Criterion –1: Curricular Aspects

1.1 - Curricular Planning and Implementation

1.1.1 - The Institution ensures effective curriculum delivery through a well planned and documented process

Submitted to National Assessment and Accreditation Council (2022-2023)

कार्यालय आयुक्त उच्च शिक्षा
ब्लॉक सी–3, द्वितीय एवं तृतीय तल, इंद्रावती भवन,
नवा रायपुर, अटल नगर (छ.ग.)

(Email - highereducation.cg@gmail.com Website - www.highereducation.cg.gov.in)

क्रमांक 2937/761/आउशि/सम./2022   नवा रायपुर, अटल नगर दिनांक 07/06/2022

प्रति,

1. कुलसचिव,
   समस्त विश्वविद्यालय छ.ग.।

2. प्राचार्य,
   समस्त शासकीय महाविद्यालय छ.ग.।

विषय :–   शैक्षणिक सत्र 2022–23 हेतु अकादमिक कैलेण्डर विषयक ।
संदर्भ :–   अवर सचिव छ.ग. शासन उच्च शिक्षा विभाग का पत्र क्रमांक एफ 17–83/2018/38–2
           दिनांक 06.06.2022

—–00—–

उपर्युक्त संदर्भित विषयान्तर्गत लेख है कि छ.ग.उच्च शिक्षा विभाग द्वारा शैक्षणिक सत्र 2022–23

का अकादमिक कैलेण्डर जारी किया गया है, जो मूलतः संलग्न कर प्रेषित है।

कृपया उक्त अकादमिक कैलेण्डर का कड़ाई से पालन करना सुनिश्चित करें ।

(आयुक्त,उच्च शिक्षा द्वारा अनुमोदित)

संलग्न :– उपरोक्तानुसार

7.6.2022

अपर संचालक
उच्च शिक्षा संचालनालय,
नवा रायपुर अटल नगर(छ.ग.)

पृ.क्रमांक/2938/761/आउशि/सम/2021 नवा रायपुर अटल नगर दिनांक 07/06/2022
प्रतिलिपि :–

1. अवर सचिव छ.ग. शासन, उच्च शिक्षा विभाग मंत्रालय महानदी भवन नवा रायपुर अटल नगर छ.ग.
   को सूचनार्थ ।
2. क्षेत्रीय अपर संचालक, क्षेत्रीय कार्यालय, उच्च शिक्षा रायपुर/बिलासपुर/जगदलपुर/
   अंबिकापुर/दुर्ग की ओर सूचनार्थ।

7.6.2022

अपर संचालक
उच्च शिक्षा संचालनालय,
नवा रायपुर अटल नगर(छ.ग.)

उच्च शिक्षा विभाग, छत्तीसगढ़ शासन
शैक्षणिक सत्र 2022–23 का अकादमिक केलेण्डर

क्र.	विवरण		तिथियाँ
1	प्रवेश प्रक्रिया (महाविद्यालय स्तर पर)		
	(क)	स्नातक प्रथम वर्ष हेतु	16.06.2022 से 16.08.2022 तक
	(ख)	अन्य कक्षाओं हेतु	16.06.2022 से 15.07.2022 या परीक्षा परिणाम घोषित होने के उपरान्त 10 दिन के भीतर
	(ग)	प्रवेश प्रकिया विश्वविद्यालय के माध्यम से ऑनलाइन पद्धति से	
2	कुलपति की अनुमति से प्रवेश की अंतिम तिथि		26 अगस्त, 2022 तक
3	नियमित कक्षायें प्रारंभ		01.07.2022 से
4	वार्षिक परीक्षाओं का आयोजन		11 मार्च, 2023 से 01 मई, 2023
5	सभी वार्षिक परीक्षा परिणामों की घोषणा		16.06.2023 तक
6	पुनर्मूल्यांकन के सभी परिणामों की घोषणा		31.08.2023 तक
7	पूरक परीक्षा का आयोजन		न्यूनतम समय में
8	पूरक परीक्षा के परिणामों की घोषणा		31.10.2023 तक
9	छात्रसंघ गतिविधियाँ		
	(क)	छात्रसंघ गठन प्रक्रिया एवं शपथ ग्रहण	03.09.2022 से 09.09.2022 छात्रसंघ गठन हेतु चुनाव/मनोनयन, शासन के निर्देशानुसार
10	खेलकूद एवं सांस्कृतिक, गतिविधियाँ :–		
	(क)	खेलकूद प्रतिस्पर्धा प्रारम्भ (इंडोर आउटडोर)	18.07.2022 से
	(ख)	खेलकूद प्रतिस्पर्धाओं का समापन (इंडोर आउटडोर)	20.12.2022 तक
	(ग)	महाविद्यालय स्तर पर खेलकूद (इंडोर आउटडोर) का वार्षिक आयोजन एवं पुरस्कार वितरण	21, 22 एवं 23 दिसम्बर, 2022 में से कोई दो दिन
11	एन सी.सी. /एन.एस.एस. एवं अन्य गतिविधियाँ :–		
	(क)	वृक्षारोपण कार्यक्रम	जुलाई, 2022 के द्वितीय सप्ताह
	(ख)	महाविद्यालय स्तर पर वार्षिकोत्सव का आयोजन	21, 22 एवं 23 दिसम्बर, 2022 में से कोई एक दिन
	(ग)	एनसीसी /एनएसएस कैम्प का आयोजन	24.12.2022 से 31.12.2022 तक
	(घ.)	दीक्षान्त समारोह	जनवरी–फरवरी, 2023

अनुभाग अधिकारी
उच्च शिक्षा विभाग, मंत्रालय
अटल नगर, नवा रायपुर (छ.ग.)

		विवरण	तिथियाँ
		अवकाश	
	(अ)	दशहरा अवकाश (3 दिन)	03.10.2022 से 05.10.2022 तक
	(ब)	दीपावली अवकाश (3 दिन)	24.10.2022 से 26.10.2022 तक
	(स)	शीतकालीन अवकाश (3 दिन)	24.12.2022 से 26.12.2022 तक
	(द)	ग्रीष्मकालीन अवकाश (1 माह)	16.05.2023 से 15.06..2023 तक
13		आंतरिक परीक्षाओं का कार्यक्रम	
	1	प्रथम यूनिट परीक्षा	01.09.2022
	2	द्वितीय यूनिट परीक्षा	30.09.2022
	3	तृतीय यूनिट परीक्षा	05.11.2022
	4	प्रथम सत्र/सेमेस्टर परीक्षा	24, 25, 26 नवम्बर, 2022
	5	चतुर्थ यूनिट परीक्षा	19.12.2022
	6	द्वितीय सत्र/सेमेस्टर परीक्षा	28, 29, 30 दिसम्बर, 2022
	7	प्री– फाइनल परीक्षा	27, 28, 30 जनवरी, 2023
14		वार्षिक परीक्षा कार्यक्रम	
	1	वार्षिक प्रायोगिक परीक्षाओं का आयोजन	माह फरवरी, 2023
	2	वार्षिक परीक्षाओं का आयोजन	मार्च, 2023 प्रथम सप्ताह से

नोटः– अपरिहार्य कारणवश शैक्षणिक कार्य दिवस निर्धारित मानक 180 दिवसों से कम होने की स्थिति में समस्त महाविद्यालयों एवं विश्वविद्यालयों में अपने स्तर पर शैक्षणिक कालखण्डों की अवधि में वृद्धि कर शैक्षणिक दिवसों की पूर्ति की जाए ताकि अकादमिक केलेण्डर का पालन सुनिश्चित हो।

नियमित विद्यार्थी के रूप में वार्षिक परीक्षा में बैठने की पात्रता :–

1. प्रत्येक विषय में ऑफलाइन कक्षाओं में 75 प्रतिशत उपस्थिति अनिवार्य है।
2. कुल 7 आंतरिक परीक्षाओं कक्षाओं में से कम से कम 5 में सम्मिलित होना अनिवार्य है बिना इसके वार्षिक परीक्षा में बैठने की अनुमति नहीं दी जाये।
3. एन.सी.सी./एन.एस.एस. कैम्प/खेलकूद/राज्य स्तरीय प्रतिस्पर्धाओं में सम्मिलित हुए छात्रों को उपस्थित माना जाये।
4. कक्षाओं में उपस्थिति की प्रथम गणना 30 नवम्बर तक की जाये।
5. कम उपस्थिति वाले छात्रों को तथा उनके पालको को सूचना दी जाये।
6. कक्षाओं में उपस्थिति की द्वितीय गणना 28 फरवरी तक की जाये।

अनुभाग अधिकारी
उच्च शिक्षा विभाग, मंत्रालय
अटल नगर, नवा रायपुर (छ.ग.)

