags - Demand Analysis, Production theory, Cost theory, Market Structure, Factor Pricing, Welfare economics

१.१.१, १.१.२, १.२.१

Part C: **Learning** Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Text Books:

1. डॉ. महेश्वरी, गुप्ता - व्यष्टि अर्थशास्त्र, कैलाश पुस्तक सदन, भोपाल
2. अनुपम अग्रवाल - व्यष्टि अर्थशास्त्र, SBPD पब्लिकेशन, आगरा
3. व्ही.सी. सिन्हा - व्यष्टि अर्थशास्त्र, साहित्य भवन पब्लिकेशन,आगरा
4. जीवन लाल भारद्वाज - अर्थशास्त्र, रामप्रसाद एंड सन्स, रायपुर

Reference Books:

1. Gauld, J. P. and Edward P. L. (1996) Microeconomics Theory, Richard, Irwin, Homewood
2. Lipsey, R. G. and K. A. Chrystal (1999), Principles of Economics (9th Edition). Oxford University Press. Oxford.
3. Koutsoyiannis, A. (1990), Modern Microeconomics, Macmillan.
4. Heathfield and Wibe (1987), An Introduction to cost and Production Functions. Macmillan. London.
5. Mansfield, E. (1997), Microeconomics (9th Edition), W.W. Norton and Company, New York.
6. Karl E. Case and Ray C. Fair, Principles of Economics, Pearson Education Inc., 8th Edition, 2007.
7. Joseph E. Stiglitz and Carl E. Walsh, Economics, W.W. Norton & Company, Inc., New York, International Student Edition, 4th Edition, 2007.

Suggested Digital Platforms Web.links:

1. https://www.swayamprabha.gov.in
2. https://vidyamitra.inflibnet.ac.in
3. https://epgp.inflibnet.ac.in
4. https://egyankosh.ac.in
5. https://cgschool.in

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Part A: Introduction				
Programme: Certificate Course	Class: B.A. I	Semester- Second	**Year:** 2023	**Session: 2022 - 2023**

Subject: ECONOMICS

1	**Course Code**	Theory: ECO201 Tutorial (Assignment): ECOT201
2	**Course Title** (Name of Paper)	INDIAN ECONOMY / भारतीय अर्थव्यवस्था
3	**Course Type**	Core Course
4	**Pre-requisite (if any)**	**To** study this course, a student must have had the subject ..... in class 12th.
5	**Course Learning Outcomes** (CLO)	The course will enable the students to understand: - 1. How Indian economy is changing toward a market-based economy. 2. The basic features of the Indian Economy. 3. Planning in India and economic reforms. 4. Role of Industry and policy decisions. 5. Importance of foreign sector and export promotion measures. 1. भारतीय अर्थव्यवस्था का बाज़ार -आधारित अर्थव्यवस्था में परिवर्तन। 2. भारतीय अर्थव्यवस्था की विशेषताएं। 3. भारत में नियोजन एवं आर्थिक सुधार। 4. उद्योगों की भूमिका एवं नीतिगत निर्णय। 5. विदेशी क्षेत्र का महत्त्व एवं निर्यात संवर्धन नीतियाँ
6	**Credit Value - 06**	Theory: 05 Internal Assessment & Assignment: 01
7	**Total Marks: 100** **Min. Passing Marks:** 40	Theory: 80 Marks — Min. Passing Marks: 27 Internal Assessment: 10 Marks — Min. Passing Marks: -- Assignment: 10 Marks (Based on Syllabus) — Min. Passing Marks: 03

Part B: Content of the Course

Total Period : 60

Self Study

Indian Economy-State of economy before independence, Basic Features, Natural Resources, Planning Commission, human development and inequalities, state of agriculture before independence, role of small and cottage industries, public and private sector, foreign trade before independence.

भारतीय अर्थव्यवस्था- स्वतंत्रता से पूर्व अर्थव्यवस्था की दशा, आधारभूत विशेषताएं, प्राकृतिक संसाधन, योजना आयोग, मानव विकास एवं असमानताएं, स्वतंत्रता से पूर्व कृषि की दशा, लघु एवं कुटीर उ|KSगों की भूमिका, सार्वजानिक और निजी क्षेत्र, स्वतंत्रता से पूर्व विदेशी व्यापार।

१०१.१, १०१.२, १०२.१

Unit		No. of Lectures
I	Pre and post independent Indian economy: A short introduction, State of economy at the time of independence, Planning in India through different Five-Year Plans, The NITI Aayog, Growth and development in pre-reform and post-reform period, New Economic Reforms: Liberalization, Privatization and Globalization. स्वतंत्रता के पूर्व एवं स्वतंत्रता के पश्चात् भारतीय अर्थव्यवस्थाः संक्षिप्त परिचय, स्वतंत्रता के समय अर्थव्यवस्था की स्थिति, भारत में विभिन्न पंच वर्षीय योजनाओं के माध्यम से नियोजन, नीति आयोग, सुधार पूर्व काल एवं सुधारोपरान्त काल में भारत की आर्थिक वृद्धि एवं विकास, नवीन आर्थिक सुधारः उदारीकरण, निजीकरण एवं भू–मण्डलीकरण।	12
II	Population and human development: Demographic trends and issues of education, health, malnutrition and migration. Growth and distribution: Trends and policies in poverty, inequality, unemployment and occupational distribution. जनसंख्या एवं मानव विकास : जनांकिकीय प्रवृत्ति तथा शिक्षा, स्वास्थ्य, कुपोषण तथा प्रवासन के मुद्दे, विकास एवं वितरण : निर्धनता, असमानता, बेरोजगारी एवं व्यवसायिक वितरण की प्रवत्ति एवं नीतियां।	12
III	Agriculture: Nature and importance, Trends in agriculture production and productivity, factors determining productivity, Land reforms, new agriculture strategies and green revolution, rural credit, Agricultural marketing, natural resources and infra-structure development: Performance, problems and policies, MUDRA yojana. कृषि : महत्व एवं प्रकृति, कृषि उत्पादन एवं उत्पादकता की प्रवृत्ति, उत्पादकता निर्धारक तत्व, भूमि सुधार, नवीन कृषि रणनीतियॉ एवं हरित कान्ति, ग्रामीण साख, कृषि विपणन, प्राकृतिक संसाधन एवं आधारभूत संरचना का विकास, प्रदर्शन, समस्याऍ एवं नीतियॉ। मुद्रा योजना।	12
IV	Industry: Growth and productivity, Industrial policy and reforms, Growth and problems of small and cottage scale industries, Role of public sector enterprises in India's industrialization. Trends and performance in services. उद्योग : वृद्धि एवं उत्पादकता, औद्योगिक नीति तथा सुधार, लघु एवं कुटीर उद्योगों का विकास एवं समस्याऍ, भारत के औद्योगीकरण में सार्वजनिक क्षेत्र के उपकमों की भूमिका, सेवा क्षेत्र में प्रवृत्ति एवं निष्पादन।	12
V	External Sector - Role of foreign trade, Trends in exports and imports, Composition and direction of India's foreign trade, Export promotion measures and the new trade policies, Recent macroeconomic scenario: National Income, investment, saving and inflation, fiscal policies and monetary policy. विदेशी क्षेत्र : विदेशी व्यापार की भूमिका, निर्यात एवं आयात की प्रवृत्ति, भारत के विदेशी व्यापार की दिशा एवं रचना, निर्यात संवर्द्धन प्रयास एवं नई व्यापारिक नीतियॉ, हाल का व्यापक आर्थिक परिदृश्य : राष्ट्रीय आय, निवेश, बचत एवं मुद्रास्फीति, राजकोषीय नीति, मौद्रिक नीति।	12

Keywords/Tags - Planning, Economic Reforms, Population and Human Development, Agriculture, Industry, External Sector

१.१.१, १.१.२, १.२.१

Part C: **Learning** Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Text Books:

1. डॉ. माहेश्वरी एवं गुप्ता - भारतीय अर्थव्यवस्था, कैलाश पुस्तक सदन
2. बी. एल. ओझा - भारतीय अर्थव्यवस्था, SBPD पब्लिकेशन्स, आगरा
3. व्ही. सी. सिन्हा - भारतीय अर्थव्यवस्था, साहित्य भवन पब्लिकेशन, आगरा
4. जीवन लाल भारद्वाज - अर्थशास्त्र, रामप्रसाद एंड सन्स, रायपुर

Reference Books:

1. दत्त रूद्र एवं के.पी.एम. सुन्दरम (2002): भारतीय अर्थव्यवस्था, एस. चाँद एंड कम्पनी, नई दिल्ली
2. मिश्रा एस. के. एवं व्ही. के. पूरी (2018): भारतीय अर्थव्यवस्था, हिमालय पब्लिकेशन हाउस, मुंबई
3. Mishra S.K. and V.K. Puri (2018): Indian Economy, Himalaya Publication House, Mumbai
4. Bawa, R.S. and Raikhy (Ed.) (1997): Structural change in Indian Economy, Guru Nanak Dev University Press. Amritsar
5. Ahulwalia, I.J. and I.M.E. Little (Eds.) 1999): India's Economic Reforms and Development (Essay honor of Manohar Singh), Oxford University Press New Delhi
6. Chakravarty, S. 1987: Development Planning: The Indian Experience, Oxford University Press, New Delhi

Suggested Digital Platforms Web.links:

1. https://www.swayamprabha.gov.in
2. https://vidyamitra.inflibnet.ac.in
3. https://epgp.inflibnet.ac.in
4. https://egyankosh.ac.in
5. https://cgschool.in

Govt.J.Yoganandam Chhattisgarh College,
Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	Class: BA/B.Sc.	Semester-I	**Year:** 2023	**Session: 2023-24**
Subject: Geography				

1	**Course Code**	**GEO101**
2	**Course Title** (Name of Paper)	**Geomorphology**
3	**Course Type**	Core Course
4	**Pre-requisite (if any)**	**To** study this course, a student must have had the subject in class 12th.
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: 1. Understand the function of earth system in real time and analyse how the natural and anthropogenic operation factors affect the development of landforms 2. Distinguish between the mechanisms that control these processes 3. Assess the roles of structure, stage and time in shaping the landforms, interpret geomorphological maps and apply the knowledge in geographical research.
6	**Credit Value**	Theory: 04
7	**Total Marks**	Max. Marks:60 / Min Marks- 20

Part B: Content of the Course

Total Period : 60

Unit		No. of Lecture
I	Geomorphology: Nature Scope, Key Concepts. Earth: Interior Structure, Rocks. भू–आकृति विज्ञान की प्रकृति, विषय क्षेत्र, आधारभूत, संकल्पनायें: पृथवी : आंतरिक संरचना, शैल	12
II	Earth Movements: Isostasy, Plate Techtronic's, Types of Folds and Faults Volcano, Earthquake पृथ्वी की गतियां : समस्थितिकी, प्लेट विवर्तनिकी, वलन एवं भ्रंश के प्रकार ,भूकंप एवं ज्वालामुखी	10
III	Geomorphology Processes : Weathering. Mass Wasting, Cycle of Erosion (Davis & Penck). भू–आकृतिक प्रकियाएं : अपक्षय, भूमि स्खलन, अपरदन चक्र (डेविस एवं पेंक)	10
IV	Evolution of Landforms (Erosional and Depositional) : Fluvial. Karst. Aeolian, Glacial and Coastal. भू–आकृतियों का विकास (अपरदनात्मक, निक्षेपात्मक) : जल (नदी), कार्स्ट, शुष्क, हिमनदीय एवं तटीय	16
V	Applied Geomorphology and Environment : Engineering, Hydrology, Mineral Exploration & Excavation, Urbanization: application & environmental impacts. व्यावहारिक भू–आकृति विज्ञान एवं पर्यावरण –इंजीनियरिंग, जल, विज्ञान, खनिजों की खोज एवं उत्खनन, नगरीकरण के क्षेत्र में : अनुप्रयोग एवं पर्यावर्णीय प्रभाव ।	12
Keywords/Tags-		

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	Class: BA/B.Sc.	Semester-I	**Year:** 2023	**Session: 2023-24**
Subject: Geography				

1	**Course Code**	**GEOP101**	
2	**Course Title** (Name of Paper)	**Cartographic Techniques (Practical)**	
3	**Course Type**	Core Course	
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject in class 12th.	
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: 1. Read and prepare Maps. 2. Use and Importance of Maps for regional development and decision making.	
6	**Credit Value**	Practical -02	
7	**Total Marks**	Maxi Marks-30	Min Marks-10

Part B: Content of the Course

Total Period :

Unit		No. of Lecture
I	Cartography – Nature and Scope, Scales, Concept and application: Geographical Construction of Plain, Diagonal Scales. मनचित्र कला–प्रकृति एवं विषय क्षेत्र, मापक–सिद्धांत एवं अनुप्रयोग, साधारण एवं विकर्ण मापक की रचना ।	06
II	Graph and Diagram: Bar Diagram, Population Pyramid. ग्राफ एवं आरेख :– दण्ड आरेख, जनसंख्या पिरामिड, ।	06
III	Map Projection: Classification, Properties and Uses, Merits and Demerit, Construction of Polar zenithal Gnomonic, stereographic, Orthographic, Simple Cylindrical Projection. मानचित्र प्रक्षेप : वर्गीकरण, विशेषताएं एवं उपयोग, गुण एवं दोष । रचना : ध्रुवीय खमध्य प्रक्षेपः केन्द्रक (नोमोनिक), त्रिविम, लम्बकोणीय, साधारण बेलनाकार प्रक्षेप ।	06
IV	Topographical Maps – Interpretation (Hilly/Plain Area). स्थलाकृतिक मानचित्र : व्याख्या (पर्वतीय/मैदानी क्षेत्र)	06
V	Interpretation of Weather Map. मौसम मानचित्र की व्याख्या ।	06
Keywords/Tags-		

Part C: Learning Resources

Text Books. Reference Books, Other Resources

Practical Record-

A Project File in Pencil Comprising on Scale Profile and Weather Maps

Reference Books:

1. Sharma J P : element of Practical Geography Rastogi Publication Meerath
2. Gupta KK & Tyagi : Working with Maps, survey of India, DST, New Delhi
3. Sing LR : Proyogic Bhoogol K L Multatua, Central Book Depot, Allahabad

सिंह L R : प्रायोगिक भूगोल, केन्द्रिय मुलतानुआ सेन्ट्रल बुक डिलाहाबाद

चन्द्राकर, पुरुषोत्तम, प्रायोगिक भूगोल, संकल्प पब्लिकेशन बिलासपुर

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	Class: BA/B.Sc.	Semester-II	**Year:** 2023	**Session: 2023-24**
Subject: Geography				

1	**Course Code**	GEO201
2	**Course Title** (Name of Paper)	**Geography of Human and Culture Landscape**
3	**Course Type**	Core Course
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject in class 12'h.
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: 1. Know the Changing of culture landscape. The Students will have ability to : 2. Understand patterns and processes of population growth land its implications. 3. Appreciate the nature and quality of human landscapes .
6	**Credit Value**	Theory: 04
7	**Total Marks**	Max. Marks: 60 Min Mark- 20

Part B: Content of the Course

Total Period : 60

Unit		No. of Lecture
I	Human Geography: Definition, Scope and Principles. Branches of Human Geography and Relation to other Sciences (subjects) मानव भूगोलः– परिभाषा, विषय क्षेत्र एवं सिद्धांत । मानव भूगोल की शाखायें । अन्य विषयों / विज्ञानों से मानव भूगोल का संबधं ।	12
II	Population : Population Growth and Distribution. Population Composition, Malthusian and Demographic Transition Theory जनसंख्या : जनसंख्या वृद्धि एवं वितरण, जनसंख्या का संघटन । माल्थस एवं जनांकिकीय संक्रमण सिद्धांत ।	12
III	Population Resource region Over, Under and Optimum Population, Migration of Population. जनसंख्या – संसाधन संबंध । जनाधिक्य, अल्प, एवं अनुकूलतम जनसंख्या । जनसंख्या का प्रवास ।	12
IV	Cultural Regions, Race Tribes -Eskimos, Bushman, Pigmy, Gond, Masai, and Naga. सांस्कृतिक प्रदेश, प्रजातिः जनजातियां – एस्किमों, बुशमैन, पिग्मी, गोण्ड, मसाई एवं नागा ।	12
V	Settlement: Types of Rural Settlements. Classification of Urban Settlement, Trends and Patterns of World Urbanization. अधिवास : ग्रामीण अधिवासों के प्रकार । नगरीय अधिवासों का वर्गीकरण, विश्व में नगरीकरण की प्रवृतियां एवं प्रतिरूप ।	12
Keywords/Tags-		

Part C: **Learning** Resources

Text Books. Reference Books. Other Resources

Suggested Readings:

Reference Books:

1. Chandna R.C., (2017) : Population Geography, Kalyani Publishers, New Delhi.
2. Hassan, M.I. (2005) : Population Geography, Rawat Publication, Jaipur.
3. Hussain, Majid., (2012) Manav Bhugol Rawat Publication, Jaipur
4. Kaushik, S.D. (2010) : Manav Bhugol, Rastogi Publication, Meerut.
5. Maurya, S.D. (2012) : Manav Bhugol Sharda Pustak Bhawan, Allahabd

Suggested Digital Platforms Web. Links:

1. e-PG Pathshala 2- Shodh Ganga 3- Gyankosh 4- NCERT Lecture

कौशिक, एस॰ डी॰ (2010) : मानव भूगोल, रस्तोगी पब्लिकेशन

मौर्य, एस॰ डी॰ : मानव भूगोल, शारदा पुस्तक भवन

इलाहाबाद

Govt.J.Yoganandam Chhattisgarh College,
Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	Class: BA/B.Sc.	Semester-II	Year: 2023	Session: 2023-24
Subject: Geography				

1	**Course Code**	**GEOP201**	
2	**Course Title** (Name of Paper)	**Statistical Methods in Geography (Practical)**	
3	**Course Type**	Core Course	
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject in class 12'h.	
5	**Course Learning Outcomes** (CLO)	After the completion of Course, the Students will have ability to- 1. Understand the Basis Data Collection and Processing for the meaningful Outcomes: 2. Comprehend the representation and interpretation of the result	
6	**Credit Value**	Practical -02	
7	**Total Marks**	Maxi Marks-30	Min Marks-10

Part B: Content of the Course

Total Period :

Unit		No. of Lecture
I	Use of Data in Geography Significance of Statistical Methods in Geography Sources of Data. भूगोल में आंकड़ों का उपयोग, भूगोल में सांख्यिकीय विधियों का महत्व । आंकड़ों के स्त्रोत	06
II	Tabulation- Central Tendencies: Mean Median Mode. सारणीयन – केन्द्रीय प्रवृतियों के मान – माध्य, मध्यिका, बहुलक	06
III	Standard Deviation, and Coefficient of Variation, प्रमाप विचलन एवं विचरण का गुणांक	06
IV	Sampling: Definition, Uses, Random Sampling. प्रतिदर्श : परिभाषा, उपयोग : यादृच्छिक प्रतिदर्श	06
V	Rank Size Correlation कोटि क्रम सहसंबंध ।	06
Keywords/Tags-		

शर्मा, जे.पी. प्रायोगिक भूगोल की रूपरेखा, रस्तोगी पब्लिकेशन मेरठ

चन्द्राकर, पुरूषोत्तम, प्रायोगिक भूगोल, संकल्प पब्लिकेशन

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	Class: **B. A. 1st Year**	**Semester-I**	**Year: 2023**	**Session: 2023-24**

Subject: HISTORY

1	**Course Code**	HIS-101
2	**Course Title** (Name of Paper)	**Indian History From Origin to 1206 AD.** **भारत का इतिहास – आरम्भ से 1206 ई.**
3	**Course Type**	Core Course
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject History in class 12'h.
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: विद्यार्थी इस पाठ्यक्रम के अध्ययन से आदिम युग/वैदिक युग के जीवन, संस्कृति से परिचित होंगे एवं मौर्यकालीन/गुप्तकालीन/वर्धन कालीन सामाजिक/सांस्कृतिक/धार्मिक/राजनीतिक इतिहास के संबंध में जानकारी प्राप्त करेंगे। साथ ही साथ विद्यार्थियों को यह भी ज्ञात होगा कि विदेशी यात्रियों की दृष्टि से भारत का सामाजिक, आर्थिक, प्रशासनिक एवं आर्थिक परिदृष्य कैसा था। पाठ्यक्रम में क्षेत्रीय विषय वस्तु (इतिहास) का समावेश किया गया है, जो विद्यार्थियों को क्षेत्रीय ज्ञान से परिचित कराएगा। Student will acquire knowledge reqarding the primitive/life, cultural status of Ancient India. They can gather knowledge about the society, culture religion and political history of Maurya, Gupta, harshawardhan period and know the reason for foreign Invasion in India at the Ancient time. They will also acquire knowledge of socio, Economic, Cultural and Administrative (Political) scenarios of India and what is the picture of India in light of foreign travellors. In syllabus Introduce the regional history. Student can gather knowledge of Regional history.
6	**Credit Value**	**Theory 05** **Internal , Assignment 01**

7	**Total Marks**	Theory:	Internal Test	Assignment	
	100	Max. Marks: 80	Max. Marks: 10	Max. Marks: 10	Min. Passing Marks: 40

12/5/18

Part B: Content of the Course

Total Period : 60

Self Study :

1. **Concept (अवधारणा)**
2. **Prehistoric (प्रागैतिहासिक)**
3. **Sources (स्त्रोत)**
4. **Apics (महाकाव्य)**
5. **Vedic (वैदिक)**
6. **Greater (वृहतर)**

Unit		No. of Lectures
I	1. Concept of History, Nature, Scope and importance. 2. Geographical Features of India and its impact on History 3. Survey of sources of Ancient Indian History 4. Pre Historic Age (Stone Age) 5. Harappan civilization- In Light of new Archeological sources 1. इतिहास की अवधारणा, स्वरूप, क्षेत्र एवं महत्व 2. भारत की भौगोलिक विशेषताएं, इतिहास पर उनका प्रभाव 3. प्राचीन भारतीय इतिहास के स्त्रोंतों का सर्वेक्षण 4. प्रागैतिहासिक काल (पाषाण काल) 5. हड़प्पा सभ्यता :– नवीन पुरातात्विक स्त्रोंतों के आलोक में	**12**
II	1. Vedic civilization and culture 2. The Age of Apics 3. India in the 6th century B.C. 4. Religions Revolution in Ancient India Jainism & Buddhism 5. Rise of Magadha 1. वैदिक सभ्यता और संस्कृति 2. महाकाव्यों का युग (रामायण काल/महाभारत काल) 3. इ. पू. छठी शताब्दी का भारत – महाजनपद काल 4. प्राचीन भारत में धार्मिक क्रांति – जैन धर्म, बौद्ध धर्म 5. मगध का उत्कर्ष	**12**
III	1. Alexander Invasion & its effect 2. Maurya Empire – Chandragupta & Ashok 3. Post Maurya period – sungs, kashan, satvahan 4. The sangam Age – Litrature, culture, chola & pandya 1. सिकंदर का आक्रमण एवं उसका प्रभाव 2. मौर्य साम्राज्य – चन्द्रगुप्त मौर्य एवं अशोक 3. मौयोत्तर काल – (शुंग, कुषाण, सातवाहन) 4. संगम युग – साहित्य, संस्कृति, चोल एवं पाण्ड्य	**12**

12/5/23

12.05.2023

IV	1. Gupta Age (Age of Gupta) – Administration, Economical Social & cultural condition 2. Harshwardhan & its time 3. Rajpoot era – Administration and social Systems 4. South India Royal Dynesties and Greater India 5. Arab, Turks Invasion on India & its effect. 1. गुप्तकाल – प्रशासन, आर्थिक, सामाजिक एवं सांस्कृतिक दशा 2. हर्षवर्धन एवं उसका युग 3. राजपूतों का युग, प्रशासनिक एवं सामाजिक व्यवस्था 4. दक्षिण भारतीय राजवंश एवं वृहत्तर भारत 5. भारत पर अरब, तुर्क आक्रमण और उनका प्रभाव	**12**
V	1. Introduction of Chhattisgarh – Nomenclature & Geographical condition 2. Pre Historic age 3. Vedic age, Mahajapada Age 4. Mauryan, Satvahan And Gupta period 5. Rajarshri tulya kul, Sharabhapuriya, Nalvansha, chindak nagvansh and somavansh 1. छत्तीसगढ़ का परिचय – नामकरण एवं भौगोजिक स्थिति 2. प्रागैतिहासिक काल 3. वैदिक काल, महाजनपद काल 4. मौर्यकाल, सातवाहनकाल, गुप्तकाल 5. राजर्षितुल्य कुल, शरभपुरीयवंश, नलवंश छिंदक नागवंश एवं सोमवंश	12

Keywords/Tags-

1. **Concept (अवधारणा), Prehistoric (प्रागैतिहासिक), Sources (स्त्रोत), Apics (महाकाव्य), Vedic (वैदिक), Greater (वृहतर)**

Part C: **Learning** Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Text Books:

1. रतिभान सिंह नाहर – प्राचीन भारतीय इतिहास एवं संस्कृति
2. शांता शुक्ला – भारत का राजनीतिक इतिहास
3. बी. एन. लूनिया – प्राचीन भारतीय संस्कृति
4. एस. आर. शर्मा – प्राचीन भारत (प्रागैतिहासिक युग से 1200 ई. तक)
5. K. L. Khurana – History of India from – Earliest time to 1526 A.D.
6. K. L. Khurana - Ancient India from Earliest Time to 1206 A. D.
7. Vincent Smith - Oxford History of India
8. भार्गव – प्राचीन भारत
9. L. Prasad - Ancient India – Indius Volley Civilization to 1200 A. D.
10. भगवान सिंह वर्मा – छत्तीसगढ़ का इतिहास प्रारंभ से 1947 ई. तक
11. राम कुमार बेहार – छत्तीसगढ़ का इतिहास
12. ऋषिराज पांडे – दक्षिण कौशल के कल्चुरी
13. व्ही. व्ही. मिराशी – कल्चुरी नरेश और उनका काल
14. सुरेश चंद्र शुक्ला – छत्तीसगढ़ का समग्र अध्ययन
15. किशोर अग्रवाल – बीसवीं शताब्दी का छत्तीसगढ़

12/5/23

16. लाला जगदलपुरी	– बस्तर का इतिहास एवं संस्कृति
17. प्यारे लाल गुप्त	– प्राचीन छत्तीसगढ़
18. सी. एल. शर्मा	– छत्तीसगढ़ की रियासतें
19. हीरालाल शुक्ल	– छत्तीसगढ़ का जनजातीय इतिहास
20. पी. एल. मिश्र	– मुगलकालीन छत्तीसगढ़
21. ए. के. मित्तल	– भारत का इतिहास तथा विश्व का इतिहास (यूनिफाइड) (प्रारम्भ से 1206 एवं 1453 से 1789 तक)
22. डॉ. संजीव जैन	– भारत का इतिहास तथा विश्व का इतिहास (यूनिफाइड) (प्रारम्भ से 1206 एवं 1453 से 1789 तक)

Suggested Digital Platforms Web.links:

1. DELENT – Home "https://delnet.in"
2. Official websites of UGC, ICHR, CG.Govt
3. E-Pathshala
4. N-List: National Liberary and Information services
5. Infrastructure for scholarly content "https://nlist.inflibnet.ac.in"

12/5/23

12-05-2023

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	Class: **B. A. 1st Year**	**Semester-II**	**Year: 2023**	**Session: 2023-24**

Subject: HISTORY

1	**Course Code**	HIS-201
2	**Course Title** (Name of Paper)	**World History (From 1453 to 1870 A.D.)** **विश्व इतिहास (1453 से 1870 ई.)**
3	**Course Type**	Core Course
4	**Pre-requisite (if any)**	**To** study this course, a student must have had the subject History in class 12'h.
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: 1453 से 1470 के बीच यूरोप के ऐतिहासिक विकास का विश्लेषण करने में इस पाठ्यक्रम का अध्ययन करने से विद्यार्थी सक्षम होंगे एवं यूरोप में पुरातन सामंतवादी व्यवस्था के पतन के बाद आधुनिक युग का आरम्भ कैसे हुआ, यूरोप में औद्योगिक क्रांति की शुरूआत किन परिस्थितियों में हुई जिसने समूचे विश्व की अर्थव्यवस्था को सबसे अधिक प्रभावित किया एवं विश्व के सामने नई चुनौतियां जैसे – क्रांति, सुधार आंदोलन का सामना करना पडा, जान सकेंगे पुराने साम्राज्यवाद का पतन एवं नवीन साम्राज्यवाद रूपी समस्या का विश्व को सामना कैसे करना पड़ा यह भी ज्ञात होगा। The Student will be able to analyze the Historical development in Europe between 1453 to 1870. They will acquire knowledge regarding the downfall of Feudalism and the rise of modern age. How was the Industrial revolution start and after that the Economy of the whole world was changed and the world phase the new political challenges like – Revolution, Reform moments and how the old Imperialism was goan for ever & new Imperialism was born (rise) and the world phase the new problem of new Imperialism.
6	**Credit Value**	**Theory 05** **Internal , Assignment 01**

7	**Total Marks**	Theory:	Internal Test	Assignment	
	100	Max. Marks: 80	Max. Marks: 10	Max. Marks: 10	Min. Passing Marks: 40

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Part B: Content of the Course

Total Period : 60

Self Study :

1. **Renaissance (पुर्नजागरण)**
2. **Counter Reformation (प्रतिधर्म सुधार आंदोलन)**
3. **Meternikh (मेटरनिख)**

Unit		No. of Lectures
I	1. Sailent Feature of Modern Europe 2. Renaissance 3. Reformation & counter Reformation 4. Rise of Nation States 5. Mercantilism, colonialism 1. यूरोप में आधुनिक युग की विशेषताएं 2. पुर्नजागरण 3. धर्मसुधार आंदोलन व प्रतिधर्म सुधार आंदोलन 4. राष्ट्रीय राज्यों का उदय 5. वाणिज्यवाद, उपनिवेशवाद	**12**
II	1. Industrial Revolution 2. Civil war in England 3. Glorious Revolution 1688 4. American war of Independence 1. औद्योगिक क्रांति 2. इंग्लैंड में गृहयुद्ध 3. गौरवपूर्ण क्रांति 1688 4. अमेरिका का स्वतंत्रता संग्राम आंदोलन	**12**
III	1. French Revolution 1789 2. Nepoleon Era 3. Viena congress 4. Conservative – Maternikh Age 1. फ्रांस की क्रांति 1789 2. नेपोलियन युग 3. वियना कांग्रेस 4. अनुदारवाद – मेटरनिख युग	**12**
IV	1. Revolution of 1830 and 1848 in Europe 2. The Rise and development of Liberalism (Reform Act of 1832 and 1867) 3. Chantist movement 4. Eastern problem up to 1870A. D. 1. यूरोप में 1830 एवं 1848 की क्रांति 2. इंग्लैंड में उदारवाद का उदय एवं विकास (1832 एवं 1867 सुधारअधि) 3. चार्टिस्ट आंदोलन 4. पूर्वी समस्या 1870 ई. तक	**12**

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V	1. New Imperialism 2. Colonialism and Imperialism in china up to 1870 A. D. 3. Colonialism in Japan up to 1870 A. D. 4. Modernization of Japan 1. नवीन साम्राज्यवाद 2. चीन में उपनिवेशवाद तथा साम्राज्यवाद 1870 तक 3. जापान में उपनिवेशवाद 1870 तक 4. जापान का आधुनिकीकरण	12

Keywords/Tags- अनुदारवादी – Conservative, वैभवपूर्ण क्रांति – Glorious Revolution, गृहयुद्ध – Civil War

Part C: **Learning** Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Text Books:

1. बी. एन. मेहता – अर्वाचीन यूरोप
2. बी. आई. पाल – आधुनिक यूरोप
3. K. L. Khurana – History of Modern Europe
4. Khurana & Sharma – Modern Europe – 1453 to 1789 A. D.
5. डॉ. संजीव जैन – विश्व का इतिहास (1453 ई. से 1789 ई.)
6. डॉ. ए. के. मित्तल – विश्व का इतिहास (1453 ई. से 1789 ई.)
7. दहीभाते एवं पारिख – विश्व का इतिहास (1453 ई. से 1789 ई.)
8- बी. एन. लूनिया – विश्व का इतिहास (1453 ई. से 1789 ई.)

Suggested Digital Platforms Web.links:

1. DELENT – Home "https://delnet.in"
2. Official websites of UGC, ICHR, CG.Govt
3. E-Pathshala
4. N-List: National Liberary and Information services
5. Infrastructure for scholarly content "https://nlist.inflibnet.ac.in"

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1.1.1, 1.1.2, 1.2.1

Govt.J.Yoganandam Chhattisgarh College,

Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	Class: BA 1st year	Semester- 1st	**Year:** 2023	**Session: 2023-24**
Subject: Philosophy				

1	**Course Code**	**PHI 101**	
2	**Course Title** (Name of Paper)	भारतीय दर्शन **Indian Philosophy**	
3	**Course Type**	कोर कोर्स	
4	**Pre-requisite (if any)**	इस **कोर्स का अध्ययन करने के लिए, छात्र ने विषय BA अध्ययन कक्षा/12वीं/प्रमाण पत्र/डिप्लोमा में किया हो ।** इस **पाठ्यक्रम को निम्नलिखित विषयों के छात्रों द्वारा एक वैकल्पिक विषय के रूप में चुना जा सकता है: ...../सभी के लिए उपलब्ध (Open For all)**	
5	**Course Learning Outcomes** (CLO)	इस पाठ्यक्रम को पुरा करने के बाद छात्र इस स्थिति में होगा । कि 1 भारतीय दर्शन की स्थिति को समक्ष सके। 2 दर्शन शास्त्र के काल क्रम की जानकारी होगी। 3 विषय से संबंधित विभिन्न अध्ययन पद्धतियो से परिचित होगा।	
6	**Credit Value**	**Theory 5**	**Tutorial 1**
7	**Total Marks** 100	Theory 80 Internal 10 Assin. 10	न्यूनतम उत्तीर्ण अंक: 40

Part B: Content of the Course

Total Period : 60

Unit		No. of Lectures
I	1 भारतीय दर्शन : परिचय एवं विशेषताएं 2 वेद : बहुदेववाद 3. उपनिषद : आत्मा	15
II	1 चावार्क दर्शन : भौतिकवाद 2 जैन दर्शन : ~~स्याद्वाद~~ स्यात्वाद , जीव , स्यात्वाद 3 बौद्ध दर्शन : चार आर्यसत्य , अनात्मवाद	15
III	1 न्याय दर्शन : प्रमाण 2 वैषेषिक द दर्शन : परमाणुवाद 3 सांख्य दर्शन : द्वैतवाद 4 योग दर्शन : अष्टांग योग	15
IV	1 मीमांसा दर्शन : प्रमाण्यवाद, अपूर्व 2 शंकराचार्य : ब्रम्ह, माया , आत्मा	15

V	1 रामानुजाचार्य : ब्रम्ह , भक्ति 2 वल्लभाचार्य : पुष्टिमार्ग	15

1.1.1, 1.1.2, 1.2.1

Keywords/Tags-

Part C: Learning Resources
Text Books. Reference Books, Other Resources
Suggested Readings: Text Books: 1. भारतीय दर्शन – भाग –1, भाग–2, डॉ. राधाकृष्णन। 2. भारतीय दर्शन : आलोचना एवं अनुशीलन – डॉ. चंद्रधर शर्मा। 3. दर्शन की मुलधाराऐं – डॉ. धीरेद्रमोहन दत्त। 4. भारतीय दर्शन – सतीशचंद्र चटर्जी एवं धीरेद्रमोहन दत्त। 5. भारतीय दर्शन की रूपरेखा – डॉ. हरेन्द्रप्रसाद सिन्हा । 6. भारतीय दर्शन.– डॉ. शोभा निगम। 7. पातंजल योग – थुले

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	Class: BA 1st year	Semester- 2nd	**Year:** 2023	**Session: 2023-24**
Subject: दर्शनषास्त्र				

1	**Course Code**	**PHI 201**
2	**Course Title** (Name of Paper)	पाश्चात्य दर्शन **Western Philosophy**
3	**Course Type**	कोर कोर्स
4	**Pre-requisite (if any)**	**इस कोर्स का अध्ययन करने के लिए, छात्र ने विषय BA अध्ययन कक्षा/12वीं/प्रमाण पत्र/डिप्लोमा में किया हो।** **इस पाठ्यक्रम को निम्नलिखित विषयों के छात्रों द्वारा एक वैकल्पिक विषय के रूप में चुना जा सकता है: ...../सभी के लिए उपलब्ध (Open For all)**
5	**Course Learning Outcomes** (CLO)	इस पाठ्यक्रम को पुरा करने के बाद छात्र इस स्थिति में होगा । कि 1 पाश्चात्य दार्शनिक परम्पराओ का ज्ञान। 2. पाठ्यक्रम का उद्देश्य छात्रों को पुरातन से आधुनिक युग तक पश्चिमी दर्शन के मुख्य विचारकों और सिद्धांतों के लिए एक विशद् परिचय प्रदान करना है। ताकि पाश्चात्य दर्शन की दार्शनिक कथा में निरंतरता के साथ –साथ अवरोध समझने में सक्षम हो सके
6	**Credit Value**	**Theory 5** **Tutorial 1**
7	**Total Marks** 100	Theory 80 Internal 10 Assin. 10 न्यूनतम उत्तीर्ण अंक: 40

Part B: Content of the Course

Total Period : 60

Unit		No. of Lectures
I	1 पाश्चात्य दर्शन : परिचय एवं विशेषताएं 2 प्लेटो – प्रत्ययों का सिद्धांत 3 अरस्तु : कारणता का सिद्धांत	15
II	1 संत थॉमस एक्विनॉस – ईश्वर के अस्तित्व के प्रमाण 2 डेकार्ट – संदेहवादी पद्धित , आत्मा का अस्तित्व , ईश्वर का अस्तित्व	15
III	1 स्पिनोजा : द्रव्य , गुण , पर्याय, सर्वेश्वरवाद 2 लाइब्निज – चिद्बिंदुवाद ।	15

1.1.1, 1.1.2, 1.2.1

IV	1 जॉन लॉक– सहज प्रत्ययो का खंडन ,द्रव्य , मुलगुण तथा उपगुण। 2 जॉज बर्कले – आत्मगत प्रत्ययवाद, मुलगुण एंव उपगुण खंडन	15
V	1 डेविड हुयुम – संस्कार व प्रत्यय , संदेहवाद , आत्मा का खंडन। 2 इमैन्युअल कांट– समीक्षावाद।	15

Keywords/Tags-

Part C: Learning Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Text Books:

2. पाश्चात्य दर्शन –डॉ चंद्रधर शर्मा
3. पाश्चात्य दर्शन दर्पण – डॉ ओ बी एल कपुर
4. पाश्चात्य दर्शन डॉ. अशोक कुमार वर्मा
5. तत्वमीमांसा एवं ज्ञानमीमांसा – डॉ. अशोक कुमार वर्मा

1.1.1, 1.1.2, 1.2.1

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Part A: Introduction					
Programme : Certificate Course	Class: B.A. I year		Semester- I	Year: 2022	Session: 2022-23
Subject: Psychology					
	Course Code	PSY101			
2	Course Title (Name of Paper)	Fundamentals of Psychology			
3	Course Type	Core Course			
4	Course Learning Outcomes (CLO)	The course will enable the students to: 1. Understanding what psychology is all about. 2. Appreciation of scope and field of psychology. 3. Developing familiarity with the basic concept related to foundational theme of study in psychology such as learning, memory, motivation, Emotion, perception and human biological system including brain. 4. Developing familiarity with individual level phenomenon such as Intelligence and Personality.			
5	Credit Value	Theory: 04		Practical: 02	
6	Total Marks	Max. Marks: 60		Min. Passing Marks: 20	

Part B: Content of the Course Total Period : 60		
Unit		No. of Lectures
I	**Introduction-** Nature, goal and Concept of Psychology, Scope of Psychology. Methods to study behaviour Observation, Experiment, Interview, Questionnaire and Case Study.	12
II	**Biological Bases of Behaviours-** Genes and Behavior, Nervous System: C.N.S., A.N.S. and Peripheral Nervous System; Glands and Hormones.	12
III	**Mental Processes** – Nature and Types of Sensation; Perception - Nature, Types and determinants, Principles of Perceptual Organization.	14
IV	**Learning and Memory:** Classical and Operant Conditioning – Basic Processes; Verbal and Observational Learning. Memory: Meaning, Nature types of memory (Sensory, S.T.M., L.T.M.), Causes of forgetting.	12
V	**Cognitive and Non cognitive Processes-** Intelligence: Nature and Types, Emotions: Meaning, Nature and characteristics. Motivation: Meaning, Nature and types (Sociogenic and biogenic).	14

Keywords/Tags- Motivation, Intelligence, Learning, Memory, Sensation, Perception, Attention, Hormones etc.

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1.1.1, 1.1.2, 1.2.1

Part C: Learning Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Books:

1. Atkinson & Hillgard, *Introduction To Psychology*
2. Prof. S.P.Choubey & Prof. Akhilesh Choubey.*Essentials of General Psychology*
3. D.N. Shrivastava, *General Psychology*
4. –अरूण कुमार सिंह, *सामान्य मनोविज्ञान* बनारसीदास प्रकाशन
5. प्रीति वर्मा– *आधुनिक सामान्य मनोविज्ञान*

Reference Books:

1. Baron R.A., Bayrne D.A.-*Understanding Behavior* , Tokyo Halt Sounders
2. Zimbardo P.G. & Walser AL 1997 - Psychology *New York Haper Colling College Publishers*
3. R.N. Singh & Shubhra S. Bharadwaj 2015-16- Basic Psychological Process , *Agrwal Publication*
4. Saundra K. Cocarelli & J. Noland 2017, Psychology. *Pearson Education*
5. Morgen &King, Weisz &Schopler, Introduction to Psychology, Indian Edition

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Raipur (C.G.)

Part A: Introduction

Programme : Certificate Course	Class: B.A. 1st year	Semester- First	Year: 2022	Session:2022-23
Subject: Psychology				

1	Course Code	PSYP101	
2	Course Title (Name of Paper)	Psychology Practicum	
3	Course Type	Core Course	
4	Pre-requisite (if any)	-	
5	Course Learning Outcomes (CLO)	The course will enable the students to: 1. Learn through experiment, division of attention, effect on set on perception. 2. Understand about the emotions. 3. Through the experiment student will able to learn how the course material is easy to memories and recall for any exam. 4. Developing a insight how to deal with frustration which impact on performance.	
6	Credit Value	Theory:	Practical
7	Total Marks	Max. Marks: 30	Min. Passing Marks: 10

Part B: Content of the Course

Total Period :

Comprises of Laboratory Experiments.

Experiments – (any five of the following) :-

(i) Effect of Set on Perception
(ii) Effect of Frustration on Performance.
(iii) Division of Attention.
(iv) Learning Curve/Serial position Curve
(v) S.T.M.
(vi) Concept Formation.
(vii) Judgment of Emotions through Facial Expressions.

Part C: Learning Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Reference Books

1. Sharma, S.N. and Bhargava, V.(2019). *Experiments and test in Psychology and Education*, H.P. Bhargava, Book House
2. Singh, R. N. and Bharadwaj, S.S. (2015-16). *Modern Psychological Experiments and Test*. Agrawal Publication
3. डॉ.मोहम्मद सुलेमान एवं डॉ.रिजवाना तरन्नुम, मनोविज्ञान में प्रयोग एवं परीक्षण अग्रवाल प्रकाशन
4. डॉ.जान्हवी श्रीवास्तव, मनोवैज्ञानिक प्रयोग एवं परीक्षण, अग्रवाल प्रकाशन
5. डॉ.अरूणा चौबे, साइको लैब, वैभव प्रकाशन ।

Suggested Digital Platforms Web.links:

1.

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course **B. A.**	Class: **B. A. 1st Year**	**Semester-II**	**Year: 2022**	**Session: 2022-23**

Subject: PSYCHOLOGY

1	**Course Code**	PSY-201
2	**Course Title** (Name of Paper)	PSYCHOPATHOLOGY
3	**Course Type**	Core Course
4	**Course Learning Outcomes** (CLO)	The course will enable the students to: 1. Learn about mental health. 2. Know about mental health issues. 3. Learn about diagnosis. 4. It outcome 5. Prognosis 6. Etiology 7. Treatment
5	**Credit Value**	Theory: Practical
6	**Total Marks**	Max. Marks: 50 | Min. Passing Marks: 17

Part B: Content of the Course

Total Period : 60

Self Study :

1.
2.
3.
4.
5.

Unit		No. of Lectures
I	Introduction: The Concept of Normality and Abnormality; Models of Psychopathology: Psychodynamic, Behavioral and Biological.	**12**
II	Assessment of Psychopathology: - Diagnostic Tests, Rating Scales, Clinical Interview, Projective Tests.	**12**
III	Anxiety Disorders: Panic Disorder, Phobias, Obsessive Compulsive Disorder, PTSD, Eating Disorder.	**12**
IV	Mood Disorder: Unipolar and Bipolar Disorder. Schizophrenia and its types.	**12**
V	Management of Psychopathology: Stress Management: Psycho Therapy: Psychoanalysis, Group Therapy and Behaviour Therapy	**12**

Keywords/Tags-

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Part C: **Learning** Resources

Text Books. Reference Books, Other Resources

sted Readings:

Books:

1. Lamm, A. (1997) - Lamm, A. (1997) Introduction to Psychopathology, Sage N.Y.
2. Buss, A.H. (1999) - Psychopathology N.Y.John wilcy
3. लाभ सिंह तथा तिवारी – सामान्य मनोविज्ञान – आगरा विनोट पुस्तक भण्डार
4. कपिल एच.के. – असामान्य मनोविज्ञान – हरप्रसाद भार्गव, आगरा

Reference Books:

1. अरूण कुमार सिंह – आधुनिक असामान्य मनोविज्ञान

Suggested Digital Platforms Web. Links:

1. simplypsychology.org

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Govt.J.Yoganandam Chhattisgarh College,
Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	Class: B.A.1st year	Semester- 2nd	Year: 2022	Session:2022-23

Subject: Psychology

1	**Course Code**	PSYP201
2	**Course Title** (Name of Paper)	Psychology Practicum
3	**Course Type**	Core Course
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject BA in class 12th.
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: Psychological testing is very useful to measure the behavior of an individual. The Curriculum has been designed, through which students learn to test the different aspects of behavior. 1. Learn to measure different behavior like level of Anxiety, Depression and Stress tolerance. 2. Learn to test type of personality. 3. Learn to test Adjustment level towards the society. 4. Learn to test achievement motivation level of students.
6	**Credit Value**	Theory: 04 Practical 02
7	**Total Marks**	Max. Marks: 30 Min. Passing Marks: 10

Part B: Content of the Course	
	Total Period :
	Comprises of Laboratory Experiments
	Psychological Testing is to understanding of self and 0thers (any four of the following Tests and One Clinical Case Study) i. Verbal/Nonverbal Intelligence Test/Performance Tests ii. E.P.I. iii. Anxiety Test iv. Depression Scale v. Adjustment Inventory vi. Achievement Motivation vii. Stress Tolerance Test

Part C: Learning Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Reference Books

6. Sharma, S.N. and Bhargava, V.(2019). *Experiments and test in Psychology and Education*, H.P. Bhargava, Book House
7. Singh, R. N. and Bharadwaj, S.S. (2015-16). *Modern Psychological Experiments and Test*. Agrawal Publication
8. डॉ.मोहम्मद सुलेमान एवं डॉ.रिजवाना तरन्नुम, मनोविज्ञान में प्रयोग एवं परीक्षण अग्रवाल प्रकाशन
9. डॉ.जान्हवी श्रीवास्तव, मनोवैज्ञानिक प्रयोग एवं परीक्षण, अग्रवाल प्रकाशन
10. डॉ.अरूणा चौबे, साइको लैब, वैभव प्रकाशन ।

Suggested Digital Platforms Web.links:

4.
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Govt. J. Yoganandam Chhattisgarh College, Raipur, Chhattisgarh, India
शासकीय जे. योगानन्दम छत्तीसगढ़ महाविद्यालय, रायपुर, छत्तीसगढ़, भारत
An Autonomous College
Affiliated to Pt. Ravishankar Shukla University Raipur

Part A : Introduction

Programme : Certificate Course	Class : B.A. श्रेणी– बी.ए.	Semester : I सेमेस्टर–प्रथम	Year : 2022 वर्ष : 2022	Session : 2022-23 सत्र : 2022–23

Subject : SOCIOLOGY
विषय : समाजशास्त्र

1	**Course Code**	**SOC 101**		MM-100
2	**Course Title** (Name of Paper)	**Introduction to Sociology** **समाजशास्त्र का परिचय**		
3	**Course Type**	**Core Course**		
4	**Pre-requisite** (if any)	To study this course, a student must have had the subject ..... in class 12^{th}.		
5	**Course Learning Outcomes** (CLO)	**The Course will enable the students to :** 1. Understand the area of sociology. विद्यार्थियों का समाजशास्त्र के क्षेत्र से परिचय होगा। 2. Understand Basic Concept of Sociology such as Society Community Family, Institution Culture Social Process etc. विद्यार्थियों को समाजशास्त्र की मौलिक अवधारणाओं को समझाने में सहायक जैसे– समाज, समुदाय, परिवार, संस्था, संस्कृति, सामाजिक प्रक्रिया आदि। 3. Understand importance of Sociology. समाजशास्त्र के महत्व की जानकारी प्राप्त होगी। 4. Understand society & mobility. समाज और गतिशीलता को समझने में सहायक। 5. Understand the Nature of social change & social system. सामाजिक परिवर्तन और सामाजिक व्यवस्था की प्रकृति को समझने में सहायक।		
6	**Credit Value**	**Theory :**	**Practical :**	
7	**Total Marks**	**Max. Marks:** 100	**Min. Passing Marks:** 33	

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Part B : Content of the Course

Total Period : 60 + 15 Tutorial SOCT 101

Unit		No. of Lectures
I	**Sociology** – Concept, Nature, Scope, Subject matter and significance. **Basic Concepts** – Society, Community, Institution, Association, Group, Status and role. **समाजशास्त्र**– अवधारणा, प्रकृति, क्षेत्र, विषय वस्तु एवं महत्व। **मूल अवधारणाएँ**– समाज, समुदाय, संस्था, समिति, समूह, परिस्थिति एवं भूमिका।	10
II	**Social Institution** – Family, Marriage. **Culture & Society** – Culture, socialization. The individual & society, social control, norms, values. **सामाजिक संस्था**– परिवार एवं विवाह। **संस्कृति और समाज**– संस्कृति, समाजीकरण, व्यक्ति और समाज, सामाजिक नियंत्रण, प्रतिमान व मूल्य।	10
III	**Social Stratification** – Meaning forms & Theories. **Social Mobility** - Meaning, forms. **सामाजिक स्तरीकरण**– अर्थ स्वरूप व सिद्धांत। **सामाजिक गतिशीलता**– अर्थ स्वरूप।	10
IV	**Social Change** - Meaning, types, factors, evolution & Progress. **सामाजिक परिवर्तन**– अर्थ, प्रकार, कारक, उद्विकास और प्रगति	10
V	**Social System and Process:** – Social System meaning characteristics and elements. **Social Process:** – Meaning types & characteristics. **सामाजिक व्यवस्था और प्रक्रिया**– **सामाजिक व्यवस्था**– अर्थ, विशेषताएँ और तत्व। **सामाजिक प्रक्रियाएँ** –अर्थ, प्रकार एवं विशेषताएँ।	10
Keywords/Tags- • Tutorial Based on syllabus of the Paper. • ट्युटोरियल प्रश्न पत्र के पाठ्यक्रम पर आधारित होगा।		15

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Part C : Learning Resources

Text Books. Reference Books, Other Resources

Suggested Reading:
Text Books:

1. **समाजशास्त्र** – डॉ. सुनील गोयल, रामप्रसाद पब्लिकेशन।
2. **समाजशास्त्र** – प्रो. एम.एल. गुप्ता एवं डॉ. बी.डी. शर्मा, साहित्य भवन पब्लिकेशन्स।
3. **भारतीय सामाजिक विचारक** – दोषी एवं जैन।

Reference Books:

1. **Bottomare T.B.- Sociology –** A Guide to Problems and Literature, Bombay George allen and un win (India).1972.
2. **Inkeles Alex** -what is sociology? New Delhi Prentice Hall of India 1987.
3. **Jayanarayan N.-** Introductory Sociology Madras Macmillan India 1988.
4. **Johnson Harny M.-** Sociology of Systematic Introduction New Delhi Allied Publishers.