2

(सेमेस्टर कक्षाओं के लिए)

अकादमिक कार्य	स्नातक/स्नातकोत्तर (I/III/V/VII/IX सेमेस्टर)	स्नातक/स्नातकोत्तार (II/IV/VI/VIII/X सेमेस्टर)
प्रवेश प्रकिया	16 जून से 30 जून, 2022	—
कक्षाओं का आरम्भ	1 जुलाई, 2022	16 जनवरी, 2023
प्रायोगिक परीक्षाएँ	24 नवम्बर, 2022 से	24 अप्रैल, 2023 से
परीक्षा पूर्व तैयारी	25 नवम्बर, 2022 से 10 दिसम्बर, 2022 तक	25 अप्रैल, 2023 से 10 मई, 2023 तक
लिखित परीक्षाऍं	11 दिसम्बर, 2022 से	11 मई, 2023 से
परीक्षा परिणाम	15 जनवरी, 2023	15 जून, 2023

शिक्षक के कर्तव्य एवं निर्देश

प्रत्येक कार्य दिवस पर शिक्षक को महाविद्यालय/विश्वविद्यालय शिक्षण विभाग में 07 घण्टे रूकना आवश्यक होगा।

1. प्रातः कालीन पाली के लिए — प्रातः 07:30 से 02:30 अपरान्ह

2. द्वितीय कालीन पाली के लिए — प्रातः 10:30 से 05:30 संध्या

3. 07 घण्टे का कार्य विवरण —

   6 घण्टे अध्ययन–अध्यापन कार्य
   (प्रायोगिक, ट्यूटोरियल, रेमेडियल, शोधकार्य, लाईब्रेरी वर्क शामिल है।)

   1 घण्टा अन्य कार्य (खेलकूद, रिक्रियेशन, प्राचार्य द्वारा प्रदत्त कार्य, विद्यार्थियों का शंका समाधान, नैक मूल्यांकन संबंधी कार्य)

4. समस्त प्रकार की बैठक/स्टॉफ कौंसिल की बैठक दोपहर 03:00 बजे के पश्चात् आयोजित की जावे।

5. विश्वविद्यालय द्वारा आयोजित परीक्षाओं के संचालन एवं मूल्यांकन से संबंधित कार्य का अनिवार्यतः निष्पादन करेंगे।

6. छ.ग. शासन, उच्च शिक्षा विभाग के निर्देशानुसार सभी महाविद्यालयों एवं विश्वविद्यालयों में हेल्प डेस्क का गठन कर विद्यार्थियों को वांछित जानकारियॉं प्रदान करेंगें।

अनुभाग अधिकारी
उच्च शिक्षा विभाग, मंत्रालय
अटल नगर, नवा रायपुर (छ.ग.)

यदि पाठ्यकम पूर्ण नहीं हुआ है तो पाठ्यक्रम को पूर्ण करने के लिए अध्यापन हेतु महाविद्यालय स्तर पर कालखण्ड में यथोचित समय वृद्धि की जाये।

8. आवश्यकता पड़ने पर अध्ययन–अध्यापन की पद्धति में सूचना प्रौद्योगिकी का यथोचित विस्तार किया जाये।

----000----

अनुभाग अधिकारी
उच्च शिक्षा विभाग, मंत्रालय
अटल नगर, नवा रायपुर (छ.ग.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

//CollegeAcademicCalendar2022-23//

	FIRST WEEK	SECONDWEEK	THIRDWEEK	FOURTHWEEK
JUNE	Printing Prospectus World Environment day	Staff council meeting	Admission Committee Meeting International Yoga Day	International abdication Nivaran day
JULY	Online Application Start Through university Time Table Committee Meeting Plantation	IQAC Meeting	Online Application Start Through University	Online Application Start Through University career Guidance & counciling Seminar
AUGUST	TY Class Admission Commencement of SY/TY/PG Second Year Online Teaching Cleanliness Week	Within15 Days SY&TY Admission Within 15 Days after result declaration. International Youth day Independence Day(15August) Celebration of Rani Avanti Bai Jayanti	Within 15 Days SY & TY Admission Within 15 Days after result declaration. Sweep activity , Orientation ceremony & PTM	Within 15 Days SY & TY Admission Within 15 Days after result declaration.
SEPTEMBER	World Population Day Program Induction Program for FY Students Percent's Meet Teacher's Day	Filling up Scholarship & Free Ship Forms Inauguration National Nutrition Week International literacy day	International Hindi Day Result Declaration Supply Examination Word Ozone Day Amrit Mahotsav	Science Association unit, Unit Test Sweep Activity Staff counciling meeting
OCTOBER	Mahatma Gandhi Jayanti Placement Cell Activity Unit Test	Preparation of AQAR 2021-22Missile Man APJ Abdul Kalam Jayanti Program	Dussehra Vacation World Food day	Preparation of AQAR Vallabh bhai patel Day Diwali Vacation
NOVEMBER	Staff counciling meeting Blood Donation & Awareness programme	Term End Exam Sweep Activity Sector level kabbadi games Financial	Unit Test NSS Camping	Guest Lectures Internal Assessment PG 1st and3rd Semester) Literacy Awareness programme
DECEMBER	Preparation of AQAR Unit Test World Aids Day	Preparation of AQAR IQAC Meeting Internal Assessment World Human Rights Day	Preparationof AQAR Internal Assessment Winter Vacation Staff counciling meeting	Submission of AQAR Internal Youth Festival Assessment Programmme & competition Annual Function University Examination) 1stand3rd Semester)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

//CollegeAcademicCalendar2022-23//

	FIRST WEEK	SECONDWEEK	THIRDWEEK	FOURTHWEEK
JANUARY	University PG Examination Submission of AISHE data Unit Test	Celebration of Vivekananda Jayanti University Examination	Unit Test	Republic Day Flag Hoisting (26th Jan Prize Distribution Voter's Day Annual Function
FEBRUARY	Stock Verification	Practical Examination	Practical Examination	Practical Examination National Science Day
MARCH	Annual Examination	Annual Examination World Woman's Day	Annual Examination	Annual Examination
APRIL	Annual Examination	Annual Examination Staff council meeting	Annual Examination	Annual Examination
MAY	Internal Assessment PG 2nd and4th Semester)			University Examination)2nd and 4th Semester) Non tobacco Day
JUNE	Planning of Committees for next Academic Year	Printing of Prospectus, Admission Forms Submission of Departmental and Committee Reports to Central Documentation Committee (IQAC)	Summer Vacation Start	Year End Meeting &Distribution of Committee Work & College Assessment of work load for advertisement for new posts University PG Examinations

कार्यालय प्राचार्य, शासकीय रानी अवंतीबाई लोधी महाविद्यालय, घुमका जिला–राजनांदगाँव (छ.ग.)

समय सारणी
विज्ञान संकाय
सत्र 2022–23

कक्षा	10.30 से11.10	11.10 से 11.50	11.50 से 12.30	12.30 से 01.10	01.10 से 01.50	01.50 से 02.30	02.30 से 03.10	03.10 से 03.50	03.50 से 04.30	04.30 से 05.10
	1	2	3	4	5	6	7	8	9	10
बी.एस.सी – प्रथम	प्राणीशास्त्र कक्ष क्र.–2	गणित कक्ष क्र.–2	रसायनशास्त्र कक्ष क्र.–2	वनस्पतिशास्त्र कक्ष क्र.–2	भौतिकशास्त्र कक्ष क्र.–2	अंग्रेजी भाषा	पर्यावरण	हिंदी भाषा कक्ष क्र.–2 (गु.शु.श.)	प्रायोगिक (सो.म.बु.गु.) खेलकूद एवं सांस्कृतिक कार्यक्रम (शु.श.)	कम्प्यूटर – W रसायन – T/S - M गणित T/S - T प्राणीशास्त्र T/S - T वनस्पतिशास्त्र T/S – Th भौतिकशास्त्र T/S - F
बी.एस.सी – द्वितीय	वनस्पतिशास्त्र कक्ष क्र.–05	भौतिकशास्त्र कक्ष क्र.–05	प्राणीशास्त्र कक्ष क्र.–05	रसायनशास्त्र कक्ष क्र.–05	अंगेजी भाषा कक्ष क्र.–05	गणित कक्ष क्र.–05	कम्प्यूटर – W रसायन – T/S - M गणित T/S - T प्राणीशास्त्र T/S - T वनस्पतिशास्त्र T/S – Th भौतिकशास्त्र T/S - F	हिंदी भाषा कक्ष क्र.–05 (गु.शु.श.)	प्रायोगिक	खेलकूद एवं सांस्कृतिक कार्यक्रम
बी.एस.सी – तृतीय	प्रायोगिक	रसायन शास्त्र कक्ष क्र.–18	भौतिकशास्त्र कक्ष क्र.–18	प्राणीशास्त्र कक्ष क्र.–18	गणित कक्ष क्र.–18	वनस्पतिशास्त्र कक्ष क्र.–18	अंगेजी भाषा (गु.शु.श) कक्ष क्र.–18	हिंदी भाषा कक्ष क्र.–18 (गु.शु.श.)	कम्प्यूटर – W रसायन – T/S - M गणित T/S - T प्राणीशास्त्र T/S - T वनस्पतिशास्त्र T/S – Th भौतिकशास्त्र T/S - F	खेलकूद एवं सांस्कृतिक कार्यक्रम

नोट   T   .   ट्यूटोरियल कक्षाएं
       S   .   विशेष कोचिंग कक्षाएं

(डॉ. बी. के. देवांगन)
प्राचार्य
शासकीय रानी अवंती बाई लोधी महाविद्यालय,
घुमका, जिला–राजनांदगांव (छ.ग.)