Suggested Digital Platforms Web Links:
1. www.ignoustudymaterials.com

Part A : Introduction

Programme : Certificate Course	Class : B.A. श्रेणी– बी.ए.	Semester: II सेमेस्टर–द्वितीय	Year : 2022 वर्ष : 2022	Session : सत्र : 2(

Subject :

- SOCIOLOGY
- समाजशास्त्र

1	**Course Code**	**SOC 201**
2	**Course Title** (Name of Paper)	**Contemporary Indian Society** **समकालीन भारतीय समाज**
3	**Course Type**	**Core Course**
4	**Pre-requisite** (if any)	To study this course, a student must have had the subject ..... in class 12th .
5	**Course Learning Outcomes** (CLO)	**The Course will enable the students to :** 1. Similarity among Student about Indian Society. भारतीय समाज व विद्यार्थियों में समरसता समझ विकसित होगी। 2. It will present a comprehensive Integrated and empirical profile o Indian Society. यह पाठ्यक्रम समाज के विस्तृत, एकीकृत, अनुभवात्मक, पार्श्व चित्र प्रस्तु करेगा। 3. To understand the structure and process operative in the society. यह समाज का संरचनात्मक, प्रक्रियात्मक और कार्यकारी रूप प्रस्तुत करेग 4. Understand changing agents operating in Indian Society to understa their situation & religion. यह पाठ्यक्रम भारतीय समाज में परिवर्तन लाने वाले कारकों की जानकारी देगा ताकि विद्यार्थी अपनी परिस्थिति और क्षेत्र के आधार पर समाज को समझेगा।

6	**Credit Value**	**Theory :**	**Practical :**
7	**Total Marks**	**Max. Marks: 100**	**Min. Passing Marks: 33**

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Part B : Content of the Course

Total Period : 60 + 15 Tutorial SOCT-201

Unit	
I	**Classical View about Indian Society**– Varna, Ashram, Karma, Dharma, Purusharth. **भारतीय समाज के विषय में शास्त्रीय विचार** : वर्ण आश्रम, कर्म, धर्म व पुरूषार्थ
II	**The structure and composition of Indian Society** – Village, Town, Cities & Rural Urban Linkage. **Composition** – Tribes, Women & Dalit & Minorities **भारतीय समाज की संरचना और संयोजन :** **संरचना** : ग्राम, कस्बा, नगर, ग्रामीण तथा नगरीय सातत्य **संयोजन** : जनजाति, महिला, दलित एवं अल्पसंख्यक
III	**Basic Institution of Indian Society**– Caste System Family, Marriage & Changing dimensions. **भारतीय समाज की मौलिक संस्थाएँ** : जाति व्यवस्था, संयुक्त परिवार, विवाह बदलते आयाम
IV	**Familiar Problems** - Dowry, Domestic Violence, Divorce, Intergenerational Conflict, Problems of elderly. **पारिवारिक समस्याएँ** : दहेज, घरेलू हिंसा, विवाह विच्छेद, अंतर पिढ़ी संघर्ष, वृद्धों की समस्याएँ
V	**Folk Culture of Chhattisgarh:** – Custom & Traditions, Food Culture, Festivals & Dance. **छत्तीसगढ़ की लोक संस्कृति** : प्रथा, त्योहार, नृत्य, खान–पान, संस्कृति।

Keywords/Tags-

- Tutorial Based on syllabus of the Paper.
- टयुटोरियल प्रश्न पत्र के पाठ्यक्रम पर आधारित होगा।

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Part C : Learning Resources

Text Books. Reference Books, Other Resources

Suggested Reading:

Text Books:

1. भारतीय समाज – श्री एम.एल.गुप्ता और डॉ. बी.डी. शर्मा, साहित्य भवन पब्लिकेशन्स।
2. भारतीय समाज – श्री गोपाल कृष्ण अग्रवाल, साहित्य भवन पब्लिकेशन्स।

Reference Books:

1. **Dubey S.C. 1995-** Society in India New Delhi – National Book Trust.
2. **Mandelbaun D.G. 1970** -Society in India- Bombay Popular Prakashan.
3. **Shrinivas M.N. 1973** -Social Change Culture New Delhi.- Hindustan Publishing Corporation.
4. **Shrinivas M.N. 1973** -Social Change in Modern India, California University of California Press.
5. **Uberoi Patricia-** 1973 Family & Marriage India New Delhi- Oxford University Press.

Suggested Digital Platforms Web Links:

1. www.ignoustudymaterials.com

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	Class: BA	Semester-I	Year: 2022	Session: 2022-23
Subject: Political Science राजनीति विज्ञान				

1	Course Code	POL101	
2	Course Title (Name of Paper)	Political Theory राजनीति विज्ञान	
3	Course Type	Core Course	
4	Pre-requisite (if any)	To study this course, a student must have had the subject Arts in class 12th.	
5	Course Learning Outcomes (CLO)	The course will enable the students to: 1. Meaning and Definition of Political Science 2. State and its Essential Elements 3. Saver eighty And its Meaning 4. Kind of Government 5. Public Welfare State	
6	Credit Value	Theory: 05	Tutorial -01
7	Total Marks	Max. Marks: 100	Min. Passing Marks: 27
		Theory - 80	Assesment-10 Assignment- 10 (Mini-03)

Part B: Content of the Course

Total Period : 60

Self Study :

1. Meaning of Political Science
2. Origin of State
3. Saver eighty
4. Mining of Government
5. Public Welfare State

Unit		No. of Lectures
I	Meaning and Definition of Political Science (With Modern Concept), Political as a Specific Human Behavior, Power, Authority and Influence Meaning Feature and Kinds Method of Study to Political Science Traditional, Behaviouralism And Post Behaviouralism. राजनीति विज्ञान का अर्थ, परिभाषा (आधुनिक आधारना सहित) राजनीति एक विशिष्ट मानवीय व्यवहार के रुप में। शक्ति, सत्ता, प्रभाव – अर्थ, विशेषताएँ प्रकार। कवि की अध्ययन पद्धतियाँ – परम्परागत एवं व्यवहारवाद एवं उत्तर व्यवहारवाद	12
II	State and its Essential Elements Various Theories of the Origin of the State Marxist Theory Organismic Theory. राज्य एवं उसके आवश्यक तत्व। राज्योपत्ति के विभिन्न सिद्धान्त, मार्क्सवादी सिद्धान्त । सावयविक सिद्धान्त	12

III	Sovereignty and its Pluralistic Eroticism Right Meaning, Kinds and Theories Duties Liberty Meaning Kinds Safe Guards Equality Meaning Kind and Relations with Liberty Democracy Meaning, Comprehensive Meaning, Challenges, Conditions for its Success Merits and Demerits Direct Democracy. सम्प्रभुता एवं बहुलवादी आलोचना। अधिकार, अर्थ, प्रकार, सिद्धान्त, कर्तव्य। स्वतत्रंता – अर्थ , प्रकार , सरंक्षण। समानता – अर्थ, प्रकार एवं स्वतत्रंता से संबंध। प्रजातंत्र – अर्थ, परिभाषा, चुनौतिया, सफलता के लिए आवश्यक शर्ते गुण, दोष। प्रत्यक्ष प्रजातंत्र	12
IV	Kinds of Government Unitary and Federal, Parliamentary and Presidential Dictatorship Organs of Government Executive, Legislature and Judiciary Theory of Separation of Power and Checks and Balances Constitution Meaning and Kinds Theories of Representation Electoral Process. शासन के प्रकार – एकात्मक व संघात्मक, संसदीय व अध्यक्षात्मक, निरकुंशतंत्र। शासन के अंग – कार्यपालिका, व्यवस्थापिका, न्यायपालिका, शक्ति पृथक्करण का सिद्धान्त व नियंत्रण संतुलन का सिद्धान्त। संविधान – अर्थ, प्रकार। प्रतिनिधित्व के सिद्धान्त एवं निर्वाचन प्रणालियाँ।	12
V	Public Welfare State Parking System : Meaning, Kinds, Process Pressure Groups: Meaning, kinds and Technique. Social Change : Meaning, Characteristically, Theories Feminis Nationalism लोक कल्याणकारी राज्य, दल पद्धति – अर्थ प्रकार पद्धति । दवाब समूह – अर्थ प्रकार, तकनीक। सामाजिक परिवर्तन – अर्थ विशेषताएँ सिद्धान्त। नारीवाद, राष्ट्रवाद।	12

Keywords/Tags- Political Science Meaning, State Element Saver eighty, Public Welfare.

Part C: **Learning** Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Text Books:

1. Andrew Haywood Political Theory, An Introduction.
2. Proof Anand Prakash Awasthi Indian Government and Political, Laxminarayan an Agrawal Agra.
3. Pant Gupta Jain Basis of Political Science Central Publication House Allahabad.

Reference Books:

1. O.P. Gaba an Introduction to Political Theory

अनुशंसित पुस्तकें

1. ओ.पी. गाबा, सम्कालीन राजनीतिक सिद्धान्त
2. ओ.पी. गाबा राजनीतिक सिद्धान्त की रुप रेखा
3. प्रोफेसर आनंद अवस्थी भारतीय शासन एवं राजनीति, लक्ष्मीनारायण अग्रवाल, आगरा
4. पंत गुप्ता जैन राजनीतिक शास्त्र के आधार सेंट्रल पब्लिकेशन हाउस, इलाहाबाद

Govt.J.Yoganandam Chhattisgarh College,
Raipur (C.G.)

Part A: Introduction					
Programme : Certificate Course		Class: BA	Semester-II	Year: 2022	Session: 2022-23
Subject: Political Science राजनीति विज्ञान					
1	**Course Code**	POL 201			
2	**Course Title** (Name of Paper)	**Indian Government and Politics** भारतीय शासन एवं राजनीति			
3	**Course Type**	Core Course			
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject Arts in class 12th.			
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: 1. Indian National Movement, Constitutional Development 2. Constitution of India, Fundamental Right 3. Union Executive 4. Indian Judiciary 5. State Legislature			
6	**Credit Value**	Theory:	Tutorial		
7	**Total Marks**	Max. Marks: 75	Min. Passing Marks: 25		
		Theory – 60	Tutorial - 15		

Part B: Content of the Course		
Total Period : 60		
Self Study : 1 National Movement 2 Fundamental Rights 3 Judiciary 4 Legislature		
Unit		No. of Lectures
I	Indian National Movement : First Independence Movement 1858 Non Cooperation Movement, Civil Disobedience Movement and Quit India Movement. Constitutional Development of India Govt. of India Act. Of 1858, 1909,1919 and 1935 भारतीय राष्ट्रीय आन्दोलन 1858 का प्रथम स्वतंत्रता संग्राम, असहयोग आन्दोलन, सविनय अवज्ञा आन्दोलन, भारत छोडो आन्दोलन। भारत का संविधानिक विकास – 1858, 1909, 1919 और 1935 का भारत शासन अधिनियम।	12
II	Constitution on India Characteristics, Dreamble, Sources, Federal System Fundamental Rights and Duties, Directive Principal of State Policy. Constitution Amendment Process. भारतीय संविधान – विशेषताएँ, प्रस्तावना, स्त्रोत। संधीय व्यवस्ता मौलिक अधिकार, मूल अधिकार, मूल कर्तव्य नीति निर्देशक तत्व संविधान संशोधन प्रक्रिया।	12
III	Union Executive : President, Vice President, Council of Minister and Prime Minister Union Legislature : Loksabha and Rajya Sabha Parliamentary Process. संधीय कार्यपालिका – राष्ट्रपति उपराष्ट्रपति मंत्रिपरिषद और प्रधानमंत्री संधीय व्यवस्थापिका – संसद लोकसभा और राज्य सभा। संसदीय प्रक्रिया।	12

IV	Union Judiciary : Supreme Court : Organization Jurisdiction, Judicial Review, Judicial Activism State Executive : Governor, Council of Minister and Chief Minister. संघीय न्यायपालिका – सर्वोच्च न्यायलय गठन क्षेत्राधिकार, न्यायिक पुनरालोकन, न्यायिक सक्रियतावाद। राज्य कार्यपालिका – राज्यपाल मंत्रिपरिषद् और मुख्यमंत्री।	12
V	State Legislature : Legislative Assembly and Legislative Council Election Commission and Election Reform National and Regional Parties Major Issues of Indian Politics Caste, Religion Language and Region, Pancharat Raj System. राज्य व्यवस्थालिका – विधानसभा एवं विधानपरिषद् । निर्वाचन आयोग व चुनाव सुधार। राष्ट्रीय व क्षेत्रीय दल। भारतीय राजनीति के प्रमुख मुद्दे – जाति, धर्म, भाषा और क्षेत्र। पंचायती राज व्यवस्था।	12

Keywords/Tags- National Movement, Fundamental Rights Judiciary Legislature.

Part C: Learning Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Text Books:

1. M.V. Pylee Constitutional History of India S. Chand.
2. D.D. Basu India Constitutions
3. Dr. RupaManglani Indian Government and Politics
4. Dr. Subhash Kashyap Our Parliament

Reference Books:

Suggested Digital Platforms Web. Links:

अनुशंसित पुस्तकें

1. डॉ. सुभाष कश्यप हमारी संसद
2. डॉ. रुपा मंगलानी भारतीय शासन एवं राजनीति
3. डी.डी. बसु भारतीय संविधान
4. एम.वी. पायली भारत का संविधानिक इतिहास

Govt. J. Yoganandam Chhattisgarh College

Raipur (C.G.)

Department of Chemistry

Learning Outcome based Curriculum Framework

(LOCF)

Under CBCS

For

B.Sc. with Chemistry
Undergraduate Programme
2022-23

(Based on UGC Document on LOCF CHEMISTRY 2020)

Distribution of different types of courses with their credits for B.Sc. Chemistry (Pass Course) (PCM, CBZ, CAZ, CBG)

Semester	Core Courses (CC) Note: 4 CC are available. All courses are compulsory 6 credits each (4Theory+ 2Practical)	Ability Enhancement Electives (AEC) (2x4=8) Select 2 of 4 credits each	Skill Enhancement Electives (SEC) (2x2=4)	Discipline Specific Elective (DSE) (2x6=12) Choose any 2 having 6 credit each	Generic Elective (GEC) (4x6=24) Note: 6 GEC are available. Choose any 4 having 6 credits each (PCM/PCB combination)		Credit hour load
1.	CHE101 + CHEP101	-	-	-	-		6
2.	CHE201 + CHEP201	-	-	-	-		6
3.	CH3101 + CHEP301	-	-	-	-		6
4.	CHE401 + CHEP401	-	-	-	-		6
5.	-	-	CHE511	CHE501 + CHEP501 CHE502 + CHEP502	-		8
6.	-	-	CHE611	CHE601 + CHEP601 CHE602 + CHEP602	-		8
Credits	24	-	4	12			40

Course Structure at a Glance
Core Courses (CC) of Chemistry

Sr. No.	Course Code	Name of the course	Type of course	L	T	P	Credits
1.	CHE101	Inorganic and Physical Chemistry I	Core course	4	-	-	4
	CHEP101	Inorganic and Physical Chemistry Practical	Practical	-	-	2	2
2.	CHE201	Organic and Physical Chemistry I	Core course	4	-	-	4
	CHEP201	Organic and Physical Chemistry Practical	Practical	-	-	2	2
3.	CHE301	Organic and Physical Chemistry II	Core course	4	-	-	4
	CHEP301	Organic and Physical Chemistry Practical	Practical	-	-	2	2
4.	CHE401	Inorganic and Physical Chemistry II	Core course	4	-	-	4
	CHEP401	Inorganic and Physical Chemistry Practical	Practical	-	-	2	2

Discipline Specific Elective (DSE) Course of Chemistry

Sr. No.	Course Code	Practical Code	Name of the course	Type of course	L	T	P	Credits
1.	CHE501	CHEP501	Organometallics and Bioinorganic chemistry	Discipline Specific Elective Course	4	-	2	6
2.	CHE502	CHEP502	Advanced Analytical Chemistry	Discipline Specific Elective Course	4	-	2	6
3.	CHE601	CHEP601	Organic Spectroscopy	Discipline Specific Elective Course	4	-	2	6
4.	CHE602	CHEP602	Biochemistry	Discipline Specific Elective Course	4	-	2	6

Skill Enhancement Courses (SEC) of Chemistry

Sr. No.	Course Code	Practical Code	Name of the course	Type of course	L/ P	T	P	Credits
1.	CHE511	-	Herbal Science & Technology	Skill Enhancement Courses	2	-	-	2
2.	CHE611	-	Computer Applications in Chemistry	Skill Enhancement Courses	2	-	-	2

Marking Scheme for B.Sc. Chemistry (Sem. I and Sem. II)

S.No.		Theory (External Exam)		Internal Assessment		Practical/Assignment		Total
		Max	Min	Max	Min	Max	Min	
1.	Practical Subject	60	20	10	-	30	10	100

Section-Wise Marks Distribution in Question Paper

Section	No. of Question	Marks in each Question	Marks
A (All Compulsory)	10	01	10
B (All Compulsory)	05	04	20
C (Optional)	05	06	30
Max. Marks			60

GOVT. J. YOGANANDAM CHHATTISGARH COLLEGE

(AUTONOMOUS COLLEGE)

Byron Bazar, RAIPUR (C.G.)

B.Sc. CHEMISTRY

Syllabus of Semester - I
Session : 2022-23

DEPARTMENT OF CHEMISTRY

Part A: Introduction				
Program: Certificate Course		Class: B.Sc. I Semester	Year: 2022	Session:2022-2023
1	Course Code	CHE101		
2	Course Title (Name of paper)	Inorganic and Physical Chemistry		
3	Course Type	Core course		
4	Pre-requisite (if any)	To study this course , a student must have had the subject chemistry in class 12th		
5	Course Learning . Outcomes (CLO)	At the end of this course, the students will be able 1. To predict the atomic structure, chemical bonding, and molecular geometry based on accepted models. 2. To understand atomic theory of matter, composition of atom. 3. To characterize bonding between atoms, molecules, interaction and energetic 4.To explain hybridization and shapes of atomic, molecular orbitals, bond parameters, bond- distances and energies. 5. To get insight into elements in periodic table; physical and chemical characteristics, periodicity. 6. To understanding Kinetic model of gas and its properties. 7. To explain behavior of real gases, its deviation from ideal behavior, equation of state, isotherm, and law of corresponding states. 8. To get insight into solids, lattice parameters – its calculation, application of symmetry, solid characteristics of simple salts		
6	Credit Value	Theory : 4		
7	Total Marks	Max. Marks: 60	Min. Marks : 20	

Part B: Content of the Course		
Total Periods : 60		
Self Study : 1. Electronic configuration of various elements in periodic table. 2. Predicting structure of molecules. 3. Hydrogen Bond and its effect on melting and boiling points. 4. States of matter. 5. Unit cell and lattice points.		
Unit	Topics	No. of Lectures
I	**Atomic Structure:** Bohr's theory, its limitations and atomic spectrum of hydrogen atom. Wave mechanics: de' Broglie equation, Heisenberg's Uncertainty Principle and its significance, Schrödinger's wave equation, significance of ψ and ψ^2. Quantum numbers and their significance. Normalized and orthogonal wave functions. Sign of wave functions. Radial and angular wave functions for hydrogen atom. Radial and angular distribution curves. Shapes of s, p, d and f orbitals. Contour boundary and probability diagrams. Pauli's Exclusion Principle, Hund's rule of maximum multiplicity, Aufbau's principle and its limitations, Variation of orbital energy with atomic number.	12

	Periodicity of Elements: s, p, d, f block elements, the long form of periodic table. Detailed discussion of the following properties of the elements, with reference to s and p-block. (a) Effective nuclear charge, shielding or screening effect, Slater rules, variation of effective nuclear charge in periodic table. (b) Atomic radii (van'der Waals) (c) Ionic and crystal radii. (d) Covalent radii (octahedral and tetrahedral) (e) Ionization enthalpy, Successive ionization enthalpies and factors affecting ionization energy. Applications of ionization enthalpy. (f) Electron gain enthalpy, trends of electron gain enthalpy. (g)Electronegativity, Pauling, Mullikan, Allred Rachow scales, electronegativity and bond order, partial charge, hybridization, group electronegativity. Sanderson electron density ratio.	**12**
	Chemical Bonding: **(i)Ionic bond:** General characteristics, types of ions, size effects, radius ratio rule and its limitations. Packing of ions in crystals. Born-Landé equation with derivation, expression for lattice energy. Madelung constant, Born-Haber cycle and its application, Solvation energy. **(ii) Covalent bond:** Lewis structure, Valence Shell Electron Pair Repulsion Theory (VSEPR), Shapes of simple molecules and ions containing lone-and bond-pairs of electrons multiple bonding, sigma and pi-bond approach, Valence Bond theory, (Heitler-London approach). Hybridization containing s, p and s, p, d atomic orbitals, shapes of hybrid orbitals, Molecular orbital theory. Molecular orbital diagrams of simple homonuclear and heteronuclear diatomic molecules, MO diagrams of simple tri- atomic molecules, e.g., N_2, O_2, C_2, B_2, F_2, CO, NO, and their ions; HCl, BeF_2, CO_2,Covalent character in ionic compounds, polarizing power and polarizability. Fajan rules, polarization. Ionic character in covalent compounds: Dipole moment. ionic character from dipole moment and electronegativities. **(iii) Metallic Bond**: Qualitative idea of free electron model, Semiconductors, Insulators.	**14**
	Gaseous state: Behavior of real gases: Deviations from ideal gas behavior, compressibility factor, and its variation with pressure for different gases. Causes of deviation from ideal behavior. van der Waals equation of state, its derivation and application in explaining real gas behaviour; Boyle temperature. Isotherms of real gases and their comparison with van der Waals isotherms, continuity of states, critical state, critical and van der Waals constants, law of corresponding states. **Kinetic molecular model of a gas:** Postulates and derivation of the kinetic gas equation; collision frequency; collision diameter; mean free path and viscosity of gases, including their temperature and pressure dependence, relation between mean free path and coefficient of viscosity, calculation of σ from η; variation of viscosity with temperature and pressure. Maxwell distribution and its use in evaluating molecular velocities (average, root mean square and most probable) and average kinetic energy, law of equipartition of energy, degrees of freedom and molecular basis of heat capacities.	**12**
	Solid state: Nature of the solid state, law of constancy of interfacial angles, law of rational indices, Miller indices, elementary ideas of symmetry, symmetry elements and symmetry operations, qualitative idea of point and space groups, seven crystal systems and fourteen Bravais lattices; X-ray diffraction, Bragg's law, a simple account of rotating crystal method and powder pattern method. Analysis of powder diffraction patterns of NaCl,	**10**

	CsCl and KCl. Various types of defects in crystals, Glasses and liquid crystals.	

Keywords: Atomic structure, Chemical bonding, Ionic bond, Covalent bond, Metallic bond, Gaseous state, Kinetic molecular model, Solid state.

Part C: Learning Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Text Books/Reference Books:

1.Lee, J. D. Concise Inorganic Chemistry, Wiley, 5th Edn .
2.Douglas, B.E., McDaniel, D.H., Alexander J.J., Concepts & Models of Inorganic Chemistry, (Third Edition) John Wiley & Sons,1999.
3.Atkins, P. W. and DePaula, J. Physical Chemistry, Tenth Edition, Oxford University Press, 2014.
4. Rodger, G. E. Inorganic and Solid State Chemistry, Cengage Learning, 2002.
5. Atkins, P. W. & Paula, J. de Atkin's Physical Chemistry 8th Ed., Oxford University Press (2006).
6. Ball, D. W. Physical Chemistry Thomson Press, India (2007).
7. Castellan, G. W. Physical Chemistry 4th Ed. Narosa (2004).
8. Mortimer, R. G. Physical Chemistry 3rd Ed. Elsevier: NOIDA, UP (2009).
9. G. M. Barrow, Tata McGraw Hill (Fifth Edition) (2007)
10. P. L. Soni. A Text book of Inorganic Chemistry, Sultan Chand & Sons.
11. B. R. Puri & L. Sharma. A Text book of Inorganic Chemistry, Shobhanlal Nagin Chand Co.
12.Puri, Sharma & Kalia. Principles of Inorganic Chemistry, Shobhanlal Nagin Chand Co.
13.Gurudeep Raj. A Text book of Inorganic Chemistry.
14.Madan, Malik, Tuli. Selected Topics in Inorganic Chemistry, S. Chand & Company.
15.A. K. De. A Text book of Inorganic Chemistry, New Age International.
16.O. P. Agarwal. Comprehensive Inorganic Chemistry.
17. Kapoor & Chopra. Inorganic Chemistry.
18. Navbodh Unified Chemistry, Navbodh Prakashan (2021).
19. Prabodh Chemistry, Prabodh and Company Pvt. Ltd. (2021).
20. Unified Chemistry, Shivlal Agrawal and Company (2021).

Suggested Digital Platforms Web links:

https://nptel.ac.in/courses/104103069
https://nptel.ac.in/courses/104105093
https://nptel.ac.in/courses/104104101

Approved by Board of Studies (Chemistry)

Chairperson/ H.O.D..... Subject Expert..... (University Nominee) Subject Expert..... Subject Expert..... Representative (Alumni & Student).....	Departmental members(Name and Signatures) 1..... 2..... 3..... 4.....

Part A: Introduction				
Program: **Certificate Course**		Class: **B.Sc. Semester I**	Year: **2022**	Session:**2022-23**
1.	**Course Code**	**CHEP101**		
2.	**Course Title**	Lab.1: **Inorganic and Physical Chemistry**		
3.	**Course Type**	**Practical**		
4.	**Pre-requisite (if any)**	To study this course our students must have had the subject chemistry in class +2 or equivalent		
5.	**Course Learning. Outcomes (CLO)**	At the end of this course, the students will be able to learn the following aspects of Chemistry • Titrimetric analysis • Surface tension measurement • pH metry • Buffer solutions • Viscosity measurement		
6.	**Credit Value**	Practical:**2**		
7.	**Total Marks**	**Max. Marks: 30**	**Min. Marks: 10**	

Part B: Content of the Course		
Total No. of Periods: 30		
LABORATORY COURSE		**No. of Periods**
Tentative list of Practical	**(A)Titrimetric Analysis** (i) Calibration and use of apparatus. (ii) Preparation of solutions of different Molarity/Normality of titrants. (iii) Use of primary and secondary standard solutions. **(B) Acid-Base Titrations** (i) Estimation of carbonate and hydroxide present together in mixture. (ii) Estimation of carbonate and bicarbonate present together in a mixture. (iii) Estimation of free alkali present in different soaps/detergents **(C) Oxidation-Reduction Titrimetry** (i) Standardization of $KMnO_4$ by oxalic acid solution. (ii) Estimation of Fe(II) and oxalic acid using standardized $KMnO_4$ solution. (iii) Estimation of oxalic acid and sodium oxalate in a given mixture. (iv) Estimation of Fe(II) with $K_2Cr_2O_7$ using internal (diphenylamine, anthranilic acid) and external indicator	**15**

	Physical chemistry **1. Surface tension measurements.** Determine the unknown concentration of given binary mixture with the help of stalagmometer. **2. pH metry** **a.** Effect on pH of addition of HCl/NaOH to solutions of acetic acid, sodium acetate and their mixtures. **b.** Preparation of buffer solutions of different pH i. Sodium acetate-acetic acid ii. Ammonium chloride-ammonium hydroxide **c.** pH metric titration of (i) strong acid vs. strong base, (ii) weak acid vs. strong base. **d.** Determination of dissociation constant of a weak acid. 3. Viscosity measurements using Ostwald's viscometer. a. Determination of viscosity of aqueous solutions of (i) polymer (ii) ethanol and (iii) sugar at room temperature. b. Viscosity of sucrose solution with the concentration of solute.	**15**
Keywords: Titrations, Surface tension, pH metry, Buffer solution.		

Part C:Learning Resource
Text Books, Reference Books, Other Resources
Suggested Readings : 1. Mendham, J., A. I. Vogel's Quantitative Chemical Analysis Sixth Edition, Pearson, 2009. 2. Svehala G. and Sivasankar I. B, Vogel's Qualitative Inorganic Analysis, Pearson, India, 2012 3. Khosla, B. D.; Garg, V. C. & Gulati, A. Senior Practical Physical Chemistry, R. Chand & Co.: New Delhi (2011). 4.Garland, C. W.; Nibler, J. W. & Shoemaker, D. P. Experiments in Physical Chemistry 8th Ed.; McGraw-Hill: New York (2003). 5. Halpern, A. M. & McBane, G. C. Experimental Physical Chemistry 3rd Ed.; W.H. Freeman & Co.: New York (2003). 6. Athawale V. D. and Mathur P. Experimental Physical Chemistry,, New Age International (2001) 7. Gurudeep Raj. Advanced Practical Inorganic Chemistry, Goel Publishing House. 8. Unified Practical Chemistry, Ram Prasad and Sons. **E- Learning Resources:** **Fundamental Chemistry related topics on SWAYAM platform and E-pathshala**
Part D:Assessment and Evaluation
Maximum Marks: 25

PRACTICAL EXAMINATION **B. Sc. – Semester I**	**05 Hrs.** **M.M. 30**
Two experiments are to be performed	
1. Two Titrations (Acid Bases and Redox).	**10 marks**
2. Any one physical experiment that can be completed in two hours including calculations.	**10 marks**
3. Viva	**06 marks**

Sessionals	04 marks
In case of Ex-Students two marks will be added to each of the experiments	

Approved by Board of Studies (Chemistry)

Chairperson/ H.O.D. for PBr Subject Expert Dr. A.K. Singh (University Nominee) Subject Expert Dr. S.K. Patle Subject Expert Dr Kishor K Tiwari Representative (Alumni & Student) —	Departmental members(Name and Signatures) 1. PBr 2. 3. 4. —

GOVT. J. YOGANANDAM CHHATTISGARH COLLEGE

(AUTONOMOUS COLLEGE)

Byron Bazar, RAIPUR (C.G.)