कार्यालय प्राचार्य, शासकीय रानी अवंतीबाई लोधी महाविद्यालय, घुमका जिला-राजनांदगाँव (छ.ग.)

समय सारणी

कला संकाय

सत्र 2022-23

कक्षा	10.30 से11.10	11.10 से 11.50	11.50 से 12.30	12.30 से 01.10	01.10 से 01.50	01.50 से 02.30	02.30 से 03.10	03.10 से 03.50	03.50 से 04.30	04.30 से 05.10
	1	2	3	4	5	6	7	8	9	10
बी. ए. – प्रथम	हिन्दी साहित्य कक्ष क्र.–16	राजनीतिशास्त्र कक्ष क्र.–16	अंग्रेजी भाषा कक्ष क्र.–16	इतिहास कक्ष क्र.–16	अर्थशास्त्र कक्ष क्र.–16	समाजशास्त्र कक्ष क्र.–16	हिन्दी भाषा (सो.म.बु.) कक्ष क्र.–16	पर्यावरण	कम्प्यूटर – (M) हिंदी साहित्य T/S– T समाजशास्त्र T/S – (w) राजनीतिशास्त्र T/S –(Th) अर्थशास्त्र T/S – (f) इतिहास T/S – (s)	खेलकूद एवं सांस्कृतिक कार्यक्रम
बी. ए. – द्वितीय	इतिहास कक्ष क्र.–17	समाजशास्त्र कक्ष क्र.–17	हिन्दी साहित्य कक्ष क्र.–17	राजनीतिशास्त्र कक्ष क्र.–17	हिंदी भाषा कक्ष क्र.–17 (गु.शु.श.)	अर्थशास्त्र कक्ष क्र.–17	अंग्रेजी भाषा कक्ष क्र.–17	कम्प्यूटर – (M) हिंदी साहित्य T/S– T समाजशास्त्र T/S – (w) राजनीतिशास्त्र T/S –(Th) अर्थशास्त्र T/S – (f) इतिहास T/S – (s)	सांस्कृतिक कार्यक्रम	खेलकूद
बी. ए. – तृतीय	राजनीतिशास्त्र कक्ष क्र.–01	इतिहास कक्ष क्र.–01	अर्थशास्त्र कक्ष क्र.–01	समाजशास्त्र कक्ष क्र.–01	हिन्दी साहित्य कक्ष क्र.–01	अंग्रेजी भाषा कक्ष क्र.–01	कम्प्यूटर – (M) हिंदी साहित्य T/S– T समाजशास्त्र T/S – (w) राजनीतिशास्त्र T/S –(Th) अर्थशास्त्र T/S – (f) इतिहास T/S – (s)	हिन्दी भाषा कक्ष क्र.–01	सांस्कृतिक कार्यक्रम	खेलकूद

नोट   T   ट्यूटोरियल कक्षाएं

         S   विशेष कोचिंग कक्षाएं

(डॉ. बी. के. देवांगन)
प्राचार्य
शासकीय रानी अवंती बाई लोधी महाविद्यालय,
घुमका, जिला–राजनांदगांव (छ.ग.)

शासकीय रानी अवंती बाई लोधी महाविद्यालय,
घुमका, जिला—राजनांदगांव (छ.ग.)

F:\Admission File\Time teble docx — 36 —

कार्यालय प्राचार्य, शासकीय रानी अवंतीबाई लोधी महाविद्यालय, घुमका जिला—राजनांदगांव (छ.ग.)

समय—सारिणी
सत्र 2022—2023
एम. ए. हिन्दी प्रथम/द्वितीय सेमेस्टर

कक्षा	11.10 से 11.50	11.50 से 12.30	12.30 से 01.10	01.10 से 01.50	01.50 से 02.30 तक
	1	2	3	4	5
एम.ए. हिन्दी प्रथम सेमेस्टर	प्राचीन एवं मध्यकालीन काव्य (द्वितीय)	छायावाद एवं पूर्ववर्ती काव्य (तृतीय)	आदिकाल एवं पूर्व मध्यकाल (प्रथम)	नाटक, एकांकी एवं चरितात्मक कृति (चतुर्थ)	खेलकूद एवं सांस्कृतिक कार्यक्रम
एम.ए. हिन्दी द्वितीय सेमेस्टर	मध्यकालीन काव्य (षष्टम)	प्रयोगवादी एवं प्रगतिवादी काव्य (सप्तम)	उत्तर मध्यकाल एवं आधुनिक काल (पंचम)	उपन्यास, निबंध एवं कहानी (अष्टम)	खेलकूद एवं सांस्कृतिक कार्यक्रम

एम. ए. हिन्दी तृतीय/चतुर्थ सेमेस्टर

कक्षा	11.10 से 11.50	11.50 से 12.30	12.30 से 01.10	01.10 से 1.50	01.50 से 02.30 तक
	1	2	3	4	5
एम.ए. हिन्दी तृतीय सेमेस्टर	भाषा विज्ञान (द्वितीय)	साहित्य के सिद्धांत एवं आलोचना शास्त्र (प्रथम)	भारतीय साहित्य (चतुर्थ)	कामकाजी हिन्दी एवं पत्रकारिता (तृतीय)	खेलकूद एवं सांस्कृतिक कार्यक्रम
एम.ए. हिन्दी चतुर्थ सेमेस्टर	हिन्दी भाषा (षष्ठ)	हिन्दी आलोचना तथा समीक्षा शास्त्र (पंचम)	जनपदीय भाषा और साहित्य (छत्तीसगढ़ी) (अष्टम)	मीडिया लेखन एवं अनुवाद (सप्तम)	खेलकूद एवं सांस्कृतिक कार्यक्रम

(डॉ. बी. के. देवांगन)
प्राचार्य
शासकीय रानी अवती बाई लोधी महाविद्यालय,
घुमका जिला—राजनांदगांव (छ.ग.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.comPhone – 07744-296940college code-1904

DEPARTMENT OF CHEMISTRY

TIME TABLE 2022-23

Name of the Teacher:- SMT. PRITI KHURSAIL, Assistant Professor-Chemistry

Lecture Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
11.10 To 11.50	B.Sc. -3 Theory Class	B.Sc. -3 Theory Class	B.Sc. -3 Theory Class	B.Sc. -3 Theory Class	B.Sc. -3 Theory Class	B.Sc. -3 Theory Class
11.50 To 12.30	B.Sc. -1 Theory Class	B.Sc. -1 Theory Class	B.Sc. -1 Theory Class	B.Sc. -1 Theory Class	B.Sc. -1 Theory Class	B.Sc. -1 Theory Class
12.30 To 01.10	B.Sc. -2 Theory Class	B.Sc. -2 Theory Class	B.Sc. -2 Theory Class	B.Sc. -2 Theory Class	B.Sc. -2 Theory Class	B.Sc. -2 Theory Class
02.30 To 03.10	B.Sc. -3 Practical Class	B.Sc. -3 Practical Class	B.Sc. -3 Practical Class	B.Sc. -2 Tutorial Class Special Coaching	B.Sc. -3 Practical Class	B.Sc. -3 Practical Class
03.50 To 04.30	B.Sc. -2 Practical Class	B.Sc. -2 Practical Class	B.Sc. -2 Practical Class	B.Sc. -2 Practical Class	B.Sc. -3 Tutorial Class Special Coaching	B.Sc. -2 Practical Class
04.30 To 05.10	B.Sc. -1 Practical Class	B.Sc. -1 Practical Class	B.Sc. -1 Tutorial Class Special Coaching	B.Sc. -1 Practical Class	B.Sc. -1 Practical Class	B.Sc. -1 Practical Class

SMT. PRITI KHURSAIL
ASSISTANT PROFESSOR- CHEMISTRY

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF PHYSICS

INDIVIDUAL WORKLOAD/TIME TABLE

YEAR 2022-23

Name of the Teacher:- MRS. SANDHYA VERMA , GESUST LECTURER PHYSICS

Lecture Timing	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10.30 To 11.10	B.Sc. -2 Physics Theory Class	B.Sc. -2 Physics Theory Class	B.Sc. -2 Physics Theory Class	B.Sc. -2 Physics Theory Class	B.Sc. -2 Physics Theory Class	B.Sc. -2 Physics Theory Class
11.10 To 11.50						
11.50 To 12.30						
12.30 To 01.10	B.Sc. -1 Physics Theory Class	B.Sc. -1 Physics Theory Class	B.Sc. -1 Physics Theory Class	B.Sc. -1 Physics Theory Class	B.Sc. -1 Physics Theory Class	B.Sc. -1 Physics Theory Class
01.10 To 01.50						
01.50 To 02.30	B.Sc. -3 Physics Theory Class	B.Sc. -3 Physics Theory Class	B.Sc. -3 Physics Theory Class	B.Sc. -3 Physics Theory Class	B.Sc. -3 Physics Theory Class	B.Sc. -3 Physics Theory Class
02.30 To 03.10			B.Sc. -1 Botany & Physics Batch No. – 1, 2 PRACTICAL	B.Sc. -1 Botany & Physics Batch No. – 3, 4 PRACTICAL		
03.10 To 03.50	B.Sc. -3 Botany & Physics Batch No. – 1, 2 PRACTICAL	B.Sc. -3 Botany & Physics Batch No. – 3, 4 PRACTICAL				
03.50 To 04.30					B.Sc. -2 Botany & Physics Batch No. – 1, 2 PRACTICAL	B.Sc. -2 Botany & Physics Batch No. – 3, 4 PRACTICAL
04.30 To 05.10			B.Sc. -1 Remedial Class			B.Sc. -1 Special Coaching Tutorial Class

<table>
<tr><td>Saordhyee.</td><td>Manwangu</td></tr>
<tr><td>MRS. SANDHYA VERMA
GEUST LECTURER
PHYSICS</td><td>(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)</td></tr>
</table>

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF ZOOLOGY

INDIVIDUAL WORKLOAD/TIME TABLE

YEAR 2022-23

Name of the Teacher:- MR. S.N. KAMDI, Assistant Professor ZOOLOGY

Lecture Timing	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10.30 To 11.10	B.Sc. -1 Zoology Theory Class	B.Sc. -1 Zoology Theory Class	B.Sc. -1 Zoology Theory Class	B.Sc. -1 Zoology Theory Class	B.Sc. -1 Zoology Theory Class	B.Sc. -1 Zoology Theory Class
11.10 To 11.50						
11.50 To 12.30	B.Sc. -2 Zoology Theory Class	B.Sc. -2 Zoology Theory Class	B.Sc. -2 Zoology Theory Class	B.Sc. -2 Zoology Theory Class	B.Sc. -2 Zoology Theory Class	B.Sc. -2 Zoology Theory Class
12.30 To 01.10	B.Sc. -3 Zoology Theory Class	B.Sc. -3 Zoology Theory Class	B.Sc. -3 Zoology Theory Class	B.Sc. -3 Zoology Theory Class	B.Sc. -3 Zoology Theory Class	B.Sc. -3 Zoology Theory Class
01.10 To 01.50						
01.50 To 02.30						
02.30 To 03.10					B.Sc. -1 Zoology Batch No. – 1, 2 PRACTICAL	B.Sc. -1 Zoology Batch No. – 3, 4 PRACTICAL
03.10 To 03.50			B.Sc. -3 Zoology Batch No. – 1, 2 PRACTICAL	B.Sc. -3 Zoology Batch No. – 3, 4 PRACTICAL		
03.50 To 04.30	B.Sc. -2 Zoology Batch No. – 1, 2 PRACTICAL	B.Sc. -2 Zoology Batch No. – 3, 4 PRACTICAL				

MR. S.N. KAMDI
ASSISTANT PROFESSOR
ZOOLOGY

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF MATHEMATICS

INDIVIDUAL WORKLOAD/TIME TABLE

YEAR 2022-23

Name of the Teacher:- SMT. VARSHA SAHU, GEUST LECTURER- Mathematics

Lecture Timing	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10.30 To 11.10	B.COM-I Theory Class	B.COM-I Theory Class	B.COM-I Theory Class	B.COM-I Theory Class	B.COM-I Theory Class	B.COM-I Theory Class
11.10 To 11.50	B.SC.-I	B.SC.-I	B.SC.-I	B.SC.-I	B.SC.-I	B.SC.-I
01.10 To 01.50	B.SC.-II	B.SC.-II	B.SC.-II	B.SC.-II	B.SC.-II	B.SC.-II
01.50 To 02.30	B.SC.-III	B.SC.-III	B.SC.-III	B.SC.-III	B.SC.-III	B.SC.-III
02.30 To 03.10						
03.10 To 03.50						
03.50 To 04.30						
02.30 To 03.10						
03.10 To 03.50						
03.50 To 04.30						

SMT. VARSHA SAHU
GEUST LECTURER
MATHEMATICS

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF BOTANY

INDIVIDUAL WORKLOAD/TIME TABLE

YEAR 2022-23

Name of the Teacher:-MR. DEVANAND BANDHE, GEUST LECTURER BOTANY

Lecture Timing	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10.30 To 11.10	B.Sc. -2 Botany Theory Class	B.Sc. -2 Botany Theory Class	B.Sc. -2 Botany Theory Class	B.Sc. -2 Botany Theory Class	B.Sc. -2 Botany Theory Class	B.Sc. -2 Botany Theory Class
11.10 To 11.50						
11.50 To 12.30						
12.30 To 01.10	B.Sc. -1 Botany Theory Class	B.Sc. -1 Botany Theory Class	B.Sc. -1 Botany Theory Class	B.Sc. -1 Botany Theory Class	B.Sc. -1 Botany Theory Class	B.Sc. -1 Botany Theory Class
01.10 To 01.50						
01.50 To 02.30	B.Sc. -3 Botany Theory Class	B.Sc. -3 Botany Theory Class	B.Sc. -3 Botany Theory Class	B.Sc. -3 Botany Theory Class	B.Sc. -3 Botany Theory Class	B.Sc. -3 Botany Theory Class
02.30 To 03.10			B.Sc. -1 Botany & Physics Batch No. – 1, 2 PRACTICAL	B.Sc. -1 Botany & Physics Batch No. – 3, 4 PRACTICAL		
03.10 To 03.50	B.Sc. -3 Botany & Physics Batch No. – 1, 2 PRACTICAL	B.Sc. -3 Botany & Physics Batch No. – 3, 4 PRACTICAL				
03.50 To 04.30					B.Sc. -2 Botany & Physics Batch No. – 1, 2 PRACTICAL	B.Sc. -2 Botany & Physics Batch No. – 3, 4 PRACTICAL
04.30 To 05.10			B.Sc. -1 Remedial Class			B.Sc. -1 Special Coaching Tutorial Class

MR. DEWANAND BANDHE
GEUST LECTURER
BOTANY

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF POLITICAL SCIENCE

INDIVIDUAL WORKLOAD/TIME TABLE

YEAR 2022-23

Name of the Teacher:- -SMT. YOGITA BANJARE, GEUST LECTURER POLITICAL SCIENCE

Lecture Timing	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10.30 To 11.10						
11.10 To 11.50	B.A.-1 POLI. SCI. Theory Class	B.A.-1 POLI. SCI. Theory Class	B.A.-1 POLI. SCI. Theory Class	B.A.-1 POLI. SCI. Theory Class	B.A.-1 POLI. SCI. Theory Class	B.A.-1 POLI. SCI. Theory Class
11.50 To 12.30	B.A.-3 POLI. SCI. Theory Class	B.A.-3 POLI. SCI. Theory Class	B.A.-3 POLI. SCI. Theory Class	B.A.-3 POLI. SCI. Theory Class	B.A.-3 POLI. SCI. Theory Class	B.A.-3 POLI. SCI. Theory Class
12.30 To 01.10						
01.10 To 01.50	B.A.-2 POLI. SCI. Theory Class	B.A.-2 POLI. SCI. Theory Class	B.A.-2 POLI. SCI. Theory Class	B.A.-2 POLI. SCI. Theory Class	B.A.-2 POLI. SCI. Theory Class	B.A.-2 POLI. SCI. Theory Class
01.50 To 02.30						
02.30 To 03.10	B.A.-1 EVS. Theory Class	B.A.-1 EVS Theory Class	B.A.-1 EVS Theory Class	B.A.-1 POLI. SCI. Theory Class	B.A.-1 POLI. SCI. Theory Class	B.A.-1 POLI. SCI. Theory Class
03.10 To 03.50						
03.50 To 04.30						
04.30 To 05.10						

SMT. YOGITA BANJARE
GUEST LECTURER
POLITICAL SCIENCE

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF HISTORY

INDIVIDUAL WORKLOAD/TIME TABLE

YEAR 2022-23

Name of the Teacher:- -MR. DEEPAK VERMA ,ASSISTANT PROFESSOR- HISTORY

Lecture Timing	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10.30 To 11.10	B.A.-2 HISTORY Theory Class	B.A.-2 HISTORY Theory Class	B.A.-2 HISTORY Theory Class	B.A.-2 HISTORY Theory Class	B.A.-2 HISTORY Theory Class	B.A.-2 HISTORY Theory Class
11.10 To 11.50	B.A.-3 HISTORY Theory Class	B.A.-3 HISTORY Theory Class	B.A.-3 HISTORY Theory Class	B.A.-3 HISTORY Theory Class	B.A.-3 HISTORY Theory Class	B.A.-3 HISTORY Theory Class
11.50 To 12.30						
12.30 To 01.10	B.A.-1 HISTORY Theory Class	B.A.-1 HISTORY Theory Class	B.A.-1 HISTORY Theory Class	B.A.-1 HISTORY Theory Class	B.A.-1 HISTORY Theory Class	B.A.-1 HISTORY Theory Class
01.10 To 01.50						
01.50 To 02.30						
02.30 To 03.10						
03.10 To 03.50	B.A.-1 Tutorial					
03.50 To 04.30		B.A.-2 Tutorial	B.A.-3 Tutorial	B.A.-1 Tutorial	B.A.-2 Tutorial	B.A.-3 Tutorial
04.30 To 05.10						