B.Sc. CHEMISTRY

Syllabus of Semester - II
Session : 2022-23

DEPARTMENT OF CHEMISTRY

Part A: Introduction				
Program: Certificate Course		Class: B.Sc. II Semester	Year: 2023	Session:2022-2023
1	Course Code	CHE201		
2	Course Title (Name of paper)	Organic and Physical Chemistry I		
3	Course Type	Core course		
4	Pre-requisite (if any)	To study this course , a student must have had the subject chemistry in class 12th		
5	Course Learning . Outcomes (CLO)	At the end of this course, the students will be able to: 1.Basic of organic molecules, structure, bonding, reactivity and reaction mechanisms. 2.Stereochemistry of organic molecules – conformation and configuration, asymmetric molecules and nomenclature. 3. Aromatic compounds and aromaticity, mechanism of aromatic reactions. 4.Mechanism of organic reactions (effect of nucleophile/leaving group, solvent), substitution vs. elimination. 5.Laws of thermodynamics and concepts. 6.Understanding the concept of system, variables, heat, work, and laws of thermodynamics. 7. Understanding the concept of heat of reactions and use of equations in calculations of bond energy, enthalpy, etc. 8. Dilute solution and its properties. 9.Liquid state and its physical properties related to temperature and pressure variation.		
6	Credit Value	Theory : 4		
7	Total Marks	Max. Marks: 60	Min. Marks: 20	

Part B: Content of the Course		
Total Periods : 60		
Self Study : 1. Classification and nomenclature 2. Resonance 3. Dipole moment		
Unit	Topics	No. of Lectures
I	**Basics of Organic Chemistry**: Organic Compounds: Hybridization, Shapes of molecules, Influence of hybridization on bond properties. Electronic Displacements: Inductive, electromeric, resonance and mesomeric effects, hyperconjugation and their applications. Homolytic and Heterolytic fission with suitable examples. Curly arrow rules, formal charges; Electrophiles and Nucleophiles; Nucleophlicity and basicity; Types, shape and relative stabilities of reaction intermediates (Carbocations, Carbanions, Free radicals and Carbenes). Organic reactions and their types : Addition, Elimination and Substitution reactions. **Stereochemistry**: Concept of asymmetry, Fischer Projection, Newmann and Sawhorse projection formulae and their interconversions; Geometrical isomerism: cis–trans and, syn-anti isomerism E/Z notations with C.I.P rules. Optical Isomerism: Optical Activity, Specific Rotation, Chirality/Asymmetry, Enantiomers, Molecules with two or more chiral-centres, Distereoisomers, meso structures, Racemic mixtures, Relative and absolute configuration: D/L and R/S designations.	12

□	**Chemistry of Aliphatic Hydrocarbons:** **A. Carbon-Carbon sigma bonds** **Chemistry of alkanes:** Formation of alkanes, Wurtz Reaction, Wurtz- Fittig Reactions, Free radical substitutions: Halogenation - relative reactivity and selectivity. **B. Carbon-Carbon pi-bonds** Formation of alkenes and alkynes by elimination reactions, Mechanism of E1, E2, E1cb reactions. Saytzeff and Hofmann eliminations. Reactions of alkenes: Electrophilic additions their mechanisms (Markownikoff/ Anti Markownikoff addition), mechanism of oxymercurationdemercuration, hydroboration-oxidation, ozonolysis, reduction (catalytic and chemical), syn and anti-hydroxylation (oxidation). 1, 2- and 1, 4- addition reactions in conjugated dienes and, DielsAlder reaction. Reactions of alkynes: Acidity, Electrophilic and Nucleophilic additions.	**12**
□	**A. Cycloalkanes and Conformational Analysis** : Cycloalkanes and stability, Baeyer strain theory, Conformation analysis, Energy diagrams of cyclohexane: Chair, Boat and Twist boat forms. **B. Aromatic Hydrocarbons**: Aromaticity: Huckel's rule, aromatic character of arenes, cyclic carbocations/carbanions and heterocyclic compounds with suitable examples. Electrophilic aromatic substitution: halogenation, nitration, sulphonation and Friedel-Craft's alkylation/acylation with their mechanism. Directing effects of substituent groups	**12**
□	**A. Liquid state:** Structure and physical properties of liquids; vapour pressure, surface tension, viscosity, and their dependence on temperature, Effect of addition of various solutes on surface tension, cleansing action of detergents. Structure of water. **B. Dilute solutions:** Dilute solutions; lowering of vapour pressure, Raoult's and Henry's Laws and their applications. Excess thermodynamic functions. Thermodynamic derivation using chemical potential to derive relations between the four colligative properties: [(i) relative lowering of vapour pressure, (ii) elevation of boiling point, (iii) Depression of freezing point, (iv) osmotic pressure] and amount of solute. Applications in calculating molar masses of normal, dissociated and associated solutes in solution.	**12**
□	**A. Introduction to thermodynamics:** Intensive and extensive variables; state and path functions; isolated, closed and open systems; zeroth law of thermodynamics. First law: Concept of heat, q, work, w, internal energy, U, and statement of first law; enthalpy, H, relation between heat capacities, calculations of q, w, U and H for reversible, irreversible and free expansion of gases (ideal and van der Waals) under isothermal and adiabatic conditions. **B. Thermochemistry:** Heats of reactions: standard states; enthalpy of formation of molecules and ions and enthalpy of combustion and its applications; calculation of bond energy, bond dissociation energy and resonance energy from thermochemical data, effect of temperature (Kirchhoff's equations), pressure on enthalpy of reactions.	**12**

Keywords:
Organic Chemistry, Stereochemistry, Aliphatic Hydrocarbons, Cycloalkanes, Liquid state, Dilute solutions, Thermodynamics, Thermochemistry

Part C: Learning Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Text Books/Reference Books:

1. Morrison, R. N. & Boyd, R. N. Organic Chemistry, 6th Edn., Dorling Kindersley (India) Pvt. Ltd. (Pearson Education).
2. Pine S. H. Organic Chemistry, Fifth Edition, McGraw Hill, (2007)
3. F. A. Carey, Organic Chemistry, Seventh Edition, Tata McGraw Hill (2008).
4. J. Clayden, N. Greeves, S. Warren, Organic Chemistry, 2nd Ed., (2012), Oxford Universitiy Press.
5. F. A. Carey, R. J. Sundberg, Advanced Organic Chemistry, Part A: Structure and mechanism, Kluwer Academic Publisher, (2000)
6. Atkins, P. W. & Paula, J. de Atkin's Physical Chemistry 8th Ed., Oxford University Press (2006).
7. Ball, D. W. Physical Chemistry Thomson Press, India (2007).
8. Castellan, G. W. Physical Chemistry 4th Ed. Narosa (2004).
9. Mortimer, R. G. Physical Chemistry 3rd Ed. Elsevier: NOIDA, UP (2009).
10. G. M. Barrow, Tata McGraw Hill (Fifth Edition) (2007)
11. Engel, T. and Reid, P. Physical Chemistry 3rd Ed., Prentice Hall, 2012.
12. McQuarrie, D. A. and Simon, J. D. Molecular Thermodynamics Viva Books, 2004.
13. Roy, B. N. Fundamentals of Classical and Statistical Thermodynamics Wiley, 2001
14. Commonly Asked Questions in Thermodynamics. CRC Press, 2011.
15. Levine, I .N. Physical Chemistry 6th Ed., Tata Mc Graw Hill, 2010.
16. Metz, C.R. 2000 solved problems in chemistry, Schaum Series, 2006
17. M. K. Jain. A Text book of Organic Chemistry, S. Chand & Company
18. Bhal & Bhal. A Text book of Organic Chemistry, Chand & Company
19. P. L. Soni. A Text book of Organic Chemistry, S. Chand & Company
20. Raj K. Bansal. Laboratory Manual of Organic Chemistry, New Age Publications
21. Jayaraman.S. Laboratory Manual of Organic Chemistry, Chand & Company.
22. Aggarwal. Chemistry of Natural products, Goel Publishing House Meerut.
23. K. K. Sharma. Organic Chemistry, Shobhanlal & Nagan Company.
24. Puri & Sharma. Organic Chemistry, Shobhanlal & Nagan Company.
25. Navbodh Unified Chemistry, Navbodh Prakashan (2021).
26. Prabodh Chemistry, Prabodh and Company Pvt. Ltd. (2021).
27. Unified Chemistry, Shivlal Agrawal and Company (2021).

Suggested Digital Platforms Web links:
https://archive.nptel.ac.in/courses/104/103/104103071/
https://onlinecourses.nptel.ac.in/noc21_cy31/preview

Approved by Board of Studies (Chemistry)

Chairperson/ H.O.D.....for PBr.....	Departmental members(Name and Signatures)
Subject Expert..Dr. A.K. Singh.....	1.....PBr.....
(University Nominee)	
Subject Expert....Mr. S.G. Patle.....	2.....
Subject Expert..Dr. Kishor K Tiwari	3.....
Representative	
(Alumni & Student).....	4.....

Part A: Introduction

Program: **Certificate Course**		Class: **B.Sc. Semester II**	Year: **2023**	Session:**2022-23**
1.	**Course Code**	**CHEP201**		
2.	**Course Title**	Lab. 2 : **Organic and Physical Chemistry**		
3.	**Course Type**	**Practical**		
4.	**Pre-requisite (if any)**	To Study this course our students must have had the subject chemistry in class B.Sc. I Year/ Certificate Course or equivalent.		
5.	**Course Learning. Outcomes (CLO)**	By the end of this course students will learn the following aspects of Laboratory exercises in Chemistry : • To analyze the given mixture for anions (acid radicals) and cations (basic radicals). • Titrations • Qualitative Analysis • Transition Temperature. • Thermochemistry. • Viscosity measurement • Surface Tension measurement		
6.	**Credit Value**	Practical: **2**		
7.	**Total Marks**	**Max. Marks: 30**	**Min. Marks: 10**	

Part B: Content of the Course

Total No. of Periods: 30

	LABORATORY COURSE	**No. of Periods**
Tentative list of practical	**ORGANIC CHEMISTRY** 1. Checking the calibration of the thermometer. 2. Purification of organic compounds by crystallization using the following solvents: a. Water b. Alcohol c. Alcohol-Water 3. Determination of functional group and the melting points of given organic compounds and unknown organic compounds (using Kjeldahl method and electrically heated melting point apparatus). 4. Effect of impurities on the melting point – mixed melting point of two unknown organic compounds. 5. Determination of boiling point of liquid compounds. (boiling point lower than and more than 100 °C by distillation and capillary method) 6.Chromatography a. Separation of a mixture of two amino acids by ascending and horizontal paper chromatography b. Separation of a mixture of two sugars by ascending paper chromatography c. Separation of pigments of green leaves (spinach etc).	**15**
	Physical chemistry 1. Study the equilibrium of at least one of the following reactions by the distribution method: (i) I_2 (aq) + I → I_3^- (aq) (ii) Cu^{2+}(aq) + nNH_3 → Cu(NH_3)n 2. Viscosity measurements using Ostwald's viscometer. Determine the concentration of given unknown binary mixture with the help of viscometer. 3. Surface tension measurements.	**15**

1.1.3

1.1.3	Class	Name of Paper	Unit	Topic	Activity
1	B.Sc. I	Practical Laboratory Course		1. Semimicro quantitative analysis 2. Acid-Base Titration 3. Redox Titration 4. Iodo/Iodimetric Titration 5. Determination of elements and functional group	1. Analysis of inorganic mixture containing two acids and two basic radicals. (2,3,4) Volumetric analysis by using burette, pipette,conical flask etc and to determine the concentration of unknown solution on the basis of neutralisation,redox, iodo and iodimetric reactions. 5.Analysis of organic compounds. **(Skill development)**
2	B.Sc. II	Practical Laboratory course		1. Qualitative semimicro analysis of mixtures containing five radicals. 2. Volumetric analysis: Determination/Estimation of commercial vinegar, alkali content, hardness of water, ferrous & ferric and copper. 3. Chromatographic separation- Paper chromatography 4. Qualitative analysis of organic compounds. 5. Preparation of organic compounds. 6. Physical experiments based on Transition Temperature, Thermo chemistry, Phase equilibrium, and molecular weight determination.	1.Analysis of unknown **(Skill development)**
3	B.Sc.III	Practical Laboratory		1. Gravimetric Analysis 2. Inorganic preparations	Analysis of concentration of

		course		3. Preparation of organic compounds 4. Conductometry and potentiometry 5. UV/Visible Spectroscopy	unknown compounds, synthesis. **(Skill development)**
4	**M.Sc.I**	**Lab Course I(Inorganic Chemistry)**		1.Quantitative analysis 2. Preparation of selected inorganic compounds 3.Qualitative analysis of mixtures containing 8 radicals by semi micro method. 4. Estimation 5. Any experiment in advanced nature or Experiments based on Green Chemistry.	**(Skill development)**
5	**M.Sc.I**	**Lab Course II(Physical Chemistry)**		1.Adsorption 2.Polarimetry 3. Chemical Kinetics 4.Solulutions 5.Electrochemistry	**(Skill development)**
6	**M.Sc.II**	**Lab Course III(Organic Chemistry)**		1.General methods of separation and purification of Organic 2. Distillation Techniques 3. Analysis of Organic Binary Mixture 5. Preparation of Organic Compounds: Single Step Preparation	**(Skill development)**
7	**M.Sc. II**	**Lab Course IV(Analytical Chemistry)**		1.Error Analytical and statistical data analysis 2. Volumetric Analysis 3. Solubility 4. Chromatography 5. Conductance of Electrolyte 6. Flame Photometry/AAS/FIA 7. Spectrophotometry 8.Nephlemetry / Turbidimetry 9. Miscellaneous	**(Skill development)**
8	**M.Sc. III**	**Lab Course V(Organic Chemistry)**		1.Multistep synthesis of organic compounds 2. Quantitative organic analysis 3. Estination of functional group 4. Extraction of organic compounds from natural	**(Skill development)**

9) M.Sc. III

				sources.	
9	M.Sc. III	Lab Course VI(Analytical Chemistry)		1.Spectrophotometric determinations 2. ph metry 3.Ppolarography 4.Flame photometric determinations 5.Refractometry 6.Separation and quantitative estimation of binary and ternary mistures 7.Some Advanced level sophisticated instrument based (FTIR, NMR, GC-MS, AAS, FLUORESCENCE SPECTROPHOTOMETER, TENSIOMETER etc)	**(Skill development)**
1	M.Sc. IV	Lab Course VII(Inorganic Chemistry)		1.Quantitative analysis 2.Analysis of alloys ores and minerals 3.Inorganic reaction mechanism 4.Preparation 5.Bio – inorganic chemistry	**(Skill development)**
1	M.Sc. IV	Lab Course VIII(Physical Chemistry)		1.Determination of partion coefficient for iodine between water and aq. KI 2. Determination of range and energy of beta particle. 3. To study the autocatalytic reaction. 4.Evaluation of equilibrium constants 5. Saponification of ethyl acetate. 6.Polarimetry 7.Conductometry 8.Potentiometry/pH metry	**(Skill development)**
1	M.Sc.IV	Paper I	I, II, III, IV	**Bio-inorganic Chemistry**	**Entrepreneurship /Employability**
1	M.Sc. IV	Paper II	I, II, III, IV	**Medicinal Chemistry**	**Entrepreneurship /Employability**
1	M.Sc.IV	Paper IV	I, II, III, IV	**Analytical Chemistry**	Body –fluid analysis, Drug analysis, Food analysis, Fuel analysis **(Entrepreneurship /Employability)**

विषय का नाम :- BOTANY

स्नातक परीक्षा

सत्र : 2022–2023

B.Sc.Part-I				
Class	Paper Title	Subject Code	Max. Marks	Min. Marks
Sem I	Theory - Microbial Diversity and Plant Pathology	BOT101	60	20
	Practical - Instrumentation & Microbial Technique	BOTP101	30	10
	Internal Assessment	-	10	-
Sem II	Theory - Archegoniateae and Plant Architecture	BOT201	60	20
	Practical - Archegoniate identification	BOTP201	30	10
	Internal Assessment	-	10	-

B.Sc.Part-II				
Paper	Paper Title	Subject Code	Max. Marks	Min. Marks
I	Plant Taxonomy, Economic Botany, Plant Anatomy And Embryology	BSCIIBO-A	50	17
II	Ecology And Plant Physiology	BSCIIBO-B	50	17
III	Practical	BSCIIBO-C	50	17

B.Sc.Part-III				
Paper	Paper Title	Subject Code	Max. Marks	Min. Marks
I	Analytical Technology Plant Pathology, Experimental Embryology, Elementary Biostatistics, Environmental pollution and Conservation	BSCIIIBO-A	50	17
II	Genetics, Molecular Biology, Biotechnology and Biochemistry	BSCIIIBO-B	50	17
III	Practical	BSCIIIBO-C	50	17

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Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	Class: **B.Sc. 1st Year**	Semester- 1st	**Year:** 2022	**Session: 2022-23**
Subject: **BOTANY**				

1	**Course Code**	BOT -101	
2	**Course Title** (Name of Paper)	**Microbial Diversity and Plant Pathology.**	
3	**Course Type**	Core Course	
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject Botany in class 12th.	
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: • Understand the Viruses, Bacteria, Phycology, Mycology and Plant pathology • Learn microbial techniques which will be beneficial for agriculture and industry. • Learn life cycles of selected genera of different groups • Understand etiology of plant diseases • Apply their knowledge in the crop fields to eradicate or avoid the diseases • Apply different biofertilizers to enhance productivity	
6	**Credit Value**	Theory : **4**	
7	**Total Marks**	Max. Marks: 60	Min. Passing Marks: 20

Part B: Content of the Course

Total Period : 60

Self Study : Introductory knowledge of
1. Instrument used in laboratory
2. Microorganism
3. Algae
4. Fungi
5. Plant diseases

Unit	Topic	No. of Lectures
I	**Microbial Techniques & instrumentation:** Microscopy – Light, phase contrast, scanning and transmission electron microscopy, staining techniques for light microscopy. Common equipment of microbiology lab and principle of their working – autoclave, oven, laminar air flow, centrifuge, colorimetry, spectrophotometry, electrophoresis, immobilization methods, fermentation and fermenters.	**12**

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II	**Microbial world:** Cell structure of Eukaryotic and prokaryotic cells, Gram positive and Gram-negative bacteria, Structure of bacteria; Bacterial Growth curve, factors affecting growth of microbes; Sporulation, reproduction, recombination in bacteria. Viruses, general characteristics, Structure of viruses, Bacteriophages and TMV; Lytic and Lysogenic cycles, viroid, Prions & mycoplasma, phytoplasma, actinomycetes and their economic uses. **Applied Microbiology:** Food fermentations and food produced by microbes, Production of antibiotics, enzymes, alcoholic beverages, Lactic acid and Acetic acid production. Antigen, antibody and production of monoclonal antibodies (Hybridoma techniques).	12
III	**Phycology:** General characteristic features, classification and range of thallus organization. Classification and life cycle of *–Volvox, Oedogonium, Chara, Vaucheria,Ectocarpus* and *Polysiphonia*. Economic importance of algae - Role of algae in soil fertility, algae as biofertilizer , blue green algae and nitrogen economy of soil; algae as biofuel	12
IV	**Mycology , Mushroom Cultivation, Lichenology & Mycorrhiza:** General characteristic features, Economic importance and Classification of Fungi. Distinguishing characters of Myxomycota: General characters of Mastigomycota: *Phytophthora* and *Albugo*, Zygomycota: *Rhizopus* and *Mucor*, Ascomycota: *Saccharomyces, Penicillium, Peziza*. Basidiomycota: *Ustilago, Puccinia, Agaricus*; Deuteromycota: *Colletotrichum, Fusarium, Alternaria*. Heterothallism, Physiological specialization, Heterokaryosis & Parasexuality, Mushroom cultivation-Button and Oyster mushroom General account of lichens, reproduction and significance; Mycorrhiza: ectomycorrhiza and endomycorrhiza and their significance.	12
V	**Plant Pathology:** Disease concept, Symptoms, Etiology, Primary and secondary inoculum, pathogenesis, Koch's Postulates. Mechanism of infection and predisposing factors. Disease reoccurrence, Defence mechanism : physical and biochemical, Disease Resistance, Systemic fungicides,Organomercurials and sulphur containing fungicides **Diseases and Control**: Symptoms, Causal organism, Disease cycle and Control measures of – Early & Late Blight of Potato, Damping of seedlings, False Smut of Rice/ Brown spot of rice, Black Stem Rust of Wheat, Alternaria spot and White rust of Crucifers, Red Rot of Sugarcane, Wilting of Arhar, Mosaic diseases on tobacco and cucumber, yellow vein mosaic of bhindi, Citrus Canker, Little leaf of brinjal; Disease management: Quarantine organizationand Integrated plant disease management, Biological control	12

Keywords/Tags- Microbial techniques, Mushroom cultivation, Mycology,Lichenology & Mycorrhiza, Plant diseases

Part C: **Learning** Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Text Books:

1. Microbiology Fundamental and Applications (hindi) (pb) 9. ISBN: 9788188826230 Edition: 03Year : 2016Author : Dr. Purohit SS , Dr. Deo Publisher : Student Edition Language : Hindi
2. Modern Microbiology (hindi) (hb) ISBN: 9788177543599Edition : 1Year : 2018Author : Dr. Purohit SS , Dr. Singh T Publisher : Agrobios (India)

3. Plant pathology by R.S. Mehrotra, Tata McGraw-Hill Publication

Reference Books:

1. Kumar, H.D. (1999). Introductory Phycology. Affiliated East-West. Press Pvt. Ltd. Delhi. 2nd edition.
2. Tortora, G.J., Funke, B.R., Case, C.L. (2010). Microbiology: An Introduction, Pearson Benjamin Cummings, U.S.A. 10th edition.
3. Sethi, I.K. and Walia, S.K. (2011). Text book of Fungi & Their Allies, MacMillan Publishers Pvt. Ltd., Delhi.
4. Aggarwal, S. K. 2009. Foundation Course in Biology, A one books Pvt. Ltd., New Delhi.
5. Aneja, K. R. 1993. Experiments in Microbiology, Pathology and Tissue Culture, Vishwa Prakashan, NewDelhi.
6. Annie Ragland, 2012. Algae and Bryophytes, Saras Publication, Kanyakumari, India.
7. Basu, A. N. 1993. Essentials of Plant Viruses, Vectors and Plant diseases, New Age International, New Delhi.
8. Chopra. G. L. 1984. A text book of Algae, Rastogi publications, Meerut,India.
9. Dubey, R. C. and Maheshwari. D.K. 2012. Practical Microbiology, S. Chand & Company, Pvt. Ltd., NewDelhi.
10. Fritsch, R. E. 1977. Structure and Reproduction of Algae, Cambridge University Press, London.
11. Sharma, P.D. (2011). Plant Pathology. Meerut, U.P.: Rastogi Publication.
12. Webster, J., Weber, R. (2007). Introduction to Fungi, 3rd edition. Cambridge, U.K.: Cambridge University Press..
13. Pandey B.P. 2001. College Botany Volume 1, S Chand & Company Pvt.Ltd, New Delhi.
14. Pandey. B.P. 2014 Modern Practical Botany, (Vol-I) S. Chand and Company Pvt. Ltd., New Delhi.
15. .Pelzar, 1963. Microbiology, Tata Mc Graw Hill, New Delhi
16. Rangaswamy, G. 2009, Disease of Crop Plants in India, Prientice Hall of India, New Delhi.

Suggested Digital Platforms Web.links:

i. https://indianculture.gov.in/rarebooks/economic-botany-india
ii. https://www.infinityfoundation.com/mandala/t_es/t_es_tiwar_botany_frameset.htm
iii. https://www.researchgate.net/publication/335715457_Ancient_Indian_rishi's_Sages_knowledge_of_botany_and_medicinal_plants_since_Vedic_period_was_much_older_than_the_period_of_Theophrastus_A_case_study_who_was_the_actual_father_of_botany
iv. https://www.scribd.com/presentation/81269920/Botany-of-Ancient-India
v. https://insa.nic.in/writereaddata/UpLoadedFiles/IJHS/Vol17_2_17_PKBhattacharyya.pdf

Suggested equivalent online courses:

1. https://indianculture.gov.in/rarebooks/economic-botany-india
2. https://community.plantae.org/tags/mooc futurelearn.com/courses/teaching-biology-inspiring-students-with-plants-in-science
3. https://www.coursera.org/courses?query=plants
4. http://egyankosh.ac.in/handle/123456789/53530
5. https://www.classcentral.com/tag/microbiology
6. https://www.edx.org/learn/microbiology
7. https://www.mooc-list.com/tags/microbiology
8. https://www.udemy.com/topic/microbiology/ https://ucmp.berkeley.edu/bacteria/bacteria.html
9. https://www.livescience.com/53272-what-is-a-virus.html
10. https://gclambathach.in/lms/Economic%20importance%20of%20Algae.pdf
11. https://www.slideshare.net/sardar1109/algae-notes-1
12. https://www.onlinebiologynotes.com/algae-general-characteristics-classification/
13. https://www.sciencedirect.com/topics/immunology-and-microbiology/fungus
14. https://ucmp.berkeley.edu/fungi/fungi.html
15. https://agrimoon.com/wp-content/uploads/Mashroom-culture.pdf
16. http://ecoursesonline.iasri.res.in/mod/page/view.php?id=11293
17. http://www.hillagric.ac.in/edu/coa/ppath/lect/plpath111/Lect.%201%20%20Introduction-Pl%20Path%20111.pdf
18. http://www.jnkvv.org/PDF/11042020102651plant_pathology.pdf
19. https://www.apsnet.org/edcenter/disimpactmngmnt/topc/EpidemiologyTemporal/Pages/ManagementStrategies.aspx
20. https://learn.saylor.org/course/view.php?id=23&sectionid=6821
21. https://www.sciencedirect.com/topics/earth-and-planetary-sciences/microscopy
22. http://physics.fe.uni-lj.si/students/predavanja/Microscopy_Kulkarni.pdf

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23.https://lipidnanostructuresgroup.weebly.com/
24.https://zoology4civilservices.wordpress.com/2016/06/18/65/
25.https://microbenotes.com/laminar-flow-hood

Part D: Assessment and Evaluation		
Suggested Continuous Evaluation Methods: Maximum Marks: 60 Continuous Comprehensive Evaluation (CCE): ----Marks University/Autonomous Exam (U/AE): 60Marks		
Internal Assessment: Continuous Comprehensive Evaluation (CCE)	Class Test Assignment/Presentation	Total Marks: ....
External Assessment: University Exam (UE) **Time:** 3 Hours	Section (A): Three Very Short Questions (150 Words Each) Section (B): Four Short Questions (200 Words Each) Section (C): Two Long Questions (1500 Words Each)	10 20 30 Total **Marks: 60**

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	Class: **B.Sc. 1st Year**	Semester- 1st	**Year:** 2022	**Session: 2022-23**

Subject:

BOTANY

1	**Course Code**	**BOTP 101**
2	**Course Title** (Name of Paper)	**Instrumentation and Microbial Techniques**
3	**Course Type**	Core Course
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject Botany in class 12th.
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: • Understand the instruments, techniques and good lab practices for working in a microbiology laboratory. • Develop skills for identifying microbes and using them for Industrial, Agriculture and Environment purposes. • Practical skills in the field and laboratory experiments in Microbiology & Pathology. • learn to identify Algae, Lichens and plant pathogens along with their Symbiotic and Parasitic associations. • Can initiate his own Plant & Seed Diagnostic Clinic Can start own enterprise on microbial product
6	**Credit Value**	Practical : 2
7	**Total Marks**	Max. Marks: 30 / Min. Passing Marks: 10

Part B: Content of the Course

Total Period : 30

Tentative Practical List	**Topic * (Minimum Any three from each unit depending on facilities and syllabus.**

NSTRUMENTS & TECHNIQUES: 1. Laboratory safety and good laboratory practices.

2. Principles and application of Laboratory instruments-microscope, incubator, autoclave, centrifuge, Laminar air flow, filtration unit, shaker, pH meter.

3. Buffer preparation & titration

4. Cleaning and Sterilization of glassware

5. Preparation of media- PDA and NAM

6. Inoculation and culturing of Fungi and bacteria

BACTERIAL IDENTIFICATION: 1. Isolation of bacteria.

2. Staining techniques: Gram's, staining

MYCOLOGY:

1. Study/ Slide preparation and . Staining of fungi. *Rhizopus, Saccharomyces, Penicillium, Peziza, Ustilago, Puccinia; Fusarium. Alternaria. Agaricus*:
2. . Lichens: crustose, foliose and fruticose specimens.

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	PHYCOLOGY: 1.Study / Slide preparation and Staining of algae – *Volvox, Oedogonium* and *Chara; Vaucheria;Ectocarpus Polysiphonia* **EXPERIMENTAL PLANT PATHOLOGY** Isolation of pathogen from diseased leaf. Identification: Pathological specimens of Brown spot of rice, Bacterial blight of rice, Loose smut of wheat, red rot of sugar cane, Tikka disease of ground nut, Slides of uredial, telial, pycnial & aecial stages of *Puccinia*, Few viral and bacterial plant diseases. like- Leaf curl of Papaya, Citrus canker Yellow vein mosaic of **PRACTICALS IN APPLIED MICROBIOLOGY** 1. Isolation of rhizosphere to non rhizosphere population of bacteria. 2. Isolation of phyllosphere microflora. 3. Alcohol production from grapes in anaerobic condition 4. Isolation of lactic acid bacteria from curd. 5. Enzyme production and assay – catalase, protease and amylase.

Part C: **Learning** Resources
Text Books. Reference Books, Other Resources

Suggested Readings:

1. Practical Botany (Part I) ISBN #:81-301-0008-8 Sunil D Purohit, Gotam K Kukda & Anamika Singhvi Edition:2013 Apex Publishing House Durga Nursery Road, Udaipur, Rajasthan (bilingual).
2. Pandey S.K. (2012). Quick Concept of Botany. Publisher LAP LAMBERT Academic Publishing GmbH & Co. KG, Germany (ISBN: 978-3-8484-3104-5).
3. Dubey, R. C. and Maheshwari. D.K. 2012. Practical Microbiology, S. Chand & Company, Pvt. Ltd., New Delhi.
4. Pandey. B.P. 2014 Modern Practical Botany, (Vol-I) S. Chand and Company Pvt. Ltd., New Delhi.

Suggested Digital Platforms Web.links:

E-learning Resources:

5. https://community.plantae.org/tags/mooc
6. futurelearn.com/courses/teaching-biology-inspiring-students-with-plants-in-science
7. https://microbiologysociety.org/publication/education-outreach-resources/basic-practical-microbiology-a-manual.html
8. https://microbiologyonline.org/file/7926d7789d8a2f7b2075109f68c3175e.pdf
9. http://allaboutalgae.com/benefits/
10. https://repository.cimmyt.org/xmlui/bitstream/handle/10883/3219/64331.pdf
11. https://www.mooc-list.com/tags/microbiology
12. http://www.agrifs.ir/sites/default/files/A%20text%20book%20of%20practical%20botany%201%20%7BAshok%20Bendre%7D%20%5B8
13. 171339239%5D%20%281984%29.pdf
14. https://www.coursera.org/courses?query=plants
15. http://egyankosh.ac.in/handle/123456789/53530
16. https://www.classcentral.com/tag/microbiology
17. https://www.edx.org/learn/microbiology
18. https://www.mooc-list.com/tags/microbiology
19. https://www.udemy.com/topic/microbiology/

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Part D: Assessment and Evaluation		
Suggested Continuous Evaluation Methods: Maximum Marks:30 Continuous Comprehensive Evaluation (CCE): ----Marks University/Autonomous Exam (U/AE): 30 Marks		
Internal Assessment: Continuous Comprehensive Evaluation (CCE)	Class Test Assignment/Presentation	Total Marks: 30

Practical Scheme

Time - 3hours

Maximum Marks - 30

1. Instrumentation technique ---------- 4
2. Bacterial staining ---------- 3
3. Algae / Fungi ---------- 4
4. Plant diseases ---------- 3
5. Spotting (1-5) ---------- 10
6. Viva voce ---------- 3
7. Sessional ---------- 3

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	Class: **B. Sc. 1st Year**	Semester- 2nd	**Year:** 2022	**Session: 2022-23**

Subject:	**BOTANY**		
1	**Course Code**	**BOT - 201**	
2	**Course Title** (Name of Paper)	**Archegoniateae and Plant Architecture**	
3	**Course Type**	Core Course	
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject Botany in class 12th.	
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: • Understand the General characteristics and affinities of Bryophytes, Pteridophytes and Gymnosperms • Phylogenetic relationships with the help of Palaeobotanical studies • Learn morphology, and- flower architecture of angiosperms	
6	**Credit Value**	Theory: 4	
7	**Total Marks**	Max. Marks: 60	Min. Passing Marks: 20

Part B: Content of the Course

Total Period : 60

Self Study : Introductory knowledge of
1. Bryophyta
2. Pteridophyta
3. Gymnosperms
4. Fossils
5. Basic morphology of a plant

Unit	Topic	No. of Lectures
I	**Introduction to Archegoniates & Bryophytes:** Unique features of archegoniates, Bryophytes: General characteristic features and Affinities, adaptations to land habit, Range of thallus organization. Classification (up to family), morphology, anatomy and reproduction *of Riccia, Marchantia , Anthoceros* and *Sphagnum*. (Developmental details not to be included). Economic importance of bryophytes.	12

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II	**Pteridophytes:** General characteristic features and affinities, Classification (up to family) with examples, Heterospory and seed habit, stelar evolution, economic importance of Pteridophytes, Morphology, anatomy and life cycle of *Psilotum, Lycopodium, Selaginella, Equisetum, Pteris* and *Marselia*.	12
III	**Gymnosperms:** Classification and distribution of gymnosperms; Salient features of Cycadales, Ginkgoales, Coniferales and Gnetales, their examples, structure and reproduction; economic importance, Morphology, anatomy and life cycle of *Cycas, Pinus*and *Ephedra*.	12
IV	**Palaeobotany:** General account, Geological time scale; Brief account of process of fossilization & types of fossils and their study techniques; Fossil plants: *Rhynia, Williamsonia, Cycadeoidea.* Contribution of Prof. BirbalSahni	12
V	**Angiosperm Morphology (Stem, Roots, Leaves, Flowers and Inflorescence:** Morphology and modifications of root; Stem, leaf and bud. Types of inflorescences; flowers, flower parts, fruits and types of placentation; Definition and types of seeds.	12

Keywords/Tags- Archaegoniatae, Bryophyta, *Rhynia,* Heterospory, Angiosperms, Fossil

Part C: **Learning** Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Text Books:

Reference Books:

1. Gangulee H. S. and K. Kar 1992. College Botany Vol. I and II. (New Central Book Agency)
2. Bhatnagar, S.P. and Moitra, A. (1996). Gymnosperms. New Age International (P) Ltd Publishers, New Delhi, India.
3. Pandey S.K. (2012). Quick Concept of Botany. Publisher LAP LAMBERT Academic Publishing GmbH & Co. KG, Germany (ISBN: 978-3-8484-3104-5).
4. Parihar, N.S. (1991). An introduction to Embryophyta. Vol. I. Bryophyta. Central Book Depot, Allahabad.
5. Rashid A (1999) An Introduction to Pteridophyta, Vikas Publishing House Pvt. Ltd. New Delhi.
6. Sharma OP (1990) Textbook of Pteridophyta. MacMillan India Ltd. Delhi.
7. Vashishtha BR, Sinha AK and Kumar A (2010) Botany for Degree Students – Pteridophyta, S. Chand and Company,
8. Vashishtha BR, Sinha AK and Kumar A (2010) Botany for Degree Students – Gymnosperms, S. Chand and
9. Parihar NS (1976) Biology and Morphology of Pteridophytes. Central Book Depot.
10. Bhatnagar SP (1996) Gymnosperms, New Age International Publisher.
11. Pandey BP (2010) College Botany Vol II S. Chand and Company, New Delhi

Suggested Digital Platforms Web.links:

1. https://www.anbg.gov.au/bryophyte/what-is-bryophyte.
2. https://pteridoportal.org/portal/index.php

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3. https://www.conifers.org/zz/gymnosperms.php
4. http://www.mobot.org/MOBOT/research/APweb/
5. https://milneorchid.weebly.com/plant-id-for-beginners
6. http://webapp1.dlib.indiana.edu/inauthors/view?docId=VAC0868&doc.view=print
7. https://palynology.org/
8. http://www2.estrellamountain.edu/faculty/farabee/biobk/Biobookflowers.html
9. https://www.sciencelearn.org.nz/resources/100-plant-reproduction
10. https://palaeobotany.org

Part D: Assessment and Evaluation		
Suggested Continuous Evaluation Methods: Maximum Marks: 60 Continuous Comprehensive Evaluation (CCE): ----Marks University/Autonomous Exam (U/AE): 60 Marks		
Internal Assessment: Continuous Comprehensive Evaluation (CCE)	Class Test Assignment/Presentation	Total Marks: ....
External Assessment: University Exam (UE) Time: 3 Hours	Section (A): Three Very Short Questions 150 Words Each) Section (B): Four Short Questions (200 Words Each) Section (C): Two Long Questions 1500 Words Each)	10 20 30 Total **Marks: 60**

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Govt.J.Yoganandam Chhattisgarh College,
Raipur (C.G.)

Part A: Introduction				
gramme : Certificate urse	Class: **B.Sc 1st Year**	Semester- 2nd Sem	**Year:** 2022	**Session: 2022-23**

Subject: **BOTANY**

1	**Course Code**	**BOTP 201**
2	**Course Title** (Name of Paper)	Archegoniate identification
3	**Course Type**	Core Course
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject Botany in class 12th.
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: • Understand the habit, morphological and anatomical characteristics of Bryophytes, Pteridophytes and Gymnosperms • Learn about Fossils. Palaeobotany is the study of fossil plants. • Learn morphology and modification of root, stem and leaf. and- flower architecture of angiosperms
	Credit Value	Practical : 2
	Total Marks	Max. Marks: 30 / Min. Passing Marks: 10

Part B: Content of the Course

Total Period : 30

Tentative Practical List

Topic * (Minimum Any three from each unit depending on facilities and syllabus.

Bryophyta:
Study of morphology and anatomy of :
1. *Riccia*
2. *Marchantia*
3. *Anthoceros*
4. *Sphagnum*

Pteridophyta:
Study of morphology and anatomy of :
1. *Lycopodium*
2. *Selaginella*
3. *Equisetum*
4. *Pteris*
5. *Marselia*

Gymnosperm:
Study of morphology and anatomy of :
1. *Cycas*
2. *Pinus*
3. *Ephedra*

27/07/2022

Part C: **Learning** Resources
Text Books. Reference Books, Other Resources

Suggested Readings:

1. Practical Botany (Part I) ISBN #:81-301-0008-8 Sunil D Purohit, Gotam K Kukda & Anamika Singhvi Edition:2013 Apex Publishing House Durga Nursery Road, Udaipur, Rajasthan (bilingual).
2. Pandey S.K. (2012). Quick Concept of Botany. Publisher LAP LAMBERT Academic Publishing GmbH & Co. KG, Germany (ISBN: 978-3-8484-3104-5).
3. Dubey, R. C. and Maheshwari. D.K. 2012. Practical Microbiology, S. Chand & Company, Pvt. Ltd., New Delhi.
4. Pandey. B.P. 2014 Modern Practical Botany, (Vol-I) S. Chand and Company Pvt. Ltd., New Delhi.

Suggested Digital Platforms Web.links:

E-learning Resources:

5. https://community.plantae.org/tags/mooc
6. futurelearn.com/courses/teaching-biology-inspiring-students-with-plants-in-science
7. https://microbiologysociety.org/publication/education-outreach-resources/basic-practical-microbiology-a-manual.html
8. https://microbiologyonline.org/file/7926d7789d8a2f7b2075109f68c3175e.pdf
9. http://allaboutalgae.com/benefits/
10. https://repository.cimmyt.org/xmlui/bitstream/handle/10883/3219/64331.pdf
11. https://www.mooc-list.com/tags/microbiology
12. http://www.agrifs.ir/sites/default/files/A%20text%20book%20of%20practical%20botany%201%20%7BAshok%20Bendre%7D%20%5B8
13. 171339239%5D%20%281984%29.pdf
14. https://www.coursera.org/courses?query=plants
15. http://egyankosh.ac.in/handle/123456789/53530

Part D: **Assessment and Evaluation**		
Suggested Continuous Evaluation Methods: Maximum Marks: Continuous Comprehensive Evaluation (CCE): ----Marks University/Autonomous Exam (U/AE): 30 Marks		
Internal Assessment: Continuous Comprehensive Evaluation (CCE)	Class Test Assignment/Presentation	Total Marks: 30

Practical Scheme

me - 3hours

Maximum Marks - 30

Bryophyta / Pteridophyta ----------	4
Gymnospers ----------	5
Angiosperms ----------	5
Spotting (1-5) ----------	10
Viva voce ----------	3
Sessional ----------	3

1.1.1, 1.1.2, 1.2.1

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Part A: Introduction				
Programme BSC	Class: B.sc.	Semester- I	**Year:** 2022	**Session: 2022-2023**
Subject: Anthropology				

1	**Core Course Code**	BSCIAN-A
2	**Course Code**	BSC I AN-A
3	**Course Title** (Name of Paper)	INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY
4	**Course Type**	Core Course
5	**Pre-requisite (if any)**	To study this course, a student must have had the subject ..... in class 12th.
6	**Course Learning Outcomes (CLO)**	The course will enable the students to: 1. The students will learn about various theories related to human evolution and variation. They will learn about history of Physical Anthropology and its applications. 2. They will learn about relationship between non-human and human primates. They will learn about the origin of hominoid group, distribution and characteristics of extinct hominids and the process of hominization. 3. Some basic knowledge of genetics is also imparted through this paper. 4. From the practical components they will understand Craniometric measurements, study various parts of human body which is useful in studying evolutionary changes in modern humans.
6	**Credit Value**	Theory: 04 Practical 02
7	**Total Marks**	Max. Marks: Min. Passing Marks:

Part B: Content of the Course

Total Period : 60

Unit		No. of Lectures
I	• History, meaning, aims, scope of Physical Anthropology and its applications. • Organic evolution : Meaning and evidences of organic evolution. • Theories of Organic evolution : Lamarckism, Neo-Lamarckism, Darwinism, Neo-Darwinism and synthetic theory.	12

23.7.22

1.1.1, 1.1.2, 1.2.1

II	• Man's position in animal kingdom. • Classification and characteristics of living primates (Prosimi and Anthropoidea). • Comparative anatomy and behavior of human and non-human primates.	12
III	• Miocene Hominoids : Ramapithecus. • Pleistocene Hominoids : Australopithecus, Homo erectus (Pithecanthropus & Sinanthropus), Neanderthal, Homo sapiens (Cromagnon, Grimaldi and Chancelade).	12
IV	• Concept of Race : Meaning and definition. • Race Formation. • Criteria of racial classification (Anthroscopic, Anthropometric and genetical traits). • UNESCO statement, Racism. • Major races of the world and their distribution (Caucasoid, Negroid & Mongoloid)	12
V	• Mendelism. • Chromosome : Types and morphology of human chromosome. • Structure of DNA & RNA. • Types of inheritance : Autosomal (Dominant and recessive), Sex linked (Dominant and recessive).	12

Keywords/Tags-

Part C: **Learning** Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Reference Books:

1. Ashley, Montague, Concept of Race.
2. Barnouw, V. 1979, Anthropology : A General Introduction, The Dorsey Press Illinois.
3. Das, B.M. 1985, Outlines of Physical Anthropology, Kitab Mahal, New Delhi.
4. Harrison, G.A., Weiner, J.S. Tanner, J.M. and Barnicot, N.A. Human Biology : An Introduction to Human Evolution, Variation and Growth, Clarenden Press, Oxford.
5. Hooton, E.A. Up from the Ape, The Macmillan Co., New York.
6. M. Ember and Ember. Anthropology
7. Sarkar S.S. Aboriginal races of India.
8. Sarkar, R.M. 1976, Fundamentals of Physical Anthropology, Blackie (India).

1.1.1., 1.1.2., 1.2.1,

9. Shrivastav, A.R.N. 1994, Sharirik Manav Vigyan (in Hindi), Gyandeep Prakashan, Allabhabad.
10. Shukla, B.R.K. and Rastogi, S. Physical Anthropology and Human Genetics : An Introduction, Palka Prakashan, Delhi.ettner-Janusch, J. Origins of Man, Wiley Eastern Pvt. Ltd. New Delhi.

Suggested Digital Platforms Web.links:
e-PGPathshala , Shodh Ganga,Gyan Kosh

Programme BSC		Class: B.sc.	Semester- I	**Year:** 2022	**Session: 2022-2023**
Subject: Anthropology					
1	**Course Code**	BSCIAN-B			
2	**Course Title** (Name of Paper)	**PRACTICAL IN HUMAN ANATOMY**			
3	**Course Type**	Practical			
4	**Course Learning Outcomes** (CLO)	The objective of this practical course is to introduce the students with the human skeletal system and its importance.			
5	**Credit Value**	Practical 02			
6	**Total Marks**	Max. Marks:	Min. Passing Marks:		

I. Craniology

- Norma Verticalis
- Norma Occipitalis
- Norma Lateralis
- Norma Frontalis

II. Sex determining features of Human Skull

III. Osteology

- Bones of Upper Limb:-

  Clavicle, Scapula, Humerus, Radius, Ulna

- Bones of the Lower Limb :-

  Femur, Tibia, Fibula and Pelvis

Part C : Learning Resources

1. Ashley, Montague, Concept of Race.
2. Barnouw, V. 1979, Anthropology : A General Introduction, The Dorsey Press Illinois.
3. Das, B.M. 1985, Outlines of Physical Anthropology, Kitab Mahal, New Delhi.
4. Harrison, G.A., Weiner, J.S. Tanner, J.M. and Barnicot, N.A. Human Biology : An Introduction to Human Evolution, Variation and Growth, Clarenden Press, Oxford.
5. Hooton, E.A. Up from the Ape, The Macmillan Co., New York.

1.1.1, 1.1.2, 1.2.1

6. Sarkar, R.M. 1976, Fundamentals of Physical Anthropology, Blackie (India).
Shrivastav, A.R.N. 1994, Sharirik Manav Vigyan (in Hindi), Gyandeep Prakashan, Allabhabad.
8. Shukla, B.R.K. and Rastogi, S. Physical Anthropology and Human Genetics : An Introduction, Palka Prakashan, Delhi.ettner-Janusch, J. Origins of Man, Wiley Eastern Pvt. Ltd. New Delhi.

Part D : Assessment and Evaluation

Autonomous Exam. (AE) : Max. Marks : 50 Marks

1.1.1, 1.1.2, 1.2.1

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Part A: Introduction				
Programme : BSC	Class: B.sc.	Semester- II	**Year:** 2022	**Session: 2022-2023**
Subject: Anthropology				

1	**Course Code**	BSCIIAN-A
2	**Course Title** (Name of Paper)	INTRODUCTION TO SOCIAL – CULTURAL ANTHROPOLOGY
3	**Course Type**	Core Course
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject ..... in class 12th.
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: 1. The Students will learn about the scope and relevance of Social-Cultural Anthropology in relationship with other branches of anthropology. 2. The Students will learn about concept of society, culture and social institutions. 3. They will also learn about economic social and political organization. 4. Understand and describe basic concepts and methods of social-cultural Anthropology, along with its past and future. 5. Comparative study of culture and society of different ethnic groups.
6	**Credit Value**	Theory: 04 Practical 02
7	**Total Marks**	Max. Marks: 50 Min. Passing Marks: 17

Part B: Content of the Course

Total Period : 60

Unit		No. of Lectures
I	• Meaning, aims and scope of social-cultural Anthropology. • Social Anthropology : Definition, scope and importance. • Linguistics Anthropology : Definition, Structure and Linguistic Family • Relation of Social-Cultural Anthropology with sociology, history, economics and demography.	12

II	• Culture : Definition, characteristics and components of culture. • Society : Definition, characteristics, importance and types of society. • Community : Definition, characteristics, importance. • Institution : Definition, characteristics, importance.	12
III	• Marriage : Meaning, aims and types of marriage, marriage rules, preferential marriage and ways of acquiring mates. • Family : Definition, Characteristics, types and function of family. • Kinship : Definition, types, kinship terminology, degree of kinship. kinship usage.	12
IV	• Religion : Definition, Characteristics and function. • Magic : Definition, types and elements of magic. • Custom : Definition, origins, and role.	12
V	• Economic organization: Characteristics of simple economy, stages of economic development. Barter and ceremonial exchange. • Political organization: State and stateless society, primitive law and justice. •	12
Keywords/Tags-		

Part C: **Learning** Resources
Text Books. Reference Books, Other Resources
Suggested Readings: Reference Books: 1. A. N. Sharma. Bharatiya Manav Vigyan. 2. Davis, K. 1981. Human society, New Delhi: Surfeit publications. 3. Durkheim, E. 2013. The rules of sociological method and selected texts on sociology and its method edited by StevenLuke (Second Edition). Palgrave Macmillan. 20-49, 78-100. 4. Ember, C.R. et. al. 2011. Anthropology, New Delhi, Dorling Kindersley. 5. Long, G. 1956. Concept of Status and role in Anthropology. Their definition and use. The American catholic sociological Review.. 6. Makhan Jha : Samajik Manav Vigyan. 7. Nadeem Hasnain. Indian Anthropology. 8. Vandana Sharma & Ramesh Choubey : Samajik Sanskritik Manav Vigyan.

9. Vaid N K and Ashok Pradhan, 2007, Samajik Manav Shastra, CG Rajya Hindi Granth Academy.

Suggested Digital Platforms Web.links:
e-PGPathshala , Shodh Ganga,Gyan Kosh

Programme : BSC	Class: B.sc.	Semester- II	**Year:** 2022	**Session: 2022-2023**
Subject: Anthropology				

1	**Course Code**	BSCIIAN- B
2	**Course Title** (Name of Paper)	**PRACTICAL IN CRANIOMETRY**
3	**Course Type**	Practical
4	**Course Learning Outcomes** (CLO)	: The objective of this practical course is to introduce the student with the human skeleton system and its importance and to learn anthropometric techniques used in living and non-living human for assessment of ethnic variation. This will be helpful to make student skill-full for further anthropological study and research.
5	**Credit Value**	Practical 02
6	**Total Marks**	Max. Marks: 50 / Min. Passing Marks: 17

Part – I : Craniometry :

- Maximum Cranial length. ✓
- Maximum Cranial Breadth. ✓
- Maximum frontal Breadth.
- Bizygomatic Breadth. ✓
- Nasal Height. ✓
- Nasal Breadth ✓
- Minimum frontal breadth ✓
- Bimaxillary Breadth. ✓
- Biorbital Breadth
- Length of foramen magnum.

Part – II Girth Measurement:

- Horizontal circumference of Skull ✓
- Mid Sagittal arc
- Frontal arc
- Parietal arc
- Occipital arc

Part – III Chord Measurement

- Front Chord
- Parietal Chord
- Occipital Chord

1.1.1, 1.1.2, 1.2.1

Part – IV : Craniometric indices

- Cranial Index
- Nasal Index

Part –V : Research Tools in Anthropology

Part C : Learning Resources

1. Das, B.M. 2013. Outlines of Physical Anthropology. Allahabad : Kitab Mahal.
2. Jurmain, R., Kilgore, L., Trevathan, W., Ciochon, R.L. 2012. Introduction to Physical Anthropology. Oxford & IBH Publishing Co. Molnar, Stephen. 1975. Human Variations : Race Types and Ethnic Groups. London : Routledge.
3. Seth, P.K. and Seth, S. 1986. The Primates. New Delhi : Northern Book Centre.
4. Singh, I.P. and Bhasin, M.K. 1989. Anthropometry : A Laboratory Manual on Biological Anthropology. Delhi : Kamla-Raj Enterprises.

Part D : Assessment and Evaluation

Autonomous Exam. (AE) : Max. Marks : 50 Marks

SCHEME AND SYLLABUS UNDER CHOICE BASED CREDIT SYSTEM
B.Sc. Certificate course Sub---ZOOLOGY First Semester

Part: A

Program: Certificate course		Class: B.Sc. I semester	Year: 2022	Session 2022-2023
1	Course code	ZOO -101		
2	Course Title	CORE COURSE		
	Paper	I		
3	Paper Title	**Animal Diversity- Non-Chordate and Cell Biology**		
	Course type	Theory		
4	Pre requisite	To Studythis course, as students must have had the subject zoology in class 12th		
	Course Objective	The course provides a detailed insight into basic concepts of the structure and organization of invertebrate animals , cellular structure and function. . The course also provides an insight into the life processes at the cellular levels. It also gives an account of the complex regulatory mechanisms that control cell function		
5	Course learning Out comes (CLO)	After successfully completing this course, the students will be able to: • Understand the structure and organization of invertebrate animals. • Explain modifications in various functions of animals during transition from invertebrates to vertebrates. • Identify invertebrates and homology, analogy and modifications of mouthparts in relation to feeding habits, Respiration,Excretion,Locomotion.. • Understand the functioning of nucleus and extra nuclear organelles and understand the intricate cellular mechanisms involved. • Acquire the detailed knowledge of different pathways related to cell signalling and apoptosis.		
6	Credit value	Theory-4	Practical-2	
7	Total Marks	Max. Marks: 50	Minimum. Passing Marks: 17	

1-1-2

Part : B Content of Course Total Lectures-60		
Unit	Content	No. Of Lectures
Unit - I	**Diversity in pseudocoelomate and coelomate Non chordates** Concept of diploblastic and triploblastic organization, symmetrie;,Body cavities; protostomes and deuterostomes. Acoelomates,Pseudocoelomates and coelomates General characters and classification up to class- Protozoa-Detailed study: **Paramecium** Porifera-Detailed study: **Sycon** ,and canal system in sponges Coelentera-Detailed study - Type study of **Obelia**, polymorphism and division of labour Coral and coral reef Formation. ~~Phylum Platyhelminthes- Detailed study **Liver fluke**~~	12
Unit-2	**Diversity in acoelomate to coelomate** General characters and classification up to classes- Phylum Platyhelminthes- Detailed study **Liver fluke** Phylum Nemathelminthes-**Nematodes and Disease** Phlum Annelida- Detailed study -earth worm **(Phetetima)** Phylum Artropoda – Detailed study **:prawn**	12
Unit-3	**Diversity in acoelomate to coelomate** General characters and classification up to classes Phylum Mollusca- Detailed study:**Pila** Phylum Echinodermata- **And**.their affinity to Chordates External Features and Water vascular system of**Asterias** Phylum Hemichorda- External structure of **Balanoglusus** and Structure and significances of **Tornaria larva**	12
Unit-4	**The structure and organelles of prokaryotic and eukaryotic cells.** General structure of prokaryotes and eukaryotes, Structure and Function of **Plasma membrane ,Endoplasmic reticulum, Ribosome, Golgi apparatus, lysosome, Mitochondria**	12
Unit-5	**Cell cycle, cell signaling** **Structure of Nucleus**: Nuclear membrane -structure and fuction Chromatin: Euchromatin and Hetrochromatin and packaging (nucleosome) cell division- mitosis and meiosis. Cell division check points and their regulation Role of growth factors. Mutations in the genes that regulate cell cycle and division and their role in causing cancer. Programmed cell death (Apoptosis).	