MR. DEEPAK VERMA
ASSISTANT PROFESSOR
HISTORY

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF ECONOMICS

INDIVIDUAL WORKLOAD/TIME TABLE

YEAR 2022-23

Name of the Teacher:- -DR. ROSHAN PRASAD ,ASSISTANT PROFESSOR- ECONOMICS

Lecture Timing	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10.30 To 11.10						
11.10 To 11.50	B.COM.-2 Theory Class	B.COM.-2 Theory Class	B.COM.-2 Theory Class	B.COM.-2 Theory Class	B.COM.-2 Theory Class	B.COM.-2 Theory Class
11.50 To 12.30	B.A.-3 Theory Class	B.A.-3 Theory Class	B.A.-3 Theory Class	B.A.-3 Theory Class	B.A.-3 Theory Class	B.A.-3 Theory Class
12.30 To 01.10	B.COM.-1 Theory Class	B.COM.-1 Theory Class	B.COM.-1 Theory Class	B.COM.-1 Theory Class	B.COM.-1 Theory Class	B.COM.-1 Theory Class
01.10 To 01.50	B.A.-1 Theory Class	B.A.-1 Theory Class	B.A.-1 Theory Class	B.A.-1 Theory Class	B.A.-1 Theory Class	B.A.-1 Theory Class
01.50 To 02.30	B.A.-2 Theory Class	B.A.-2 Theory Class	B.A.-2 Theory Class	B.A.-2 Theory Class	B.A.-2 Theory Class	B.A.-2 Theory Class
02.30 To 03.10						
03.10 To 03.50						
03.50 To 04.30						
04.30 To 05.10						

DR. ROSHAN PRASHAD
ASSISTANT PROFESSOR
ECONOMICS

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF SOCIOLOGY

INDIVIDUAL WORKLOAD/TIME TABLE

YEAR 2022-23

Name of the Teacher:- -DR. B. K. DEWANGAN ,ASSISTANT PROFESSOR- SOCIOLOGY

Lecture Timing	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10.30 To 11.10						
11.10 To 11.50	B.A.-2 SOCIOLOGY Theory Class	B.A.-2 SOCIOLOGY Theory Class	B.A.-2 SOCIOLOGY Theory Class	B.A.-2 SOCIOLOGY Theory Class	B.A.-2 SOCIOLOGY Theory Class	B.A.-2 SOCIOLOGY Theory Class
11.50 To 12.30						
12.30 To 01.10	B.A.-3 SOCIOLOGY Theory Class	B.A.-3 SOCIOLOGY Theory Class	B.A.-3 SOCIOLOGY Theory Class	B.A.-3 SOCIOLOGY Theory Class	B.A.-3 SOCIOLOGY Theory Class	B.A.-3 SOCIOLOGY Theory Class
01.10 To 01.50						
01.50 To 02.30	B.A.-1 SOCIOLOGY Theory Class	B.A.-1 SOCIOLOGY Theory Class	B.A.-1 SOCIOLOGY Theory Class	B.A.-1 SOCIOLOGY Theory Class	B.A.-1 SOCIOLOGY Theory Class	B.A.-1 SOCIOLOGY Theory Class
02.30 To 03.10						
03.10 To 03.50						
03.50 To 04.30						
04.30 To 05.10						

DR. B. K. DEWANGAN
SOCIOLOGY

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF HINDI

INDIVIDUAL WORKLOAD/TIME TABLE

YEAR 2022-23

Name of the Teacher:- K.D. DESHLAHRA , Assistant Professor- HINDI

Lecture Timing	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10.30 To 11.10	B.A.-2 Theory Class	B.A. -2 Theory Class	B.A. -2 Theory Class			
11.10 To 11.50	M.A. HINDI-3 SEM	M.A. HINDI-3 SEM	M.A. HINDI-3 SEM	M.A. HINDI-3 SEM	M.A. HINDI-3 SEM	M.A. HINDI-3 SEM
11.50 To 12.30	B.A.-2 HINDI LITERATURE Theory Class	B.A.-2 HINDI LITERATURE Theory Class	B.A.-2 HINDI LITERATURE Theory Class	B.A.-2 HINDI LITERATURE Theory Class	B.A.-2 HINDI LITERATURE Theory Class	B.A.-2 HINDI LITERATURE Theory Class
12.30 To 01.10	M.A.-1 HINDI SEM	M.A.-1 HINDI SEM	M.A.-1 HINDI SEM	M.A.-1 HINDI SEM	M.A.-1 HINDI SEM	M.A.-1 HINDI SEM
01.10 To 01.50						
01.50 To 02.30	B.COM- 2 HINDI	B.COM- 2 HINDI	B.COM- 2 HINDI			
02.30 To 03.10						
03.10 To 03.50						
03.50 To 04.30						
04.30 To 05.10						

DR. K. D. DESHLAHRA
ASSISTANT PROFESSOR
HINDI

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF COMMERCE

INDIVIDUAL WORKLOAD/TIME TABLE

YEAR 2022-23

Name of the Teacher:- -DR. SATYADEV TRIPATHI ,ASSISTANT PROFESSOR- COMMERCE

Lecture Timing	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10.30 To 11.10						
11.10 To 11.50						
11.50 To 12.30	B.COM.-I Theory Class	B.COM.-I Theory Class	B.COM.-I Theory Class	B.COM.-I Theory Class	B.COM.-I Theory Class	B.COM.-I Theory Class
12.30 To 01.10	B.COM.-III Theory Class	B.COM.-III Theory Class	B.COM.-III Theory Class	B.COM.-III Theory Class	B.COM.-III Theory Class	B.COM.-III Theory Class
01.10 To 01.50	B.COM.-II Theory Class	B.COM.-II Theory Class	B.COM.-II Theory Class	B.COM.-II Theory Class	B.COM.-II Theory Class	B.COM.-II Theory Class
01.50 To 02.30	B.COM.-I Theory Class	B.COM.-I Theory Class	B.COM.-I Theory Class	B.COM.-I Theory Class	B.COM.-I Theory Class	B.COM.-I Theory Class
02.30 To 03.10	B.COM.-II Theory Class	B.COM.-II Theory Class	B.COM.-II Theory Class	B.COM.-II Theory Class	B.COM.-II Theory Class	B.COM.-II Theory Class
03.10 To 03.50	B.COM.-III Theory Class	B.COM.-III Theory Class	B.COM.-III Theory Class	B.COM.-III Theory Class	B.COM.-III Theory Class	B.COM.-III Theory Class
03.50 To 04.30						
04.30 To 05.10						

DR. SATYADEV TRIPATHI
ASSISTANT PROFESSOR
COMMERCE

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF COMMERCE

INDIVIDUAL WORKLOAD/TIME TABLE

YEAR 2022-23

Name of the Teacher:- -MIS.RITU SAHU ,JANBHAGIDARI TEACHER COMMERCE

Lecture Timing	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10.30 To 11.10						
11.10 To 11.50	B.COM.-III Theory Class	B.COM.-III Theory Class	B.COM.-III Theory Class	B.COM.-III Theory Class	B.COM.-III Theory Class	B.COM.-III Theory Class
11.50 To 12.30	B.COM.-III Theory Class	B.COM.-III Theory Class	B.COM.-III Theory Class	B.COM.-III Theory Class	B.COM.-III Theory Class	B.COM.-III Theory Class
12.30 To 01.10	B.COM.-II Theory Class	B.COM.-II Theory Class	B.COM.-II Theory Class	B.COM.-II Theory Class	B.COM.-II Theory Class	B.COM.-II Theory Class
01.10 To 01.50	B.COM.-I Theory Class	B.COM.-I Theory Class	B.COM.-I Theory Class	B.COM.-I Theory Class	B.COM.-I Theory Class	B.COM.-I Theory Class
01.50 To 02.30	B.COM.-I Theory Class	B.COM.-I Theory Class	B.COM.-I Theory Class	B.COM.-I Theory Class	B.COM.-I Theory Class	B.COM.-I Theory Class
02.30 To 03.10	B.COM.-II Theory Class	B.COM.-II Theory Class	B.COM.-II Theory Class	B.COM.-II Theory Class	B.COM.-II Theory Class	B.COM.-II Theory Class
03.10 To 03.50						
03.50 To 04.30						
04.30 To 05.10						

MIS. RITU SAHU
JANBHAGIDARI TEACHER
COMMERCE

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

DEPARTMENT OF HINDI

INDIVIDUAL WORKLOAD/TIME TABLE

YEAR 2022-23

Name of the Teacher:-MR. JAYPRAKASH VERMA, JANBHAGIDARI TEACHER HINDI

Lecture Timing	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10.30 To 11.10	B.A.-2 Theory Class	B.A. -2 Theory Class	B.A. -2 Theory Class			
11.10 To 11.50	M.A. HINDI-3 SEM	M.A. HINDI-3 SEM	M.A. HINDI-3 SEM	M.A. HINDI-3 SEM	M.A. HINDI-3 SEM	M.A. HINDI-3 SEM
11.50 To 12.30	B.A.-2 HINDI LITERATURE Theory Class	B.A.-2 HINDI LITERATURE Theory Class	B.A.-2 HINDI LITERATURE Theory Class	B.A.-2 HINDI LITERATURE Theory Class	B.A.-2 HINDI LITERATURE Theory Class	B.A.-2 HINDI LITERATURE Theory Class
12.30 To 01.10	M.A.-1 HINDI SEM	M.A.-1 HINDI SEM	M.A.-1 HINDI SEM	M.A.-1 HINDI SEM	M.A.-1 HINDI SEM	M.A.-1 HINDI SEM
01.10 To 01.50						
01.50 To 02.30	B.COM- 2 HINDI	B.COM- 2 HINDI	B.COM- 2 HINDI			
02.30 To 03.10						
03.10 To 03.50						
03.50 To 04.30						
04.30 To 05.10						