	Cell regulation and Cell signaling: Signaling molecules and their receptors.Functions of cell surface receptors. Regulation of signaling pathways.	

Part : C Learning Resource
Part : B

- **Text books, Reference Books, Other Resources-** Invertebrate Structure and function:-

  E.J W. Barrigton English language Book society UK.

- Invertebrate Zoology:

  Robert Barnes IVth Edition Holt Saunders International Edition Japan.

- The Cambrige Natural History Vol 1 - 9.
  S F Harmer, A.E. Shipley.

  Todays & To morrows Book agency, N Delhi India.

- A Text book of Zoology Invertebrate:

  Parker Hasvell, Marshall & Williams. A ITBS Publishing & Distributers, Delhi

- The Invertebrates Vol. 1 - 9

Libbic Henrietta Hyman, McGraw Hill Book Company **Text books, Reference Books, Other Resources-**

MOLECULAR CELL BIOLOGY
Lodish M. Baltimore, Scientific American books
ESSENTIALS OF CELL & MOLECULAR BIOLOGY
Roberties&Roberties, Halt Saunders International Edition.
CELL & MOLECULAR CELL BIOLOGY
Gerald Karp, Willey & Sons Co.
MEDICAL CELL BIOLOGY
Flickinger E.J. Brown J.C. Halt Saunders International Edition.
CELL BIOLOGY
Powar C.B. Himalaya Publishing House

Content of Course Total Lectures-60		
Unit	Content	No. Of Lectures
Unit - I	**Comparative anatomy of integument, digestive and circulatory system** Structure of integument from fishes to mammals with an account on epidermal and dermal derivatives and their functional significance. • Comparative anatomy of pelvic and pectoral girdles from fishes (cartilaginous and bony) to mammals. • Comparative anatomy of pelvic and pectoral girdles from fishes (cartilaginous and bony) to mammals • Structure and diversity of **alimentary canal** and digestive glands in chordates • Evolution of **aortic arches** and their significance. • Structure and evolution **of heart** in vertebrate	12
Unit-2	**Comparative anatomy of respiratory Excretory and Brain** Comparative anatomy and functional significance **of Gills in fishes lungs** amphibians, reptiles, and mammals and air sacs in birds • Types and development of **kidneys** and their ducts • Nephron- structure, types and their function • Structurel and function of **brain and spinal cord** in various classes of chordates	12
Unit-3	Physiology of Digestion and Respiration, • Physiology of Digestion- Mechanism of digestion and absorption • Physiology of Respiration- Respiratory pigments, Role of Haemoglobin, Mechanism and regulation of breathing, Transport of Gases and Internal Respiration	12
Unit-4	**Physiology of cardiac,Excretion, Muscles** • Physiology of cardiac cycle and its Regulation • Physiology of Excretion • Physiology of muscles contraction- Mechanism and Regulation of muscle contraction	12
Unit-5	**Physiology of nerve conduction and Receptor Physiology** • Physiology of nerve conduction- Neurons and membrane excitation, Action potentials, Synapses and neurotransmitters Sensory Transduction • Auditory receptors • Chemoreceptor: taste and smell • Vision and Photoreception • Thermoregulation	12

SCHEME AND SYLLABUS UNDER CHOICE BASED CREDIT SYSTEM B.Sc.
Sub---__ZOOLOGY Second Semester

Part: A

Program: Certificate course		Class: B.Sc. II[nd]Semester	Year: 2022	Session 2022-2023
1	Course code	ZOO-201		
2	Course Title	**CORE COURSE**		
	Paper	**II**		
3	Paper Title	**Comparative an anatomy and Physiology of vertebrates**		
	Course type	Theory		
4	Pre requisite	To Study this course, as students must have had the subject zoology in class 12[th]		
	Course Objective	• The course offers insight into the physiology of chordates while giving an account of their anatomy.		
5	Course learning Out comes (CLO)	After successfully completing this course, the students will be able to: • Have an enhanced knowledge and appreciation of mammalian physiology; • Understand the functions of important physiological systems including the cardio-respiratory, renal, reproductive and metabolic systems; • Understand how these separate systems interact to yield integrated physiological responses to challenges such as exercise, fasting and ascent to high altitude, and how they can sometimes fail; be able to perform, analyse and report on experiments and observations in physiology; Have an enhanced knowledge and appreciation of mammalian physiology.		
6	Credit value	4		
7	Total Marks	Max. Marks: 50		Minimum. Passing Marks: 17

Part : C

- **Learning Rsource Vertebrate life** :— William N. Ferland, F. Harvey pough, Tom J Gode, John B. Heiser
- Collier MacNillem International edition
- **Chordate morphology** :—Malcom Jollie
- Reinhold Publishing Corporation NewYork
- **Chordate —Structure &Function** :- Arnold G. Khage, B.E. Fry Johanson
- Mc Millan Publishing Co. INC. NewYork
- **Comparative Animal Physiology** :- Orosser
- Satish Book Enterprises, Agra
- **The Vertebrate Body** :- Alfred Sherwood Romer
- Vakils, Feffer& Simons Publications Ltd.

- **Text books, Reference Books, Other Resources-** Tortora, G.J. and Derrickson, B.H. (2009) Principles of Anatomy and Physiology (12th edition) John Wiley and Sons, Inc.
- Widmaier, E.P., Raff, H. and Strang, K.T. (2008) Vander's Human Physiology (9th edition) McGraw Hill.
- Guyton, A.C. and Hall, J.E. (2011) Textbook of Medical Physiology (12th edition) Harcourt Asia Pvt. Ltd/ W.B. Saunders Company.
- Marieb, E. (1998) Human Anatomy and Physiology (4th edition) Addison-Wesley.

Kesar, S. and Vashisht, N. (2007) Experimental Physiology, Heritage Publishers.

- Turner, C. D. (1971) General Endocrinology, Pub- Saunders Toppan.

Name of Experiment	Nuumber
practical Scheme	
Major Dissection	4 6
Minor Dissection	4 4
Slide Preparation	2
Spotting	8 8
Cytological Preparation	3 2
Viva	4 4
Project Work	5 6

Part: B
Total Number of Period-30
Practical Work
• Identification, classification and study of distinguishing features of important representatives from various groups (Protozoa to Hemichordata). • Study of permanent prepared slides (from Protozoa to Hemichordata). • Alternative method of • Major Dissection; Reproductive, Excretory, nervous and of Earthworm. • nervous systems and appendages of Prawn • Nervous system of Pila. • Minor Dissection - mouth parts of cockroach House Fly and Mosquito • ,Hastate Plat of prawn, Radula of pila. • Slide Preparation of -Setae, Septal Nephridia ospheridiumAnd ctenidium. • Permanent preparations of different materials to be provided for study.

	• Wonder invertebrates • Study of prokaryotic and eukaryotic cell types with the help of chart, slide and video. • Study of Mitosis cell division in Onion root tip. • • Study of types of tissue through permanent slides: epithelial, connective, muscular, nervous etc.		
7	Total Marks	Max. Marks: 50	Minimum. Passing Marks: 17

Practical Part: A				
Program: Certificate course		Class: B.Sc. I[st] Semester	Year: 2022	Session 2022-2023
1	Course code	ZOOP101		
2	Course Title	Lab-Course-1		
3	Paper Title	Practical		
	Course type	CC-1 Practical		
4	Pre requisite	To Study this course, as students must have had the subject zoology in class 12[th]		
5	Course learning Out comes (CLO)			

6	Credit value	2	
7	Total Marks	Max. Marks: **25**	Minimum. Passing-**9** Marks: 17

Program: Certificate course		Class: B.Sc. II[nd.] Semester	Year: 2022	Session 2022-2023
1	Course code	ZOOP201		
2	Course Title	Lab-Course-2		
3	Paper Title	Practical		
	Course type	CC-2 Practical		
4	Pre requisite	To Study this course, as students must have had the subject zoology in class 12[th]		
5	Course learning Out comes (CLO)			
6	Credit value	2		
7	Total Marks	Max. Marks: 50	Minimum. Passing Marks: 17	

Total Number of Period-30			
Practical Work			
• Identification, classification and study of distinguishing features of important representatives, museum specimens and slides (Chordates) • Comparative studies of Integument ,reproductive system with the help of Chart and Model • Alternative method of dissection- cranial nerves of frog, Varanus , fowl and rabbit. • Osteology of Amphibia, Aves, Reptile and Mammals. • Temporary mount of external scales in fishes (cycloid, placoid, ganoid, ctenoid). • Comparative study of brain with the help of models and charts. • Comparative study of urinogenital system with the help of models and charts. • Comparative study of heart with the help of models and charts. • Estimation of RBC, haemoglobin, , blood group and Rh factor blood clotting time. Preparation of haemin crystals • *Determine the blood pressure of man.* • ***Demonstration of action of salivary amylase*** • Determination of urea, glucose and ketone bodies in urine. • Demonstration of osmosis. • *Permanent preparation of slides and its identification.* •			
7	Total Marks	Max. Marks: 50	Minimum. Passing Marks: 17

Name of Experiment	Number
Spotting	6 10
Comparative Study	#5
Haematological Experiment	~~4~~ #4
Physiological Experiment	4
Viva	3
Sessional	4

B.Sc. 1-st Sem

Part A: Introduction				
Programme : Certificate Course:	**Class:** B.Sc.	**Semester-** I	**Year:** 2022	**Session:** 2022-23
Subject: Physics				

1	**Course Code**	PHY101	
2	**Course Title** (Name of Paper)	**MECHANICS**	
3	**Course Type**	**Core Course**	
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject Physics in class 12'th.	
5	**Course Learning Outcomes** (CLO)	**The course will enable the students to understand:** 1. Vector and scalar multiplication algebraically. 2. Different derivatives of a vector with respect to a parameter. 3. To solve first and second order differential equation. 4. Newton's laws of motion, inertial reference frames. 5. Parameters defining the motion of mechanical system and equation of motion. 6. Concept of work, energy, centers of mass and conservation principles. 7. Newton's Law of Gravitation, Motion of a particle in a central force field, Rocketry motion. 8. Satellite motion, Basic idea of global positioning system (GPS). 9. Simple harmonic motion. 10. Basic concepts of special theory of relativity.	
6	**Credit Value**	Theory: 4	Practical 2
7	**Total Marks**	Max. Marks: 50	Min. Passing Marks: 17

Part B: Content of the Course

Self Study:

1. Scalar and vector products.
2. Newton's Laws of motion. Frames of reference (Cartesian, Cylindrical, and spherical).
3. Work and energy
4. Newton's Law of Gravitation.
5. Simple harmonic motion.
6. Hooke's law.

Total Period : 60

Unit		No. of Lectures
I	**Vectors:** Vector algebra. Scalar and vector products. Derivatives of a vector with respect to a parameter.	**4 Lectures**
	Ordinary Differential Equations: 1st order homogeneous differential equations. 2nd order homogeneous differential equations with constant coefficients.	**6 Lectures**
II	**Laws of Motion:** Frames of reference (Cartesian, Cylindrical, and spherical). Newton's Laws of motion. Motion in a uniform field. Components of velocities and acceleration in different system (Cartesian, Cylindrical, and spherical) Dynamics of a system of particles. Centre of Mass. Equation of motion.	**10 Lectures**
III	**Momentum and Energy:** Work and energy. Conservation of momentum. Conservation of energy. Motion of rockets. Single stage and multistage rockets	**6 Lectures**
	Rotational Motion: Angular velocity and angular momentum. Torque. Conservation of angular momentum.	**5 Lectures**

IV	**Gravitation:** Newton's Law of Gravitation. Motion of a particle in a central force field (motion is in a plane, angular momentum is conserved, areal velocity is constant). Kepler's Laws (statement only). Satellite in circular orbit and applications. Geosynchronous orbits. Weightlessness. Basic idea of global positioning system (GPS). **Oscillations:** Simple harmonic motion. Differential equation of SHM and its solutions. Kinetic and Potential Energy, Total Energy and their time averages. Damped oscillations.	**8 Lectures** **6 Lectures**
V	**Elasticity:** Hooke's law - Stress-strain diagram - Elastic moduli-Relation between elastic constants - Poisson's Ratio-Expression for Poisson's ratio in terms of elastic constants - Work done in stretching and work done in twisting a wire - Twisting couple on a cylinder - Determination of Rigidity modulus by static torsion – Torsional pendulum-Determination of Rigidity modulus and moment of inertia - Y, η and □□by Searles method **Special Theory of Relativity:** Constancy of speed of light. Postulates of Special Theory of Relativity. Length contraction. Time dilation. Relativistic addition of velocities.	**8 Lectures** **7 Lectures**

Keywords/Tags-

Vector , Scalar, differential equations, Newton's Laws, momentum, Work and energy, Gravitation, Kepler's Laws, GPS, oscillations, Elastic moduli, Relativity

PHYSICS LAB: MECHANICS

Code: PHYP101

Students have to perform ant ten experiments in this semester

60 Lectures

1. Measurements of length (or diameter) using vernier calliper, screw gauge and travelling microscope.
2. To determine the Height of a Building using a Sextant.
3. To determine the Moment of Inertia of a Flywheel.
4. To determine the young's modulus of a bar by method of bending.
5. To determine the Modulus of Rigidity of a Wire by Maxwell's needle.
6. To determine the modulus of rigidity by inertia table
7. To determine g by Bar Pendulum.
8. To determine g by Kater's Pendulum.
9. To verify the theorems of parallel and perpendicular axis

10. To study the Motion of a Spring and calculate (a) Spring Constant (b) Value of g 11. To study bifilar suspension. 12. To determine surface tension by various methods (Jaeger's method and capillary rise method).

Total Marks	Max. Marks: 30	Min. Passing Marks: 10

Part C: **Learning** Resources
Text Books. Reference Books, Other Resources

Reference Books (Theory):

1. University Physics. F.W. Sears, M.W. Zemansky and H.D. Young, 13/e, 1986. Addison-Wesley
2. Mechanics Berkeley Physics, v.1: Charles Kittel, et. al. 2007, Tata McGraw-Hill.
3. Physics – Resnick, Halliday & Walker 9/e, 2010, Wiley
4. University Physics, Ronald Lane Reese, 2003, Thomson Brooks/Cole.
5. Engineering Mechanics, Basudeb Bhattacharya, 2nd edn., 2015, Oxford University Press .

Reference Books (Practicals):

1. Advanced Practical Physics for students, B.L.Flint and H.T.Worsnop, 1971, Asia
2. Publishing House.
3. Advanced level Physics Practicals, Michael Nelson and Jon M. Ogborn, 4th
4. Edition, reprinted 1985, Heinemann Educational Publishers.
5. Engineering Practical Physics, S.Panigrahi & B.Mallick,2015, Cengage Learning India Pvt. Ltd.
6. A Text Book of Practical Physics, Indu Prakash and Ramakrishna, 11th Edition, 2011, Kitab Mahal, New Delhi.

Suggested Digital Platforms Web links:

1. https://epathshala.nic.in/
2. https://swayam.gov.in/
3. https://www.swayamprabha.gov.in/

B.Sc. 2-nd Sem

Part A: Introduction				
Program :	*Class:*	*Semester-*	*Year:*	*Session:*
Certificate Course	*B.Sc.*	*II*	*2022*	*2022-23*

Subject: Physics

1	**Course Code**	PHY201
2	**Course Title** (Name of Paper)	**ELECTRICITY AND MAGNETISM**
3	**Course Type**	Core Course
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject Physics in class 12'th.
5	**Course Learning Outcomes** (CLO)	**The course will enable the students to:** 1. Understand the basic idea about electrostatic field and electric flux. 2. Learn the problem related to electric field. 3. Use electric potential equation to solve the problems. 4. Learn problem related to dipole. Understand Gauss's theorem. 5. Understand the sources of capacitance. 6. Understand the concept and properties of electrostatic field. 7. Understand about magnetism. Biot-Savart's law & its applications. 8. Understand about different magnetic materials. 9. Understand about Electromagnetic waves.
6	**Credit Value**	Theory: 4 Practical: 2
7	**Total Marks**	Max. Marks: 50 Min. Passing Marks: 17

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Part B: Content of the Course		
Self Study: 1. Scalar and Vector product. Vector Integration 2. Electric flux 3. Capacitance. 4. Electric dipole, 5. Faraday's laws.		
Total Period: 60		
Unit		No. of Lectures
I	**Vector Analysis**: Review of vector algebra (Scalar and Vector product), gradient, divergence, Curl and their significance, Vector Integration, Line, surface and volume integrals of Vector fields, Gauss-divergence theorem and Stoke's theorem of vectors (Statement only)..	**12 Lectures**
II	**Electrostatics:** Electrostatic Field, electric flux, Gauss's theorem of electrostatics. Applications of Gauss theorem- Electric field due to point charge, infinite line of charge, uniformly charged spherical shell and solid sphere, plane charged sheet, charged conductor. Electric potential as line integral of electric field, potential due to a point charge.	**11 Lectures**
III	Electric dipole, uniformly charged spherical shell and solid sphere. Calculation of electric field from potential. Capacitance of an isolated spherical conductor. Parallel plate, spherical and cylindrical condenser. Energy per unit volume in electrostatic field. Dielectric medium, Polarisation, Displacement vector. Gauss's theorem in dielectrics. Parallel plate capacitor completely filled with dielectric.	**11 Lectures**
IV	Magnetism: Magnetostatics: Biot-Savart's law & its applications- straight conductor, circular coil, solenoid carrying current. Divergence and curl of magnetic field. Magnetic vector potential. Ampere's circuital law. Magnetic properties of materials: Magnetic intensity, magnetic induction, permeability, magnetic susceptibility. Brief introduction of dia-, para- and ferro-magnetic materials.	**10 Lectures**

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V	**Electromagnetic Induction:** Faraday's laws of electromagnetic induction, Lenz's law, self and mutual inductance, L of single coil, M of two coils. Energy stored in magnetic field.	**6 Lectures**
	Maxwell`s equations and Electromagnetic wave propagation: Equation of continuity of current, Displacement current, Maxwell's equations, Poynting vector, energy density in electromagnetic field, electromagnetic wave propagation through vacuum and isotropic dielectric medium, transverse nature of EM waves, polarization.	**10 Lectures**

Keywords/Tags-

Vector Integration, Electrostatic Field, Electric flux, Gauss theorem, Condenser, Gauss's theorem, Magnetism, Electromagnetic Induction, Maxwell`s equations, Electromagnetic wave, Poynting vector

PHYSICS LAB-: ELECTRICITY AND MAGNETISM

Code: PHYP201

Students have to perform ant ten experiments in this semester

60 Lectures

1. To use a Multimeter for measuring (a) Resistances, (b) AC and DC Voltages, (c).
2. DC Current, and (d) checking electrical fuses.
3. Ballistic Galvanometer:
   - (i) Measurement of charge and current sensitivity
   - (ii) Measurement of CDR
   - (iii) Determine a high resistance by Leakage Method.
   - (iv) To determine Self Inductance of a Coil by Rayleigh's Method.
4. To compare capacitances using De'Sauty's bridge.
5. Measurement of field strength B and its variation in a Solenoid (Determine dB/dx).
6. To study the Characteristics of a Series RC Circuit.
7. To study a series LCR circuit and determine its (a) Resonant Frequency, (b) Quality Factor.
8. To study a parallel LCR circuit and determine its (a) Anti-resonant frequency and (b) Quality factor Q.
9. To determine a Low Resistance by Carey Foster's Bridge.
10. To verify the Thevenin and Norton theorem.
11. To verify the Superposition, and Maximum Power Transfer Theorem.
12. To study impedance and power factor of LCR circuit.
13. To study earth's magnetic field H using magnetometer.

Total Marks	Max. Marks: 30	Min. Passing Marks: 10

29.7.22

Reject

Govt.J.Yoganandam Chhattisgarh College, Raipur (C.G.)

Part A: Introduction				
Programme : Certificate Course	Class: B.A./B.Sc. Part 1	Semester- First	Year: 2022	Session: 2022-23

Subject: Mathematics

1	**Course Code**	MAT 101		
2	**Course Title** (Name of Paper)	Calculus		
3	**Course Type**	Core Course		
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject Mathematics in class 12 th.		
5	**Course Learning Outcomes** (CLO)	This course will enable the students to: i) Calculate the limit and examine the continuity and understand the geometrical interpretation of differentiability. ii) Understand the consequences of various mean value theorems. iii) Draw curves in Cartesian and polar coordinate systems. iv) Understand conceptual variations while advancing from one variable to several variables in calculus. v) Inter-relationship amongst the line integral, double and triple integral formulations.		
6	**Credit Value**	Theory: 05	Tutorial 01	
7	**Total Marks- 100**	Theory	Max. Marks: 80	Min. Passing Marks: 27
		Internal	Max. Marks: 10	Min. Passing Marks : Not required
		Tutorial	Max. Marks: 10	Min. Passing Marks : 03

Part B: Content of the Course

Total Period : 90

Self Study :

1. Concept of limit, continuity and differentiability
2. Successive Differentiation
3. Tangent and normal of curve
4. Concepts of Cartesian, polar and parametric coordinates
5. Methods of integrations

I	**Continuity and Differentiability** Limit of function at point and continuity of a real valued function. Differentiability and its geometrical interpretation. Rolle's theorem, Lagrange's mean value theorem, Cauchy's mean value theorem and their geometrical interpretation. Darboux's theorem.	14
II	**Expansion of Functions and Curvature** Successive differentiation and Leibnitz theorem. Maclaurin's and Taylor's theorems for expansion of a function. Taylor's theorem in finite form with Lagrange, Cauchy and Roche-Schlomilch forms of remainder. Curvature.	14
III	**Asymptotes and Curve Tracing** Asymptotes of general algebraic curves, Parallel asymptotes. Asymptotes parallel to axes, asymptotes, concavity and convexity. Points of inflection. Tangents at origin. Multiple points. Position and nature of double points. Tracing of Cartesian, polar and parametric curves. Envelopes and Evolutes.	14
IV	**Functions of Several Variables** Limit, continuity and first order partial derivatives. Higher order partial derivatives. Change of variables. Euler's theorem for homogeneous functions. Taylor's theorem. Total differentiation and Jacobians. Maxima and Minima.	14
V	**Double and Triple Integrals** Double integration over rectangular and non-rectangular regions. Double integrals in polar co-ordinates. Triple integral over a parallelepiped and solid regions. Volume by triple integral. Change of order of double integration.	14

Recommended Topic Sequences: Continuity and Differentiability, Expansion of Functions, Curvature, Asymptotes and Curve Tracing, Envelopes and Evolutes, Functions of Several Variables, Double and Triple Integrals

2-6-1 (1)

Govt.J.Yoganandam Chhattisgarh College,

Raipur (C.G.)

Part A: Introduction

Programme :	Class:	Semester-	Year:	Session:
Certificate Course	B.A./B.Sc. Part 1	Second	2022	2022-23

Subject: Mathematics Session – 2022-23

1	**Course Code**	MAT 201		
2	**Course Title** (Name of Paper)	Algebra		
3	**Course Type**	Core Course		
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject Mathematics in class 12 th.		
5	**Course Learning Outcomes** (CLO)	This course will enable the students to: i) Employ De Moivre's theorem in a number of applications to solve numerical problems. ii) Learn about the fundamental concepts of groups, subgroups, normal subgroups, isomorphism theorems, cyclic and permutation groups. iii) Recognize consistent and inconsistent systems of linear equations by the row echelon form of the augmented matrix, using rank. iv) Find eigen values and corresponding eigen vectors for a square matrix. v) Understand real vector spaces, subspaces, basis, dimension and their properties.		
6	**Credit Value**	Theory: 05		Tutorial 01
7	**Total Marks-100**	Theory	Max. Marks: 80	Min. Passing Marks: 27
		Internal	Max. Marks: 10	Min. Passing Marks : Not required
		Tutorial	Max. Marks: 10	Min. Passing Marks : 03

Part B: Content of the Course

Total Period : 90

Self Study :

1. **Basic concepts of sets , functions and relation**
2. **Countable and uncountable sets**
3. **Number System**
4. **Basic operations and types of Matrices**
5. **Concept of Rings**

23/12/22

1·1·1 , 1·1·2 , 1·2·1

Unit		No. of Lectures
I	**Theory of Equations and De Moivre's theorem** The division algorithm, Divisibility and the Euclidean algorithm, Modulararithmetic and basic properties of congruences; Elementary theorems on the roots of polynomial equations, Imaginary roots, The fundamental theorem of algebra (statement only); The n^{th} roots of unity, De Moivre's theorem for integer and rational indices and its applications.	18
II	**Groups, Subgroups, Normal Subgroups** Definition and properties of a group, Abelian groups, Subgroups and examples, Cosets and their properties, Lagrange's theorem and its applications, Normal subgroups and their properties, Simple groups, Factorsgroups.	18
III	**Cyclic group and Group Isomorphism** Cyclic groups and properties, Classifications of subgroup of cyclic groups, Group homomorphism and isomorphism with properties; First, second and third isomorphism theorems for groups. Cauchy theorem for finite Abelian groups; Centralizer, Normalizer, Center of a group, Product of two subgroups.	18
IV	**Permutation Groups , Row Echelon Form of Matrices and Applications** Permutation group and properties, Even and odd permutations, Cayley's theorem , Systems of linear equations, Row reduction and echelon forms, The rank of a matrix and its applications in solving system of linear equations; The inverse of a square matrix by Elementary operations, Eigenvectors and eigen values, The characteristic equation and the Cayley–Hamilton theorem.	18
V	**Vector Spaces and Linear Transformations** Definitions of field and vector space with examples, Subspaces, Linear span, Quotient space and direct sum, Linearly independent and dependent sets, Bases and dimension, Linear transformation and matrix of a linear transformation, Change of coordinates, Rank and nullityof linear transformation, Rank-nullity theorem.	18

1.1.1, 1.1.2, 1.2.1

Keywords /Tags - Theory of Equations, Groups, Subgroups, Normal Subgroups and Isomorphism Theorems, Cyclic and Permutation Groups, Row Echelon Form of Matrices and Applications, Vector Spaces and Linear Transformations.

Part C: Learning Resources

Text Books. Reference Books, Other Resources

Suggested Readings:

Reference Books:

1. Michael Artin (2014). *Algebra* (2nd edition). Pearson.
2. Modern Algebra , Qazi Zamuruddin and Surjeet Singh
3. John B. Fraleigh (2007). *A First Course in Abstract Algebra* (7th edition). Pearson.
4. Stephen H. Friedberg, Arnold J.Insel& Lawrence E. Spence (2003). *Linear Algebra* (4thedition). Prentice-Hall of India Pvt. Ltd.
5. Joseph A. Gallian (2017). *Contemporary Abstract Algebra* (9th edition). Cengage.
6. Kenneth Hoffman & Ray Kunze (2015). *Linear Algebra* (2nd edition). Prentice-Hall.
7. I. N. Herstein (2006). *Topics in Algebra* (2nd edition). Wiley India.
8. Nathan Jacobson (2009). *Basic Algebra* I (2nd edition). Dover Publications.
9. Ramji Lal (2017). *Algebra 1: Groups, Rings, Fields and Arithmetic*. Springer.
10. I.S. Luthar & I.B.S. Passi (2013). *Algebra: Volume 1: Groups*. Narosa.

Suggested Digital Platforms Web.links:

1. https://nlist.inflibnet.ac.in/
2. https://www.pdfdrive.com/
3. https://open.umn.edu/opentextbooks/subjects/mathematics
4. https://epgp.inflibnet.ac.in/

Govt.J.Yoganandam Chhattisgarh College,
Raipur (C.G.)

Structure of Law as an Optional Subject in B.A. Programme
Four Years/Eight Semesters Programme

Semester-I	**Introduction to the Indian Legal system**	**Marks**
Semester-II	**Justice System in India**	**100**
Semester-III	**Introduction to Indian Constitutions**	**100**
Semester-IV	**Introduction to Administrative Law**	**100**
Semester-V	**Civil & Criminal Justice System**	**100**
Semester-VI	**Law of Evidence**	**100**
Semester-VII	**Law of Contract and Family Law**	**100**
Semester-VII	**Interpretation and Research Methodology**	**100**

Course Level Learning Outcomes

1. Professional Skills

To Possess Professional Skills required for Legal Practice such as argument, advise, pleading, Drafting, Conveyancing etc.

2. Legal Knowledge

To acquire legal knowledge and to apply legal knowledge to the complex socio-legal problems.

3. Legal Skill

To apply legal reasoning and legal skill during legal practice and advise.

4. Self reflection

To develop an attitude of self reflection and to have ability to engage in independent learing in the changing legal contexts.

5. Self Employability

To provide a platform of self employability by developing Professional skill in legal industries /courts as a Advocate Judge, Advisor, Administrator or academician.

6. Lifelong Journey

To make awareness about current constitutional, Legislative and societal transformation in society and to develop clinical abilities.

7. Leadership Skills

To develop leadership qualities

8. Legal Skills

Every Law graduate will become skilled in legal research, oral and written communication, advocacy, teamwork, Judgment and problem solving.

9. Professional Practice

To make law students eligible to Practice in Court, Industries, companies as legal Practitioner and legal advisor.

10. Professional ethics

To Understand and apply Principles of Professional ethics in legal Profession at legal platform.

11. Elementary Standing

To Know the structure of legal institutions and hierarchy of court in India.

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ucture of Law as an Optional Subject in B.A. Programme

Structure of Law as an Optional Subject in B.A. Programme includes Eight Semesters (Four Year amme)

Part A: Introduction				
Programme : Optional Subject in BA Programme		Class: BA	04 Years (8 Semester)	Session: 2022-23
Subject:				
1	**Course Code**	LAW101		
2	**Course Title** (Name of Paper)	Structure of Law as an Optional Subject in B.A. Programme		
3	**Course Type**	**Optional Subject**		
4	**Pre-requisite (if any)**	To study this course a student must have admitted in BA ***(No. of Seats 10% of the BA Admission/60 Seats As per rules of the Bar Council of India)*** **Admission – On Merit Basis**		
5	**Course Learning Outcomes** (CLO)	The course will enable the students to: 1. Demonstrate understanding of substantive law as well as procedural law. 2. Enter the legal Profession in which knowledge is an advantage. 3. Interpret relevant facts. 4. Conduct legal research. 5. Understand the laws at national and global level. 6. Posses the Skills to Communicate in both oral and written forms. 7. Posses the ability to formulate legal problem using appropriate concepts. 8. Use Skill in Civil, Criminal, Industries Clinical , Social and Counseling area. 9. Analyzing social problems. 10. Understanding changing social dynamics.		
6	**Credit Value**	Theory: 04	Practical -02	
7	**Total Marks**	Max. Marks: 100 Theory - 60 Practical – 30 Internal Assessment -10	Min. Passing Marks: 36	

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1.1.1, 1.1.2, 1.2

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Structure of Law as an Optional Subject in B.A. Programme

First Semester

Name of the Paper - Introduction to the Indian Legal system

Specific Outcomes

On Successful completion of this course Students will be able to –

1. Demonstrate an advanced understanding.
2. Demonstrate Law in context of Political, Social, Historical, Natural, Philosophical, economical and analytical.
3. Demonstrate various legal concepts such as property, Rights and duties, person, Possession, ownership, title, obligation and liability which are the roots of law.
4. Understand ancient and modern source of Law.
5. Demonstrate briefly "Knowledge of Law"
6. Critically analyze complex problems relating to law and legal theory .
7. Engage in identification articulation and Critical evaluation of legal theory and legal concepts.
8. Have an elementary understanding around the nature of Law.
9. Understand and exercise legal rights and remedies and be aware of one's duties within the legal framework.

Unit	Part B: Content of the Course (Total Period-75)	No. of Lectures
I	**Introduction**– Meaning, Definition, Kinds and classification of Law, Difference between Law and Justice, Law and morality, Concept of Civil Criminal and Social Justice, Law and Society, Justice Equity and Good Conscience.	15
II	**Jurisprudence and theories of law**- Meaning, Nature and scope of Jurisprudence, its utility. Natural Law theory, Historical theory, Analytical School and Positivism theory, Utilitarian theory of Law, Sociological theory. Pure theory of Law.	15
III	**Sources of Law & Law of Equity**- Custom, Precedent, Legislation. Historical Introduction, Origin, Growth, Concept and Principles of Equity in Indian Legal System, Equity and Common Law, Maxims of Equity.	15
IV	**Development of Law & Administration of Justice**- Codification of Indian Law, Law Commissions. Development of Civil law and Criminal Law, Concept, Origin and Importance of Administration of Justice, Early Charters (1600 to 1661).	15
V	**Legal Concept**- Person, Rights & Duties, Passion and Ownership, Property, Title, Obligation and Liability.	15
Tutorial	**Group Discussion& Seminar**	

Part C: Learning Resources

Text Books. Reference Books, Other Resources

RECOMMENDED BOOKS-

1. H.L.A. Hart - The Concepts of Laws Oxford) ELBS
2. Salmond - Jurisprudence (Tripathi) Bombey
3. G.W.Paton - Jurisprudence (Oxford) ELBS
4. RWM Dias - Jurisprudence (Indian Rep) (Aditya) New Delhi
5. V.D. Mahajan - Jurisprudence and Legal Theory
6. Dr. B.N. Mani Tripathi - Jurisprudence (Hindi & English Addition)
7. Anirudh Prasad - विधि शास्त्र के मूल सिद्धांत (In Hindi)
8. Pro. N.V. Parajape - Jurisprudence and Legal Theory (In Hindi & English)
9. Pro. N.V. Parajape - Legal & Constitutional History (In Hindi & English)
10. G P Singh - Equity and Trust (In Hindi & English)
11. M P Jain - Legal & Constitutional History (In Hindi & English)

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Structure of Law as an Optional Subject in B.A. Programme

Second Semester LAW 201

Name of the Paper – Justice System in India

Specific Outcomes

Students will be able

1. To understand the development of legal institutions & Juridical Institutions.
2. To know the past of the present legal and judicial system.
3. Understand and appreciate the role of Courts.
4. Know the various institutions that form part of the Indian Legal system.
5. Acquire knowledge, skill and information of various types of Courts, Tribunals & Commissions.
6. Understand and appreciate the role of the law in society
7. Know the various institutions that form part of the Indian Legal system
8. Have knowledge about access to legal aid and justice, RTI and about the formal and alternative dispute redressal (ADR) mechanisms that exist in India.
9. Acquire knowledge, skill and information needed to become a responsible member of society.

Unit	Part B: Content of the Course (Total Period-75)	No. of Lectures
I	**Beginning of Adalat System-** Mayor's Court (1726-1753), Judicial Plan (1772-1780), Judicial Plan (1787-1793), Judicial Plan (1796-1835), Indian High Court Act (1861).	15
II	**Separation of Power-** Executive, Legislature, Judiciary. Courts and Tribunals and their Jurisdiction, High Courts, Priviy Council, Supreme Court of India writ jurisdiction.	15
III	**Alternative Dispute Redressal** - Legal Services Authority Act 1987, Provisions, Right to access to Justice and Free legal aid. Concept of mediation and conciliation. Arbitration – History, Definition, Procedure, Other forms of access to Justice. Public Interest Litigation, Lok Adalat.	15
IV	**Special Courts & Commissions-** General Principles of Family Court Act, POCSO Act, SC/ST Act, Juvenile Act, Human Right Act, Right to Information Act, Consumer Act.	15
V	**Procedure of Special Courts & Commissions** - Human Rights Commission, Right to Information Commissions, Consumer Forum & Commissions, Family Court , POCSO Court, SC/ST Court, Juvenile Court.	15
Tutorial	**Group Discussion & Seminar**	
Practical	**Visit to District Courts, Special Courts & Commissions,**	

Part C: Learning Resources

Text Books. Reference Books, Other Resources

RECOMMENDED BOOKS-

1. Frederick G. Kempin, LEGAL HISTORY: LAW AND SOCIAL CHANGE, 1st Ed. 1963, Prentice-Hall New Jersey.
2. Joseph Minnatur, THE LEGAL SYSTEM, 2nd Ed. 2008, Indian Law Institute, New Delhi.
3. Pro. N.V. Parajape - Legal & Constitutional History (In Hindi & English)
4. Diglot Bare Act - Human Rights Act 1998
5. Diglot Bare Act - Right to Information Act- 2005
6. Diglot Bare Act - Protection of Children from Sexual Offences Act, 2012 & 2019
7. Diglot Bare Act - Scheduled Tribes (Prevention of Atrocities) Act, 1989
8. Diglot Bare Act - Juvenile Justice (Care and Protection of Children) Act, 2015
9. Diglot Bare Act - The Consumer Protection Act 2019
10. Diglot Bare Act - The Family Court 1984
11. Diglot Bare Act - The Legal Services Authority Act 1987
12. Diglot Bare Act - Arbitration and Conciliation Act, 1996
13. Pro. N.V. Parajape - लोक हितवाद विधिक सहायता ।

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स्वशासी निकाय

शासकीय जे.योगानंदम छत्तीसगढ़ महाविद्यालय रायपुर (छ.ग.)

विभाग का नाम : एन.सी.सी. (NCC)

सत्र

2022 - 2023

अध्ययन मंडल : बैठक दिनांक 30.07.2022

अध्ययन मंडल के सदस्यों के नाम	हस्ताक्षर
1. कैप्टन अर्चना गोमास्ता	30/7/2022
2. लेफ्टिनेंट रवि कुमार बंजारे	30/07/22
3. सब.लेफ्टिनेंट महेश कुमार अलेंद्र	30.7.22
4. सब.लेफ्टिनेंट अनिल कुमार रामटेके	30/7/2022
5. लेफ्टिनेंट अरुणा ठाकुर	
6. जीतू साहू (Ex NCC Cadet)	

विभागाध्यक्ष
(एन. सी. सी.)

Lt. Dr. Anil Kumar Ramteke
Associated NCC Officer
1 CG Naval NCC Unit
Govt. J. Y. Chhattisgarh College
Raipur-492001.

प्राचार्य
शासकीय जे.यो. महाविद्यालय
रायपुर

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Govt. J. Yoganandam Chhattisgarh College,

Raipur (C.G.)

Faculty of NCC

Learning Outcome based Curriculum Framework

(LOCF)

Under

(CBCS)

For

B.A./B.Sc./B.Com

Multi-disciplinary Undergraduate Programme

2022-23

(Based on UGC Document on LOCF 2021)

Govt. J. Yoganandam Chhattisgarh College,

Raipur (C.G.)

NCC GENERAL ELECTIVE CREDIT COURSE DESIGN SUMMARY

S. No.	Semester	Course Code	Name of Course	Practical Code	Camp	Credits Allotted			Total Credit	Remark
						T	P	Camp		
1	Semester-I	NCC101	NCC: Organization & Community Development	NCCP101		1	1		02	
2	Semester-II	NCC201	Personality Development & Social Service	NCCP201		1	1		02	
3	Semester-III	NCC301	Leadership & Disaster Management	NCCP301	01	1	1	05	07	05 Credit of 1st Camp merged with 3rd Sem
4	Semester-IV	NCC401	General & Environmental Awareness	NCCP401		2	1		03	
									14	

DISCIPLINE SPECIFIC ELECTIVE (DSE) COURSE OF NCC (ARMY)

ARMY										
S. No.	Semester	Course Code	Name of Course	Practical Code	Camp	Credits Allotted			Total Credit	Remark
						T	P	Camp		
1	Semester-V	NCCA501	Army Organization & Communication	NCCAP501	01	1	1	05	07	05 Credit of 1st Camp merged with 5th Sem
2	Semester-VI	NCCA601	Map Reading & Infantry Weapons	NCCAP601		2	1		03	
									10	

DISCIPLINE SPECIFIC ELECTIVE (DSE) COURSE OF NCC (NAVY)

NAVY										
S. No.	Semester	Course Code	Name of Course	Practical Code	Camp	Credits Allotted			Total Credit	Remark
						T	P	Camp		
1	Semester-V	NCCN501	Naval Organization, Communication and Navigation	NCCNP501	01	1	1	5	07	05 Credit of 1st Camp merged with 5th Sem
2	Semester-VI	NCCN601	Seamanship, Flooding Control and Ship Modelling	NCCNP601		2	1		03	
									10	

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SCHEME AND SYLLABUS UNDER CHOICE BASED CREDIT SYSTEM
NCC Additional Certificate course Sub---NCC First Semester
Part: A

Program: Certificate course		Class: NCC 1st Semester	Year: 2022	Session 2022-2023
1	Course code	**NCC -101**		
2	Course Title	**Elective**		
	Paper	I		
3	Paper Title	**NCC: Organization and Community Development.**		
	Course type	Theory		
4	Pre requisite	To Study this course, students must have passed class 12th with any discipline and medically fit to undergo Physical training and qualify the screening test conducted by the Units/Battalion during the enrolment according to the available vacancies provided by the Units/Battalion.		
	Course Objective	To Develop Character, Comradeship, Leadership, Secular Outlook and Spirit of the adventure and motivating them to make career in armed forces among the Students.		
5	Course learning Out comes (CLO)	The Students will develop a sense of responsibility and thereby display sense of patriotism, secular values, discipline, improve bearing and develop the quality of immediate and implicit obedience of good things which will help to mould them a good citizen of the country.		
6	Credit value	Theory - 1	Practical - 1	Activity Based Internal Assessment
7	Total Marks	Max. Marks: 60 Minimum. Passing Marks: 20	Max. Marks: 30 Minimum. Passing Marks: 10	Max. Marks: 10 Minimum. Passing Marks: 03

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Part B

Content of Course

	Total Lectures - 15	
Unit	**Content**	**No. Of Lectures**
Unit I	**History of National Cadet Corps:** • National Cadet Corps Before and after Independence of India. • The National Cadet Corps Act 1948. • Motto of National Cadet Corps. • Cardinals of National Cadet Corps.	03
Unit II	**Organization of National Cadet Corps:** • Aims and Objectives. • Emblem, NCC Flag, NCC Song. • Organization of NCC - Army, Navy and Air Wing. • Rank Structure of Officers and PBLO'S of Army, Navy and Air Force.	04
Unit III	**Duties and Conduct as a NCC Cadet:** • Training Centres of NCC • Duties of NCC Cadets • Incentives • NCC Camps: Types and Conduct.	03
Unit IV	**National Integration and Awareness:** • National Integration: Importance and Necessity. • Factors affecting National Integration. • Unity in Diversity. • Threats to National Security.	03
Unit V	**Social Service and Community Development:** • Basics of Social Service. • Rural Development Programmes. • NGO's • Contribution of Youth	02
	Total Hours:	15
	Total Credits:	01

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Credit Value: 01	Total Hours: 15	Total Marks: 30	Minimum Passing Marks: 10

Exercise	Topics	No. Of hours/periods
1	**Foot Drill:** General and words of Command, Attention, Stand at ease, Turning: Left turn, Right Turn, About turn, Sizing, Forming up in threes, Numbering, Dressing of troupe, Khuli Line, Nikat Line, Saluting Pattern in Army, Navy and Air force, Falling out and Dismissing.	12
2	Group Discussion on Current topics and Issues, Public Speaking / Extempore, First Aid: Bandages and CPR	03
	Total Hours:	15
	Total Credis:	01

Keywords/Tags: Rank, NGO, Drill, Motto, Troupe

Part C: Learning Resources

Text Books, Reference Books, Other Resources

Suggested Readings:

1. NCC National Cadet Corps (Hindi & English) By Gupta, R.K., Ramesh Publication 2021.
2. Handbook of NCC an Unique book for NCC Cadets By Gupta, R.K., Naveen Publication 2019.
3. Handbook of NCC By Ranjan, Sahashi and Kumar, Aashish, Goodwin Publication 2021.
4. NCC National Cadet Corps By Chauhan, Rajeev Kumar, Aakriti Publication 2021.
5. Cadets Handbook, compiled and publish by NCC Directorate M.P. & C.G.

Suggested Digital Platforms/ Weblink:

1. https://www.en.mwikipedia.org
2. https://www.nccindia.in

30/7/2022 30/07/22 30/7/2022

NCC Additional Certificate course Sub---NCC Second Semester

Part: A

Program: Certificate course		Class: NCC 2nd semester	Year: 2022	Session 2022-2023
1	Course code	NCC -201		
2	Course Title	**Elective**		
	Paper	II		
3	Paper Title	**Personality Development and Social Service**		
	Course type	Theory		
4	Pre requisite	To Study this course, students must have appeared in the examination of previous semester of NCC.		
	Course Objective	To Develop Character, Comradeship, Leadership, Secular Outlook and Spirit of the adventure and motivating them to make career in armed forces among the Students.		
5	Course learning Out comes (CLO)	The Students will able to enhance their Physical, mental and emotional personality and become more confident towards there public life and learn good etiquettes.		
6	Credit value	Theory - 1	Practical - 1	
7	Total Marks	Max. Marks: 60 Minimum. Passing Marks: 20	Max. Marks: 30 Minimum. Passing Marks: 10	Max. Marks: 10 Minimum. Passing Marks: 03

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NCC P 201

Syllabus of Practical Paper

Credit Value: 01	Total Hours: 15	Total Marks: 30	Minimum Passing Marks: 10
Exercise	Topics		No. Of hours/periods
1	**Foot Drill:** Khade Khade Salute Karna Pared Par Visarjan, Agli Line, Madhy Line and Pichli Line se Line todna, Tej Chal Tham aur Dhire Chal Tham, Dahine Bayen, Aage aur Piche Kadam Lena, Tej Chal se Mudna, Tej Chal se Salute Karna, Tej Kadam Tal aur Tham, Tej Kadam Tal se Kadam Badalna, Teeno teen se ek file aur ek file se teeno teen banana, Dahine saj aur Dahine se saj.		12
2	Group Discussion on Current topics and Issues, Public Speaking / Extempore, NCC and Defence based Quiz and IQ exercises.		03
		Total Hours:	15
		Total Credit :	01

Keywords/Tags: Leadership, Capsule, Trait, Hygiene, Civic Sense, Honour Code

Part C: Learning Resources

Text Books, Reference Books, Other Resources

Suggested Readings:

6. Personality Development by Sabharwal, D.P. Finger Print Publishing India 2021.
7. 50 Mantras of Personality Development by Gaurav, Aarti, Buzzing Stoch Publishing 2013.
8. Personality development and soft skills, by Kapoor, Shikha, Deam Tech Press, 2020.
9. Leadership Wisdom, by Sharma, Robin, Jaico Publishing house, 2003.
10. Textbook of First Aid and Emergency Nurshing, by Mannivannan, C. And Mannivannan, T. Latha, EMMESS Medical Publishers, 2020.
11. NCC National Cadet Corps (Hindi & English) By Gupta, R.K., Ramesh Publication 2021.
12. Handbook of NCC an Unique book for NCC Cadets By Gupta, R.K., Naveen Publication 2019.
13. Handbook of NCC By Ranjan, Sahashi and Kumar, Aashish, Goodwin Publication 2021.
14. NCC National Cadet Corps By Chauhan, Rajeev Kumar, Aakriti Publication 2021.
15. Cadets Handbook, compiled and publish by NCC Directorate M.P. & C.G.

Suggested Digital Platforms/ Weblink:

4. https://www.en.mwikipedia.org
5. https://www.nccindia.in
6. https://www.firstadforfree.com
7. DG NCC TRAINING APP.

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Capt Deekang Goswami

Lt. Dr. Ravi Bansal

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NCC P201

Syllabus of Practical Paper

Credit Value: 01	Total Hours: 15	Total Marks: 30	Minimum Passing Marks: 10
Exercise	Topics		No. Of hours/periods
1	**Foot Drill:** Khade Khade Salute Karna Pared Par Visarjan, Agli Line, Madhy Line and Pichli Line se Line todna, Tej Chal Tham aur Dhire Chal Tham, Dahine Bayen, Aage aur Piche Kadam Lena, Tej Chal se Mudna, Tej Chal se Salute Karna, Tej Kadam Tal aur Tham, Tej Kadam Tal se Kadam Badalna, Teeno teen se ek file aur ek file se teeno teen banana, Dahine saj aur Dahine se saj.		12
2	Group Discussion on Current topics and Issues, Public Speaking / Extempore, NCC and Defence based Quiz and IQ exercises.		03
		Total Hours:	15
		Total Credit :	01

Keywords/Tags: Leadership, Capsule, Trait, Hygiene, Civic Sense, Honour Code

Part C: Learning Resources

Text Books, Reference Books, Other Resources

Suggested Readings:

6. Personality Development by Sabharwal, D.P. Finger Print Publishing India 2021.
7. 50 Mantras of Personality Development by Gaurav, Aarti, Buzzing Stoch Publishing 2013.
8. Personality development and soft skills, by Kapoor, Shikha, Deam Tech Press, 2020.
9. Leadership Wisdom, by Sharma, Robin, Jaico Publishing house, 2003.
10. Textbook of First Aid and Emergency Nurshing, by Mannivannan, C. And Mannivannan, T. Latha, EMMESS Medical Publishers, 2020.
11. NCC National Cadet Corps (Hindi & English) By Gupta, R.K., Ramesh Publication 2021.
12. Handbook of NCC an Unique book for NCC Cadets By Gupta, R.K., Naveen Publication 2019.
13. Handbook of NCC By Ranjan, Sahashi and Kumar, Aashish, Goodwin Publication 2021.
14. NCC National Cadet Corps By Chauhan, Rajeev Kumar, Aakriti Publication 2021.
15. Cadets Handbook, compiled and publish by NCC Directorate M.P. & C.G.

Suggested Digital Platforms/ Weblink:

4. https://www.en.mwikipedia.org
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6. https://www.firstadforfree.com
7. DG NCC TRAINING APP.

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Capt Deekang Goswami

Lt. Dr. Ravi Bajpai

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Govt J. Yoganandam Chhattisgarh College, Raipur (CG)

2022-23

M. A. ENGLISH III SEMESTER

Paper V (A) MEGIII-E1

New Literatures in English-I

Maximum Marks 80 Passing Marks 16

Unit I

African Culture, Religion and the World View, Colonial and Postcolonial Experiences in African and Caribbean context, the Oral Tradition, the Specificity of Caribbean Literature (Caribbean Poetry), Ethnicity, Hybridity,Creolisation.

Unit II

Kamau Brathwaite: Wings of a Dove

Derek Walcott: Crusoe's Journal

Unit III

WoleSoyinka:The Dance of the Forest

Unit IV

NgugiWaThiong'O: Homecoming

Unit V

Chimamanda Ngozi Adichie: The Purple Hibiscus

Directives for students, teachers and paper setters:

1. Candidates are expected to study the entire prescribed syllabus thoroughly.
2. Each unit is compulsory.
3.The question paper will be divided into three sections 'A','B' and 'C'.

Section 'A' : It will consist of ten objective type questions from each unit with no internal choice. It will be of one mark each. (1x10=10)

Section 'B' : It will consist of five short answer questions from each unit with internal choice. It will be of four marks each (5x 4 = 20).

Section 'C': There will be five long answer type questions (300 words) of 10 marks each from every unit with internal choice. (5x10=50).

Syllabus Approved by the Board of Studies English on 25.07.2022

Dr Kirti Tiwari (Chair Person) 25/7/2022

Dr G. A. Ghanshyam (Subject Expert)

Dr Tapas Mukherjee (Subject Expert)

Dr Pratibha Mukherjee Sahukar(Subject Expert)

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Ms Vintee(Student Representative)

1.1.1, 1.1.2, 1.2.1

Members:
1. Prof. A. Tiwari
2. Dr A. Juneja
3Dr Shashank Gupta
4 Dr Rachana Mishra

Govt J. Yoganandam Chhattisgarh College, Raipur (CG)

2022-23

M. A. ENGLISH III SEMESTER

PAPER – V (B) **MEGIII-E2**

Research Methodology and Computer Application- I

Maximum Marks 80

Passing Marks 16

Unit I: **Meaning and Nature of Research**
What is research?
Objectives of Research
Types of research
Criteria of a Good Research

Unit II: **Steps in Process**
Choosing a topic
Formulating the Research Problem
Review of Literature
Defining Aims and objectives

Unit III: **Materials and Tools of Research**
Primary and Secondary sources Books, Anthologies, Biographies, Thesauruses, Encyclopaedia, Conference proceedings, Unpublished theses, Newspaper articles, Journals, e-journals, Monographs, Translations, Web references, Library catalogues, Literature Resource Center, Govt. publications, Special libraries, Advanced study centers, Virtual libraries, Web search engines, CDs, DVDs etc.

Unit-IV: **Mechanics of Writing**
Quotations and Acknowledging the Sources
Title, Citation, Capitalization, Abbreviations
Arranging Bibliography
Guarding Against Plagiarism
Using Standard Style sheets

Unit-V: Computer Basics
MS-Word: Creating, editing and formatting a document
Text entry, font, text style and alignment
Understanding page layout, page set up, header and footer, numbering pages
Formatting paragraphs with paragraph spacing, bullet and numbering
Using grammar and spell check utilities
Print preview, printing a document.
Power Point Presentations

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1.1.1, 1.1.2, 1.2.1

Directives for students, teachers and paper setters:

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Section 'B':Itwill consist of five short answer questions from each unit with internal choice. It will be of four marks each (5x 4 = 20).