MR. JAYPRAKASH VERMA
JANBHAGIDHARI TEACHER
HINDI

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF HINDI

INDIVIDUAL WORKLOAD/TIME TABLE

YEAR 2022-23

Name of the Teacher:-VINOD VERMA, JANBHAGIDHARI TEACHER HINDI

Lecture Timing	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10.30 To 11.10	B.A.-1 Theory Class	B.A. -1 Theory Class	B.A. -1 Theory Class	B.A.-1 Theory Class	B.A.-1 Theory Class	B.A.-1 Theory Class
11.10 To 11.50						
11.50 To 12.30	M.A. HINDI-1 SEM	M.A. HINDI-1 SEM	M.A. HINDI-1 SEM	M.A. HINDI-1 SEM	M.A. HINDI-1 SEM	M.A. HINDI-1 SEM
12.30 To 01.10						
01.10 To 01.50	M.A.-3 HINDI SEM	M.A.-3 HINDI SEM	M.A.-3 HINDI SEM	M.A.-3 HINDI SEM	M.A.-3 HINDI SEM	M.A.-3 HINDI SEM
01.50 To 02.30						
02.30 To 03.10	B.A.-1 HINDI LITERATURE Theory Class	B.A.-1 HINDI LITERATURE Theory Class	B.A.-1 HINDI LITERATURE Theory Class	B.A.-1 HINDI LITERATURE Theory Class	B.A.-1 HINDI LITERATURE Theory Class	B.A.-1 HINDI LITERATURE Theory Class
03.10 To 03.50				B.SC.-1 HINDI THEORY CLASS	B.SC.-1 HINDI THEORY CLASS	B.SC.-1 HINDI THEORY CLASS
03.50 To 04.30		B.A.I T&S				
04.30 To 05.10						

MR. VINOD VERMA
JANBHAGIDHARI TEACHER
HINDI

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF HINDI

INDIVIDUAL WORKLOAD/TIME TABLE

YEAR 2022-23

Name of the Teacher:- K.D. DESHLAHRA , Assistant Professor- HINDI

Lecture Timing	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10.30 To 11.10						
11.10 To 11.50	M.A. Hindi I Sem. Theory class	M.A. Hindi I Sem. Theory class	M.A. Hindi I Sem. Theory class	M.A. Hindi I Sem. Theory class	M.A. Hindi I Sem. Theory class	M.A. Hindi I Sem. Theory class
11.50 To 12.30						
12.30 To 01.10	M.A. Hindi III Sem. Theory class	M.A. Hindi III Sem. Theory class	M.A. Hindi III Sem. Theory class	M.A. Hindi III Sem. Theory class	M.A. Hindi III Sem. Theory class	M.A. Hindi III Sem. Theory class
01.10 To 01.50	B.A. III Theory class	B.A. III Theory class	B.A. III Theory class	B.A. III Theory class	B.A. III Theory class	B.A. III Theory class
01.50 To 02.30						
02.30 To 03.10						
03.10 To 03.50	B.Com. III Theory class	B.Com. III Theory class	B.Com. III Theory class	B.Com. III Theory class	B.Com. III Theory class	B.Com. III Theory class
03.50 To 04.30						
04.30 To 05.10						

DR. K. D. DESHLAHRA
ASSISTANT PROFESSOR
HINDI

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

DEPARTMENT OF CHEMISTRY

COURSE COMPLETION REPORT

ACADEMIC YEAR 2022-23

This is to certify that I, the undersigned, have completed the following course assigned to me during the academic year 2022-23

Sr.No.	Name of the Course	Class	Division
1.	**PAPER I - INORGANIC CHEMISTRY** UNIT-I A. ATOMIC STRUCTURE B. PERIODIC PROPERTIES UNIT-II CHEMICAL BONDING I UNIT-III CHEMICALBONDING II UNIT-IV A. s-BLOCK ELEMENTS B. p-BLOCK ELEMENTS UNIT-V A CHEMISTRY OF NOBLE GASES B. p-BLOCK ELEMENTS UNIT-V A CHEMISTRY OF NOBLE GASES B. THEORETICAL PRINCIPLES IN QUALITATIVE ANALYSIS (H2S SCHEME)	**B.Sc- 1**	
2.	**PAPER: II ORGANIC CHEMISTRY**		

	UNIT-I BASICS OF ORGANIC CHEMISTRY
	UNIT-II INTRODUCTION TO STEREOCHEMISTRY
	UNIT-III CONFORMATIONAL ANALYSIS OF ALKANES
	UNIT-IV CHEMISTRY OF ALIPHATIC HYDROCARBONS
	   A. Carbon-Carbon sigma (σ) bonds
	   B. Carbon-Carbon Pi (л) bonds:
	UNIT-V AROMATIC HYDROCARBONS		

3.	**PAPER - III PHYSICAL CHEMISTRY**		
	UNIT-I MATHEMATICAL CONCEPTS FOR CHEMIST UNIT-II GASEOUS STATE CHEMISTRY UNIT-III A. LIQUID STATE CHEMISTRY B. COLLOIDS and SURFACE CHEMISTRY UNIT-IV SOLID STATE CHEMISTRY UNIT-V A. CHEMICAL KINETICS B. CATALYSIS		
4.	**PAPER - IV LABOBATORY COURSE**	**B.Sc- 1**	
5.	**Paper – I INORGANIC CHEMISTRY**	**B.Sc- 2**	
	UNIT-I CHEMISTRY OF TRANSITION SERIES ELEMENTS UNIT-II A. OXIDATION AND REDUCTION: B. COORDINATION COMPOUNDS: UNIT-III COORDINATION CHEMISTRY		

	UNIT-IV A. CHEMISTRY OF LANTHANIDE ELEMENTS B. CHEMISTRY OF ACTINIDES UNIT-V A. ACIDS BASES B. NON-AQUEOUS SOLVENTS		
6.	**Paper – II ORGANIC CHEMISTRY**		
	UNIT-I CHEMISTRY OF ORGANIC HALIDES UNIT-II ALCOHOLS, PHENOLS, UNIT-III ALDEHYDES AND KETONES UNIT-IV A. CARBOXYLIC ACIDS B. CARBOXYLIC ACID DERIVATIVES UNIT-V ORGANIC COMPOUNDS OF NITROGEN		
7.	**Paper – III PHYSICAL CHEMISTRY**		
	UNIT-I A. THERMODYNAMICS-I B. THERMO CHEMISTRY UNIT-II A. THERMODYNAMICS-II UNIT III A CHEMICAL EQUILIBRIUM B IONIC EQUILIBRIA UNIT-IV PHASE EQUILIBRIUM UNIT V PHOTOCHEMISTRY		
8.	**Paper –IV LABORATORY COURSE**		
9.	**Paper – I INORGANIC CHEMISTRY**		
	UNIT-I METAL-LIGAND BONDING IN TRANSITION METAL COMPLEXES UNIT-II MAGNETIC PROPERTIES OF TRANSITION METAL COMPLEXES UNIT-III ORGANOMETALLIC CHEMISTRY UNIT-IV BIOINORGANIC CHEMISTRY UNIT-V HARD AND SOFT ACIDS AND BASES (HSAB) INORGANIC POLYMERS	**B.Sc- 3**	
10.	**Paper – II ORGANIC CHEMISTRY**		
	UNIT-I HETEROCYCLIC COMPOUNDS UNIT II A. ORGANOMETALLIC REAGENT B. ORGANIC SYNTHESIS VIA ENOLATES UNIT-III BIOMOLECULES A. CARBOHYDRATES B. AMINO ACIDS, PROTEINS AND NUCLEIC ACIDS UNIT-IV SYNTHETIC POLYMERS UNIT-V A. INFRA-RED SPECTROSCOPY B. UV-VISIBLE SPECTROSCOPY C. NMR SPECTROSCOPY		
11.	**Paper – III PHYSICAL CHEMISTRY**		
	UNIT-I QUANTUM MECHANICS–I UNIT-II A. QUANTUM MECHANICS–II UNIT III SPECTROSCOPY UNIT-IV ELECTROCHEMISTRY-I UNIT-V ELECTROCHEMISTRY-II		
12.	**B.Sc. Part- III PRACTICAL**		

SMT. PRITI KHURSAIL
ASSISTANT PROFESSOR- CHEMISTRY

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

DEPARTMENT OF CHEMISTRY

COURSE COMPLETION REPORT

ACADEMIC YEAR 2022-23

This is to certify that I, the undersigned, have completed the following course assigned to me during the academic year 2022-23