Section 'C': There will be five long answer type questions (300 words) of 10 marks each from every unit with internal choice. (5x10=50).

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1.1.1, 1.1.2; 1.2.1

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Govt J. Yoganandam Chhattisgarh College, Raipur (CG)

2022-23

M. A. ENGLISH SEMESTER – IV
PAPER - V (A) MEGIV-E1
NEW LITERATURES IN ENGLISH – II

Maximum marks 80

Passing Marks 16

Unit I

Different Histories and Responses to the Landscape, Early Canadian and Australian Literature, Multiculturalism, Marginalisation, Introduction to African American Literature, Race, Class and Gender, Slave Narrative.

Unit II

Langston Hughes: Mother to Son; I, Too.

Nikki Giovanni : Quilt; Possum Crossing.

Unit III

George Ryga: The Ecstasy of Rita Joe

Unit IV

Edward Said: Orientalism (Chapter I)

Unit V

Toni Morrison: Beloved

Directives for students, teachers and paper setters:

1. Candidates are expected to study the entire prescribed syllabus thoroughly.
2. Each unit is compulsory.
3. The question paper will be divided into three sections 'A','B'and 'C'.

Section 'A':It will consist of ten objective type questions from each unit with no internal choice. It will be of one mark each. . (1x10=10)

Section 'B':Itwill consist of five short answer questions from each unit with internal choice. It will be of four marks each (5x 4 = 20).

Section 'C': There will be five long answer type questions (300 words) of 10 marks each from every unit with internal choice. (5x10=50). A question on each author/text must be asked.

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1.1.1, 1.1.2, 1.2.1

Syllabus Approved by the Board of Studies English on 25. 07.22

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1.1.1, 1.1.2, 1.2.1

2022-23

M. A. ENGLISH SEMESTER – IV
PAPER - V (B) MEGIV-E2

Research Methodology and Computer Application- II

Maximum Marks 80 | Project Work | Passing Marks 16

This paper will consist of :

(i) Dissertation/Project Work

The students are supposed to write a dissertation on any topic of their choice under the supervision of a Professor of the Department.

The length of the dissertation should be about 50-75 pages in typed script.

The dissertation will consist of the following parts:

1. Title
2. Certificate
3. Declaration by the candidate regarding the originality of the work along with plagiarism check
4. Preface and Acknowledgements
5. Table of Contents
6. Introduction (with objectives, review of literature, justification of the topic and research methodology)
7. Topic related two chapters
8. Conclusion
9. Works consulted

(ii) Presentation and Viva on Dissertation/Project 20

The presentation of the candidate will be assessed for its clarity of thought, content and skill of expression.

Directives for Students and Examiner:

The Dissertation work shall be typed or computer printed in Times New Roman, 12 font.
Written work shall be scored for content, spelling, correctness of grammar, style and syntax, proper credit of sources and overall appearance.
Additionally, work should show a proper degree of originality, creativity, and effective presentation.
All work is expected to be handed in on time (failure to comply may result in point reduction) and confo to MLA 9th edition Writing Style Guidelines.

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1.1.1, 1.1.2, 1.2

स्वशासी निकाय

शासकीय जे. योगानन्दम् छत्तीसगढ़ महाविद्यालय रायपुर (छ.ग.)

विभाग का नाम :– Economics.

सत्र : 2022–2023

विगत वर्ष के पाठ्यक्रम में किया गया परिवर्तन

विषय का नाम :– Economics.

प्रश्न पत्र क्रमांक :– V

प्रश्न पत्र का नाम :– Industrial Economics.
Paper code – MEC1-E

पूर्णांक :– 80 उत्तीर्णांक :– 16

परिवर्तन से संबंधित विवरण :

Industrial Economics के Unit V से हटाए गए topics के नाम –
Iron and steel, cotton textile, Jute, Sugar Industries
Development of Small-Scale and Cottage Industries in India.
जोड़े गए topics के नाम –
New Industrial Policy in Chhattisgarh.
Major Industries in Chhattisgarh. Problems of Small and Cottage Industries in Chhatti

प्राचार्य

अध्ययन मण्डल के सदस्यों के हस्ताक्षर

प्रथम सेमेस्टर

सत्र : 2022–2023

विषय का नाम :– **अर्थशास्त्र**

प्रश्न पत्र क्रमांक :– **पंचम**

प्रश्न पत्र का नाम :– **INDUSTRIAL ECONOMICS**

Paper Code - MECI-E

पूर्णांक :– ..... **80** ..... उत्तीर्णांक :– ..... **16** .....

Scheme of Examination

i) The Question Paper will consist of three sections, Section A, Section B and Section C.
ii) Section A will consist of very short answer type questions (one word/one line), all questions are compulsory and each question will carry equal marks.
iii) Section B will consist of five short answer type questions (one question from each unit), all questions are compulsory and each question will carry equal marks. Word limit 50/75 words.
iv) Section C will consist of five long answer questions (one question from each unit). All questions will have internal option and each question will carry equal marks. Word limit 250/300 words.

Section-wise Marks Distribution

Section	No. of Questions	Marks (80)
A	10	10x1=10
B	05	5x5=25
C	05	5x8=40
Total Marks		**80**

पाठ्यक्रम

Unit – I Concept and organization of a firm-ownership, control and objectives of the firm. Product differentiation, entry conditions, economics of scale. Market structure and profitability, market structure and innovation, theories of industrial location, Alfred Weber and Sergeant Florence Theory. Factors affecting the location.

Unit – II Growth of the firm. Size of a firm, growth and profitability of the firm, constraints of growth of a firm, growth, productivity, efficiency and capacity utilization. Industrial policy in India, Role of Public and Private Sectors, Recent trends in Industrial growth. Liberalization and privatization, Regional industrial growth in India. Pollution control policies.

Unit – III Owned, external and other components of funds, Nature, volume and types of institutional finance – IDBI, IFCI, SFCs, SIDC, Commercial banks etc. Financial statement– Balance sheet, Profit and loss account, Assessment of financial soundness, Ratio analysis, Cost-benefit analysis.

Unit – IV Structure of industrial labour, Employment dimensions of Indian industry. Industrial legislation, Industrial relations, Exit policy and social security.

Unit – V New Industrial Policy in Chhattisgarh. Major Industries in Chhattisgarh. Problems of small and cottage Industries in Chhattisgarh.

Reference :-

1. Ahluwalia, I.J. (1985), Industrial Growth in India, Oxford University Press, New Delhi.
2. Barthwal, R.R. (1985) : Industrial Economics, Wiley Eastern Ltd., New Delhi.
3. Chernilam, F (1994) : Industrial Economics : Indian Perspective (3rd Edition), Himalaya Publishing House, Mumbai.
4. Desai, B. (1999), Industrial Economic in India (3rd Edition), Himalaya Publishing house Mumbai.

M.Sc. Physics (III Semester)
Paper-IV
Code: MPHIII-D

ELECTRONICS-III

Course Outcomes : On successful completion of course student will:

1. On Successful completion of course student will :
2. (i) Know about Number systems and codes and understand Logic gates,
3. laws of Boolean algebra and De Morgan's Theorem.
4. (ii) Acquire Knowledge about Karnaugh Map, Arithmetic circuits.
5. (iii) Know about different Logic families and Data processing Circuits.
6. (iv) Acquire Knowledge about Sequential circuits as Flipflops, Counters
7. and Shift registers.
8. (v) Understand Digital to Analog and Analog to Digital converters and
9. details of Digital Integrated Circuits.

UNIT-I: **Number System:** Decimal, Binary, Octal and Hexadecimal Number System with mutual Conversion, BCD addition and subtraction, 1's and 2's compliments, multiplication & division BCD code (8421), Excess- 3 code, gray code, binary to gray code and gray code to binary code conversion.
Logic Gates: Positive and negative logic, Basic gates, Universal building block. Basic laws of Boolean algebra. De-Morgan's Theorem.

UNIT-II: Two, three and four variable K-Map, mapping and minimization of SOP and POS expressions, pairs, quads, octal, overlapping, Rolling, Concept of Don't care condition. Ex-OR gate, Ex-NOR gate circuitry, Half adder, Full adder. Binary parallel adder, Serial adder, Half Subtractor, Full Subtractor, 1's compliments Subtractor circuit and 2's compliments Subtractor circuit.

Unit-III: Digital logic families: Introduction Basic concept of RTL, DTL. TTL ECL and CMOS logic. Decoder: 2 line to 4 line decoder, 1 of 16 Decoder, BCD to decimal decoder, BCD to seven segment decoder, Encoder: decimal to BCD encoder. Multiplexer: 2-input, 4-input, 16-input Multiplexer. Demultiplexer: 1 line to 2 line, 1 to 4 line and 1 line to 16 line Demultiplexer.

UNIT-IV: Flip-Flop and timing diagram, RS flip-flop using NOR gate, RS flip-flop using NAND gate, Clocked RS flip-flop, D- latch flip-flop, Preset and Clear, JK flip-flop, Positive and negative edge triggered flip-flops, JK Master Slave flip-flop. Counters: Binary ripple counter, up counter, down counter, decade counter and Ring counter and time diagram.
Registers: Parallel and Shift Register, Scaling, PIPO, SIPO, PISO, SOSI Bi-directional shift register, Application of shift register.

UNIT-V: Digital to analog converter and Analog to digital converters: D/A converters using binary weighted resistor network and R-2R ladder Network; Counter type A/D converter, Successive approximation A/D converter and dual slope converters, Application of DACs and ADCs.

4. Digital Integrated Electronics – Taub and Schilling, McGraw International Edition, 1977.
5. Fundamentals of Digital Circuits – A. Anand Kumar, Prentice Hall of India, N.Delhi, 2007.

Semester – III
Lab III-A: General
Code: MPHIII-E

At least ten experiments should be performed from the following list of experiments or parallel level experiment depending upon the facilities available.

1. To determine activation energy of ionic/superionic solid by Temperature depended conductivity measurement.
2. To study Electron Spin(ESR)Resonance in DPPH (Diphenyl PricylHydrazy) sample.
3. To study I-V characteristics of photovoltaic solar cell and find the efficiency.
4. To study the decay of photoconductivity of given sample and find out trap depth.
5. Study of decay of photoluminescence of a given sample.
6. Measurement of electrical conductivity using Impedance Spectroscopy technique.
7. To determine drift velocities of Ag+ ion in AgI from temperature dependence of ionic transference number study.
8. Electrical conductivity of Ball milled/Mechano-chemical synthesized materials.
9. Determination of strength of a given radioactive source.
10. Study of complete spectra of radioactive sources, and study of photo peak efficiency of NaI(Tl) crystal for different energy gamma rays.
11. Structural analysis of powder sample by XRD and particle size determination using Scherrer's formula.
12. FTIR studies of solid samples.
13. Mechanoluminescence of sucrose crystals.
14. Thermoluminescence of irradiated samples.
15. Determination of band gap of semiconductor by four probe method.
16. Measurement of Hall Coefficient of given semiconductor: identification of type of semiconductor and estimation of charge carrier concentration.
17. Quinke method.

M.Sc. Physics (IV Semester)
Paper-IV
Code : MPHIV-D

ELECTRONICS-IV

Course Outcomes : On successful completion of course student will:

1. Know about evolution of Microprocessor and Micro Computers and different types of Memories.
2. Acquire knowledge about Architecture of microprocessor 8085, Instruction cycles and Timing diagrams.
3. Know about Addressing Modes and Instruction set of 8085 μp. Learn types of different languages, Modular and Structured Programming.
4. Know about Assembly Language Programming of 8085 μp.
5. Acquire knowledge about Optical Fibers and their types.

Unit-I: **Microprocessor & Micro Computers:** Evolution of Microprocessor, Internal Microprocessor, Architecture, Architecture of digital computer.
Memory: Semiconductor memories (RAM, ROM, PROM, EPROM, Shift register)
Magnetic Memory: Floopy disks, Hard disks, Optical disks, Magnetic Bubble Memory.
Networking: Local Area Networking (LAN), LAN topology (Bus, Star, Ring)

UNIT-II: **Intel 8085:** ALU, Timing and Control Unit, Registers, Data and Address Bus, Pin Configuration.
Instruction Cycle: Op-code and Operands, Fetch Operation, Execute Operation, Machine Cycle, Instruction and Data flow.
Time Diagram: Opcode fetch Cycle, Memory read, I/O read, Memory write, I/O write.

UNIT-III: **Addressing Modes:** Direct Addressing, Register Addressing, Register Indirect Addressing, Immediate Addressing, Implicit Addressing.
Instruction set of 8085: Data transfer group, Arithmetic group, Logical group. Machine and Assembly Language.
High and Low level Language. Modular and Structure Programming.

UNIT-IV: **Assembly Language Programs:** Addition of Two 8-bit number; Sum: 8-bit, Addition of Two 8-bit number; Sum: 16-bit, 8-bit subtraction, Find the largest number in a data array, To arrange a series of numbers in Descending order, Find the smallest number in a data array, To arrange a data array in ascending order, Shift an 8-bit number left by one and two bits, Shift of 16-bit number left by one and two bits.

UNIT-V: **Optical Fibers:** Introduction, Structure, Classification, Refraction and Snell's law, Total internal reflection, Light Propagation through optical fiber, Acceptance angle for incident ray, Numerical Aperture, Number of modes and cut-off parameter, Single mode propagation, comparison of step and graded index fiber.
Types of Optical Fiber: HPSUU, HPSIR, Halide fiber
Optical Fiber Cables: Multifibre cable, Splicing and connectors. Advantages and Disadvantage of optical fiber.

M.Sc. Physics (III Semester)
Paper-IV
Code: MPHIII-D

ELECTRONICS-III

Course Outcomes : On successful completion of course student will:

1. On Successful completion of course student will :
2. (i) Know about Number systems and codes and understand Logic gates,
3. laws of Boolean algebra and De Morgan's Theorem.
4. (ii) Acquire Knowledge about Karnaugh Map, Arithmetic circuits.
5. (iii) Know about different Logic families and Data processing Circuits.
6. (iv) Acquire Knowledge about Sequential circuits as Flipflops, Counters
7. and Shift registers.
8. (v) Understand Digital to Analog and Analog to Digital converters and
9. details of Digital Integrated Circuits.

UNIT-I: **Number System:** Decimal, Binary, Octal and Hexadecimal Number System with mutual Conversion, BCD addition and subtraction, 1's and 2's compliments, multiplication & division BCD code (8421), Excess- 3 code, gray code, binary to gray code and gray code to binary code conversion.
Logic Gates: Positive and negative logic, Basic gates, Universal building block. Basic laws of Boolean algebra. De-Morgan's Theorem.

UNIT-II: Two, three and four variable K-Map, mapping and minimization of SOP and POS expressions, pairs, quads, octal, overlapping, Rolling, Concept of Don't care condition. Ex-OR gate, Ex-NOR gate circuitry, Half adder, Full adder. Binary parallel adder, Serial adder, Half Subtractor, Full Subtractor, 1's compliments Subtractor circuit and 2's compliments Subtractor circuit.

Unit-III: Digital logic families: Introduction Basic concept of RTL, DTL. TTL ECL and CMOS logic. Decoder: 2 line to 4 line decoder, 1 of 16 Decoder, BCD to decimal decoder, BCD to seven segment decoder, Encoder: decimal to BCD encoder. Multiplexer: 2-input, 4-input, 16-input Multiplexer. Demultiplexer: 1 line to 2 line, 1 to 4 line and 1 line to 16 line Demultiplexer.

UNIT-IV: Flip-Flop and timing diagram, RS flip-flop using NOR gate, RS flip-flop using NAND gate, Clocked RS flip-flop, D- latch flip-flop, Preset and Clear, JK flip-flop, Positive and negative edge triggered flip-flops, JK Master Slave flip-flop. Counters: Binary ripple counter, up counter, down counter, decade counter and Ring counter and time diagram.
Registers: Parallel and Shift Register, Scaling, PIPO, SIPO, PISO, SOSI Bi-directional shift register, Application of shift register.

UNIT-V: Digital to analog converter and Analog to digital converters: D/A converters using binary weighted resistor network and R-2R ladder Network; Counter type A/D converter, Successive approximation A/D converter and dual slope converters, Application of DACs and ADCs.

29.7.22 29.7.22

Integrated Circuit: Introduction, Technology, Advantages and disadvantages, Basic technology of monolithic IC, Basic processes used in monolithic technology, Fabrication of components on monolithic IC, IC packing, symbol and scale of integration.

TEXT AND REFERENCE BOOKS

1. Digital Principals and applicatio0ns – Malvino and Leach, Tata McGraw Hills, New Delhi, 1991.
2. Digital and Analogue Technique – Navneet Gokhale and Kale, Kitab Mahal.
3. Hand Book of Electronics – Gupta and Kumar, Pragati Prakashan, Meerut, 2008.
4. Digital Integrated Electronics – Taub and Schilling, McGraw International Edition, 1977.
5. Fundamentals of Digital Circuits – A. Anand Kumar, Prentice Hall of India, N.Delhi, 2007.

Semester – III
Lab III-A: General
Code: MPHIII-E

At least ten experiments should be performed from the following list of experiments or parallel level experiment depending upon the facilities available.

1. To determine activation energy of ionic/superionic solid by Temperature depended conductivity measurement.
2. To study Electron Spin(ESR)Resonance in DPPH (Diphenyl PricylHydrazy) sample.
3. To study I-V characteristics of photovoltaic solar cell and find the efficiency.
4. To study the decay of photoconductivity of given sample and find out trap depth.
5. Study of decay of photoluminescence of a given sample.
6. Measurement of electrical conductivity using Impedance Spectroscopy technique.
7. To determine drift velocities of Ag+ ion in AgI from temperature dependence of ionic transference number study.
8. Electrical conductivity of Ball milled/Mechano-chemical synthesized materials.
9. Determination of strength of a given radioactive source.
10. Study of complete spectra of radioactive sources, and study of photo peak efficiency of NaI(Tl) crystal for different energy gamma rays.
11. Structural analysis of powder sample by XRD and particle size determination using Scherrer's formula.
12. FTIR studies of solid samples.
13. Mechanoluminescence of sucrose crystals.
14. Thermoluminescence of irradiated samples.
15. Determination of band gap of semiconductor by four probe method.
16. Measurement of Hall Coefficient of given semiconductor: identification of type of semiconductor and estimation of charge carrier concentration.
17. Quinke method.

29.7.22

29.7.22

Rajat

Memory: Semiconductor memories (RAM, ROM, PROM, EPROM, Shift register)

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UNIT-II: **Networking:** Local Area Networking (LAN), LAN topology (Bus, Star, Ring)

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Machine and Assembly Language.

High and Low level Language. Modular and Structure Programming.

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UNIT-V: **Optical Fibers:** Introduction, Structure, Classification, Refraction and Snell's law, Total internal reflection, Light Propagation through optical fiber, Acceptance angle for incident ray, Numerical Aperture, Number of modes and cut-off parameter, Single mode propagation, comparison of step and graded index fiber.

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Optical Fiber Cables: Multifibre cable, Splicing and connectors. Advantages and Disadvantage of optical fiber.

1.1.1, 1.1.2, 1.2.1.

M.Sc. Anthropology
Semester-IV
Paper III
Applied Anthropology

Course Code : MAN IV-C

Max. marks- 80
Min. Marks-16

Scheme of Examination

1. The Question Paper will consist of three sections namely Section A ,B and C.
2. Section A will consist of ten very short answer type questions .
3. Section B will consist of five short answer type questions.
4. Section C will consist of five long answer type questions with internal choice.

Section	No. of Question	Marks (80)
A	10	1x10 = 10
B	05	4x5 = 20
C	05	10x5 = 50
Max. Marks		80

Unit: I

Meaning and Scope of Applied Biological Anthropology
Anthropology of Sports
Nutritional Anthropology
Designing of defence Equipments in defence Services

Unit : II

Applications of Human Genetics: Medico-Legal Cases, Eugenics
Genetic Screening, Genetic Counseling, Genetic Engineering
Human Genomics & Its Applications

Unit : III

Meaning & Scope of Applied Social Anthropology
Applied Anthropology in Industry
Applied Anthropology in Education
Applied Anthropology in Public Health

Unit IV

Reproductive health and anthropology
Occupational health and anthropology
Obesity and its implications : Physical and Psychosomatic health
Childhood obesity : Prevalence, assessment and management

DEPARTMENT OF ZOOLOGY, GOVT. J. YOGANANDAM CHHATTISGARH COLLEGE, RAIPUR

M.Sc. Zoology

4th Semester: January-June 2022

Paper-II: Ecology and Limnology

Unit-I

1. Community structure and attributes.
2. Ecotone, Edge effect and ecological niche.
3. Types of species interactions and its effects.
4. Ecological succession.

Unit-II

1. Species diversity and its importance.
2. Types of species: Generalist species and specialist species, Native and alien species, Indicator species, Keystone species.
3. Ecosystem with high species diversity.
4. Threats to species diversity.
5. Conservation of species diversity.

Unit-III

1. Bioaccumulation and Biomagnifications.
2. Eutrophication.
   A. Causes and mechanisms.
   B. Types of eutrophication.
   C. Effects.
   D. Prevention, reversal and remediation.
3. Sewage water treatment.
4. Solid waste management.

Unit IV

1. Fresh water habitat –
   A. Characteristics and types of fresh water habitat.
   B. Fresh water Adaptations.
2. Lentic ecosystem-pond ecosystem.
3. Lotic Ecosystem –River ecosystem
4. Estuarine ecosystem
   A. Types of Estuaries.
   B. Biodiversity of estuarine ecosystem.
   C. Threats and challenges of estuarine ecosystem.

Members of Board of Studies in Zoology

M.Sc. CHEMISTRY SEMESTER-II

CH-11

LABORATORY COURSE – III

Organic Chemistry

MCH II-E

MM 100

TIME: 6 Hrs.

1. **General Methods for Separation and Purification of Organic Compounds with Special reference to:**
   - Solvent Extraction
   - Fractional Crystallizations
2. **Distillation Techniques:**
   Simple distillation, steam distillation, Fractional distillation and Distillation under reduced pressure.
3. **Analysis of Organic Binary Mixture:**
   Separation and identification of organic binary mixtures containing two components.(A student is expected to analyze at least 10 different binary mixtures)
4. **Preparation of Organic Compounds: Single Step Preparation:**
   - **I.** Acetylation: synthesis of (β – Naphthyl acetate from β – Naphthol Diacetate from Hydroquinone.
   - **II.** Aldol condensation: Dibenzal acetone from benzaldehyde.
   - **III.** Bromination: p-bromoacetanilide from acetanilide.
   - **IV.** Canizzaro reaction: Benzoic acid and benzyl alcohol from benzaldehyde.
   - **V.** Friedel crafts reaction: O-benzoyl benzoic acid from phthalic anhydride.
   - **VI.** Grignard reaction: Synthesis of triphenylmethanol from benzoic acid.
   - **VII.** Oxidation: Adipic acid by chromic acid oxidation of cyclo-hexanol.
   - **VIII.** Perkin's reaction: Cinnamic acid from benzaldehyde.
   - **IX.** Sandmeyer reaction: p-chlorotoluene formp-toluidine/O-chlorobenzoic acid from anthranilic acid.
   - **X.** Schotten Baumann Reaction: (β – Naphthyl benzoate from: [β – Naphthol / phenyl benzoate from phenol.
   - **XI.** Sulphonation reaction:Sulphanilic acid from aniline.
   - **XII.** Nitration: p-nitroacetanilide from acetanilide.
   - **XIII.** Hydrolysis: p-nitroaniline from p-nitroacetanilide and bromoaniline from p-bromoacetanilide.
   - **XIV.** Claisen- Schimdt Reaction.
   - **XV.** Diazotisation

Any Experiment in Advance Nature Or Experiment based on Green Chemistry/ availability of chemicals or instruments.

Books Suggested:

1. Practical Organic Chemistry by A. 1. Vogel
2. Practical Organic Chemistry by Mann and Saunders.
3. Practical Organic Chemistry by Garg and saluja.
4. The systematic Identification of Organic Compounds by R.L. Shriner and D.Y. Curtin.
5. Semi micro Qualitative Organic Analysis, N.D. Cherois, J.B. Entikin and E.M. Hodnett.
6. A Handbook of Organic analysis by H.T. Clarke.
7. Advanced Practical Organic Chemistry by O.P.Agrawal.

SCHEME FOR PRACTICAL EXAMINATION

EXPERIMENT	MARKS
Experiment-1	30
Experiment-2	30
Viva-voce	20
Sessional Marks	20
TOTAL MARKS	**100**

Chairperson/ H.O.D.	**Departmental members(Name and Signatures)** 1 .....
Subject Expert ..... **(University Nominee)**	2 .....
Subject Expert	3 .....
Subject Expert	4 .....
Representative (Alumni & Student)	

M.Sc. CHEMISTRY SEMESTER-II

CH-12

LABORATORY COURSE – IV

Analytical Chemistry

MCH II-F

MM 100
TIME: 6 Hrs.

Part-A. Analytical Chemistry

1. **Error Analytical and statistical data analysis:**
   Error, types of error, minimization of errors, statistical treatment for error analysis, standard deviation, method of least squares. Calibration of volumetric apparatus, burettes, pipettes, standard flask, weight box etc.

2. **Volumetric Analysis:**
   Determination of iodine and saponification values of oil samples, Determination of DO, COD, BOD, hardness of water sample.

3. **Solubility:**
   a. Determination of solubility of an inorganic salt in water at different temperature and hence plot the solubility curve.
   b. Determination of transition temperature by solubility method.

4. **Chromatography:**
   a. Separation of inorganic ions and amino acids by paper chromatography, column chromatography.
   b. Separation and identification of the sugars present in given mixture of glucose, fructose and sucrose by paper chromatography and determinatin of Rf values.
   c. Thin – layer chromatography:- Separation of Ni, Mn, Co and Zn and determination of Rf values.

5. **Conductance of Electrolyte:**
   a. Determination of basicity of organic acids.
   b. Determination of degree of hydrolysis and hydrolysis constant of CH_3COONa & NH_4Cl

6. **Flame Photometry/AAS/FIA:**
   Determination of cations, anions and metal ions e.g. Na, K, Ca, SO_4, NO_2, Fe, Mo, Ni.

7. **Spectrophotometry:**
   a. Verification of Beer's law. Molar absorptivity calculation, plotting graph to obtain/ max etc. Study of colour change and pH range of some indicators.
   b. Determination of some metal ions in various environmental samples.

8. **Nephlemetry / Turbidimetry**
   Determination of chloride, sulphate, phosphate, turbidity etc.

Any Experiment in Advance Nature Or Experiment based on Green Chemistry/ availability of chemicals or instruments.

SCHEME FOR PRACTICAL EXAMINATION

EXPERIMENT	MARKS
Experiment-1	30
Experiment-2	30
Viva-voce	20
Sessional Marks	20
TOTAL MARKS	**100**

Chairperson/ H.O.D. for PBr	**Departmental members(Name and Signatures)**
Subject Expert Dr. A.K. Singh (University Nominee)	1. Mrs. Smt. Pratibha Bunty PBr
Subject Expert Mrs. S.L. Patle	2. Anuradha Choudhary
Subject Expert Dr Rishi Rawat	3. Dr. Yamini Thakur
Representative (Alumni & Student) ———	4. ———