Sr.No.	Name of the Course	Class	Division
13.	**PAPER I - INORGANIC CHEMISTRY** UNIT-I A. ATOMIC STRUCTURE B. PERIODIC PROPERTIES UNIT-II CHEMICAL BONDING I UNIT-III CHEMICALBONDING II UNIT-IV A. s-BLOCK ELEMENTS B. p-BLOCK ELEMENTS UNIT-V A CHEMISTRY OF NOBLE GASES B. p-BLOCK ELEMENTS UNIT-V A CHEMISTRY OF NOBLE GASES B. THEORETICAL PRINCIPLES IN QUALITATIVE ANALYSIS (H2S SCHEME)	B.Sc- 1	
14.	**PAPER: II ORGANIC CHEMISTRY**		

	UNIT-I BASICS OF ORGANIC CHEMISTRY
	UNIT-II INTRODUCTION TO STEREOCHEMISTRY
	UNIT-III CONFORMATIONAL ANALYSIS OF ALKANES
	UNIT-IV CHEMISTRY OF ALIPHATIC HYDROCARBONS
	   C. Carbon-Carbon sigma (σ) bonds
	   D. Carbon-Carbon Pi (π) bonds:
	UNIT-V AROMATIC HYDROCARBONS		

15.	**PAPER - III PHYSICAL CHEMISTRY**		
	UNIT-I MATHEMATICAL CONCEPTS FOR CHEMIST UNIT-II GASEOUS STATE CHEMISTRY UNIT-III A. LIQUID STATE CHEMISTRY B. COLLOIDS and SURFACE CHEMISTRY UNIT-IV SOLID STATE CHEMISTRY UNIT-V A. CHEMICAL KINETICS B. CATALYSIS		
16.	**PAPER - IV LABOBATORY COURSE**	**B.Sc- 1**	
17.	**Paper – I INORGANIC CHEMISTRY**		
	UNIT-I CHEMISTRY OF TRANSITION SERIES ELEMENTS UNIT-II A. OXIDATION AND REDUCTION: B. COORDINATION COMPOUNDS: UNIT-III COORDINATION CHEMISTRY UNIT-IV A. CHEMISTRY OF LANTHANIDE ELEMENTS B. CHEMISTRY OF ACTINIDES	**B.Sc- 2**	

	UNIT-V A. ACIDS BASES B. NON-AQUEOUS SOLVENTS		
18.	**Paper – II ORGANIC CHEMISTRY**		
	UNIT-I CHEMISTRY OF ORGANIC HALIDES UNIT-II ALCOHOLS, PHENOLS, UNIT-III ALDEHYDES AND KETONES UNIT-IV A. CARBOXYLIC ACIDS B. CARBOXYLIC ACID DERIVATIVES UNIT-V ORGANIC COMPOUNDS OF NITROGEN		
19.	**Paper – III PHYSICAL CHEMISTRY**		
	UNIT-I A. THERMODYNAMICS-I B. THERMO CHEMISTRY UNIT-II A. THERMODYNAMICS-II UNIT III A CHEMICAL EQUILIBRIUM B IONIC EQUILIBRIA UNIT-IV PHASE EQUILIBRIUM UNIT V PHOTOCHEMISTRY		
20.	**Paper –IV LABORATORY COURSE**		
21.	**Paper – I INORGANIC CHEMISTRY**		
	UNIT-I METAL-LIGAND BONDING IN TRANSITION METAL COMPLEXES UNIT-II MAGNETIC PROPERTIES OF TRANSITION METAL COMPLEXES UNIT-III ORGANOMETALLIC CHEMISTRY UNIT-IV BIOINORGANIC CHEMISTRY UNIT-V HARD AND SOFT ACIDS AND BASES (HSAB) INORGANIC POLYMERS	**B.Sc- 3**	
22.	**Paper – II ORGANIC CHEMISTRY**		
	UNIT-I HETEROCYCLIC COMPOUNDS UNIT II A. ORGANOMETALLIC REAGENT B. ORGANIC SYNTHESIS VIA ENOLATES UNIT-III BIOMOLECULES A. CARBOHYDRATES B. AMINO ACIDS, PROTEINS AND NUCLEIC ACIDS UNIT-IV SYNTHETIC POLYMERS UNIT-V A. INFRA-RED SPECTROSCOPY B. UV-VISIBLE SPECTROSCOPY C. NMR SPECTROSCOPY		
23.	**Paper – III PHYSICAL CHEMISTRY**		
	UNIT-I QUANTUM MECHANICS–I UNIT-II A. QUANTUM MECHANICS–II UNIT III SPECTROSCOPY UNIT-IV ELECTROCHEMISTRY-I UNIT-V ELECTROCHEMISTRY-II		
24.	**B.Sc. Part- III PRACTICAL**		

SMT. PRITI KHURSAIL
ASSISTANT PROFESSOR- CHEMISTRY

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF PHYSICS
COURSE COMPLETION REPORT
ACADEMIC YEAR 2022-23

This is to certify that I, the undersigned, have completed the following course assigned to me during the academic year 2022-23

S.No.	Name of the Course	Class	Division
1	PAPER-I MECHANICS, OSCILLATIONS AND PROPERTIES OF MATTER	B.SC. I	
2	PAPER-II ELECTRICITY, MAGNETISM, ELECTROMAGNETIC THEORY	B.SC. I	
3	PAPER-I THERMODYNAMICS, KINETIC THEORY AND STATISTICAL	B.SC. II	
4	PAPER-II WAVES, ACOUSTIC, OPTICS	B.SC. II	
5	PAPER-I RELATIVITY, QUANTUM, MECHANICS, ATOMIC, NUCLEAR	B.SC. III	
6	PAPER-II SOLID STATE PHYSICS, SOLID STATE DEVICS	B.SC. III	
7	PRACTICAL PAPER-III	B.SC. I	
8	PRACTICAL PAPER-III	B.SC. II	
9	PRACTICAL PAPER-III	B.SC. III	

MS. SANDHYA VERMA
GEUST LECTURER
PHYSICS

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

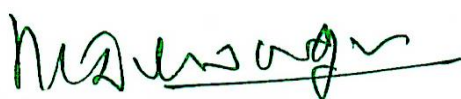# GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF ZOOLOGY

COURSE COMPLETION REPORT

ACADEMIC YEAR 2022-23

This is to certify that I, the undersigned, have completed the following course assigned to me during the academic year 2022-23

S.No.	Name of the Course	Class	Division
1	Paper – I (Unit- I to V)	B.Sc.I	
2	Paper – II (Unit- I to V)	B.Sc.I	
3	Paper – I(Unit- I to V)	B.Sc.II	
4	Paper – II(Unit- I to V)	B.Sc.II	
5	Paper – I(Unit- I to V)	B.Sc.III	
6	Paper – II(Unit- I to V)	B.Sc.III	
7	Practical Paper -III	B.Sc.I	
8	Practical Paper -III	B.Sc.II	
9	Practical Paper -III	B.Sc.III	

MR. S.N. KAMDI
ASSISTANT PROFESSOR
ZOOLOGY

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF MATHEMATICS
COURSE COMPLETION REPORT
ACADEMIC YEAR 2022-23

This is to certify that I, the undersigned, have completed the following course assigned to me during the academic year 2022-23

S.No.	Name of the Course	Class	Division
1	Paper – I ALGABRA AND TRIGONOMETRI	B.SC.I	
2	Paper – II CALCULUS	B.SC.I	
3	Paper – II VECTOR ANALYSIS AND GEOMATRICS	B.SC.I	
4	Paper – II ADVANCED CALEULUS	B.SC.II	
5	Paper – II DIFFERENTIAL EQUATION	B.SC.II	
6	Paper – II MECHANICS	B.SC.II	
7	Practical Paper –III ANALYSIS	B.SC.III	
8	Practical Paper –III ABSTRACT ALGEBRA	B.SC.III	
9	Practical Paper –III DISCRETE MATHEMATICS	B.SC.III	
10	BUSINESS MATHEMATICS	B.COM.I	

SMT. VARSHA SAHU
GEUST LECTURER
MATHEMATICS

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF BOTANY

COURSE COMPLETION REPORT

ACADEMIC YEAR 2022-23

This is to certify that I, the undersigned, have completed the following course assigned to me during the academic year 2022-23

S.No.	Name of the Course	Class	Division
1	PAPER- I UNIT (I TO IV)	B.SC-I	
2	PAPER- II UNIT (I TO IV)	B.SC-I	
3	PAPER- I UNIT (I TO IV)	B.SC-II	
4	PAPER- II UNIT (I TO IV)	B.SC-II	
5	PAPER- I UNIT (I TO IV)	B.SC-III	
6	PAPER- II UNIT (I TO IV)	B.SC-III	
7	PRACTICAL PAPER- III	B.SC-I	
8	PRACTICAL PAPER- III	B.SC-II	
9	PRACTICAL PAPER- III	B.SC-III	

MR. DEWANAND BANDHE
GEUST LECTURER
BOTANY

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

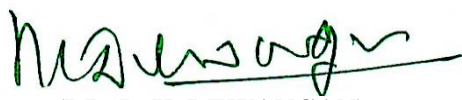# GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF POLITICAL SCIENCE

COURSE COMPLETION REPORT

ACADEMIC YEAR 2022-23

This is to certify that I, the undersigned, have completed the following course assigned to me during the academic year 2022-23

S.No.	Name of the Course	Class	Division
1	**PAPER-I** **POLITICAL THEORY**	**B.A.I**	
2	**PAPER-II** **INDIAN GOVT. AND POLITICS**	**B.A.I**	
3	**PAPER-I** **POLITICAL THOUGHT**	**B.A.II**	
4	**PAPER-II** **COMPURATIVE GOVT.** **POLITICS**	**B.A.II**	
5	**PAPER-I** **PUBLIC ADMINISTRATION**	**B.A.III**	
6	**PAPER-II** **INTERNATIONAL POLITICS** **FOREIGN POLICY OF INDIA**	**B.A. III**	

SMT. YOGITA BANJARE
GUEST LECTURER
POLITICAL SCIENCE

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF HISTROY

COURSE COMPLETION REPORT

ACADEMIC YEAR 2022-23

This is to certify that I, the undersigned, have completed the following course assigned to me during the academic year 2022-23

S.No.	Name of the Course	Class	Division
1	PAPER-I HISTORY OF INDIA (UNIT I TO V)	B.A.I	
2	PAPER-II HISTORY OF WORLD (UNIT I TO V)	B.A.I	
3	PAPER-I HISTORY OF INDIA (UNIT I TO V)	B.A.II	
4	PAPER-II HISTORY OF WORLD (UNIT I TO V)	B.A.II	
5	PAPER-I HISTORY OF INDIA	B.A.III	
6	PAPER-II	B.A. III	

MR. DEEPAK VERMA
ASSISTANT PROFESSOR
HISTORY

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF SOCIOLOGY

COURSE COMPLETION REPORT

ACADEMIC YEAR 2022-23

This is to certify that I, the undersigned, have completed the following course assigned to me during the academic year 2022-23

S.No.	Name of the Course	Class	Division
1	**PAPER-I INTRODUCATION OF SOCIOLOGY (UNIT I TO V)**	**B.A.I**	
2	**PAPER-II CONTEMPORARY INDIAN SOCIETY (UNIT I TO V)**	**B.A.I**	
3	**PAPER-I SOCIOLOGY OF TRIBAL SOCIETY (UNIT I TO V)**	**B.A.II**	
4	**PAPER-II CRIME AND SOCIETY (UNIT I TO V)**	**B.A.II**	
5	**PAPER-I BASICS OF SOCIAL THINKERS**	**B.A.III**	
6	**PAPER-II SOCIAL RESEARCH METHODOLOGY**	**B.A. III**	

DR. B. K. DEWANGAN
SOCIOLOGY

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF ECONOMICS
COURSE COMPLETION REPORT
ACADEMIC YEAR 2022-23

This is to certify that I, the undersigned, have completed the following course assigned to me during the academic year 2022-23

S.No.	Name of the Course	Class	Division
1	PAPER-I MICRO ECONOMICS (UNIT I TO V)	B.A.I	
2	PAPER-II INDIAN ECONOMY (UNIT I TO V)	B.A.I	
3	PAPER-I MACRO ECONOMICS (UNIT I TO V)	B.A.II	
4	PAPER-II MONEY, BANKING, AND PUBLIC FINANCE (UNIT I TO V)	B.A.II	
5	PAPER-I DEVLOPMENT AND ENVIROMENTAL ECONOMICS (UNIT I TO V)	B.A.III	
6	PAPER-II STATISTICAL METHODS (UNIT I TO V)	B.A. III	
7	PAPER-II BUSINESS ECONOMICS (UNIT I TO V)	B.COM I	
8	PAPER-I BUSINESS STATISTICS (UNIT I TO V)	B.COM II	

DR. ROSHAN PRASHAD
ASSISTANT PROFESSOR
ECONOMICS

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF COMMERCE

COURSE COMPLETION REPORT

ACADEMIC YEAR 2022-23

This is to certify that I, the undersigned, have completed the following course assigned to me during the academic year 2022-23

S.No.	Name of the Course	Class	Division
1	**PAPER-I** **FINANCIAL ACCOUNTING** **(UNIT I TO V)**	**B.COM I**	
2	**PAPER-II** **BUSS.REG. FRAMEWORK** **(UNIT I TO V)**	**B.COM I**	
3	**PAPER-I** **CORPORATE ACCOUNTING** **(UNIT I TO V)**	**B.COM II**	
4	**PAPER-II** **COMPANY LAW** **(UNIT I TO V)**	**B.COM II**	
5	**PAPER-I** **INCOME TAX** **(UNIT I TO V)**	**B.COM III**	
6	**PAPER-II** **ACCOUNTING** **(UNIT I TO V)**	**B.COM III**	

DR. SATYADEV TRIPATHI
ASSITANT PROFESSOR
COMMERCE

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF COMMERCE

COURSE COMPLETION REPORT

ACADEMIC YEAR 2022-23

This is to certify that I, the undersigned, have completed the following course assigned to me during the academic year 2022-23

S.No.	Name of the Course	Class	Division
1	**PAPER-I** **Business communication** **(UNIT I TO V)**	**B.COM I**	
2	**PAPER-II** **Business environment** **(UNIT I TO V)**	**B.COM I**	
3	**PAPER-I** **Cost writing** **(UNIT I TO V)**	**B.COM II**	
4	**PAPER-II** **Principal of mangement** **(UNIT I TO V)**	**B.COM II**	
5	**PAPER-I** **Managerial Accounting** **(UNIT I TO V)**	**B.COM III**	
6	**PAPER-II** **Indirect tax G.S.T. including** **(UNIT I TO V)**	**B.COM III**	

MIS. RITU SAHU
JANBHAGIDARI TEACHER
COMMERCE

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF HINDI

COURSE COMPLETION REPORT

ACADEMIC YEAR 2022-23

This is to certify that I, the undersigned, have completed the following course assigned to me during the academic year 2022-23

S.No.	Name of the Course	Class	Division
1	**PAPER-I** प्राचीनहिंदीकाव्य	**B.A.II**	
2	**PAPER-II** हिंदीनिबंध तथाविधाएंअन्य गद्य	**B.A.II**	
3	**PAPER-I** आदिकाल एवंपूर्व मध्यकाल	**M.A.I Sem**	
4	**PAPER-IIII** भारतीय साहित्य	**M.A.III Sem**	
5	आधारपाठ्यक्रमहिंदीभाषा	**B.A.II**	
6	आधार पाठ्य क्रम हिंदी भाषा	**B.SC. II**	
7	आधार पाठ्य क्रम हिंदी भाषा	**B.COM. I**	

MR. JAYPRAKASH VERMA
JANBHAGIDHARI TEACHER
HINDI

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email : govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

DEPARTMENT OF   HINDI

COURSE COMPLETION REPORT

ACADEMIC YEAR 2022-23

This is to certify that I, the undersigned, have completed the following course assigned to me during the academic year 2022-23

S.No.	Name of the Course	Class	Division
1	HINDI LITERATURE (UNIT – I TO V) PAPER-I PRACHIN HINDI KAVYA PAPER- II HINDI KATHAN SAHITY	B.A.I	
3	AADHUNIK HINDI KAVYAI- I	M.A.I Sem	
4	AADHUNIK HINDI KAVYAI- II	M.A.II Sem	
5	KAMKAYI HINDI AVM	M.A.III Sem	
6	MEDIA LEKHAN	M.A.IV Sem	
7	HINDI LANGUAGE	B.COM. I	
8	HINDI LANGUAGE	B.SC.-I	
9			

MR. VINOD VERMA   (DR. B. K. DEWANGAN)
JANBHAGIDHARI TEACHER   PRINCIPAL
HINDI   GOVT. RANI AVANTI BAI LODHI COLLEGE,
                                            GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com Phone – 07744-296940college code-1904

DEPARTMENT OF HINDI

COURSE COMPLETION REPORT

ACADEMIC YEAR 2022-23

This is to certify that I, the undersigned, have completed the following course assigned to me during the academic year 2022-23

S.No.	Name of the Course	Class	Division
1	**PAPER-I** प्राचीन हिंदी काव्य	**B.A.II**	
2	**PAPER-II** हिंदी निबंध तथा विधाएं अन्य गद्य	**B.A.II**	
3	**PAPER-I** आदिकाल एवं पूर्व मध्यकाल	**M.A.I Sem**	
4	**PAPER-III** भारतीय साहित्य	**M.A.III Sem**	
5	आधार पाठ्यक्रम हिंदी भाषा	**B.A.II**	
6	आधार पाठ्यक्रम हिंदी भाषा	**B.SC. II**	
7	आधार पाठ्यक्रम हिंदी भाषा	**B.COM. I**	

DR. K.D. DESHLAHARA
ASSISTANCE PROFESSOR
HINDI

(DR. B. K. DEWANGAN)
PRINCIPAL
GOVT. RANI AVANTI BAI LODHI COLLEGE,
GHUMKA, DISTT.-RAJNANDGAON (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

LECTURE/TEACHING PLAN

B.Sc. – I YEAR   YEAR 2022-23

Name of the teacher   :   **Mrs. PRITI KHURSHAIL**

Department   :   **CHEMISTRY**

Subject/Paper   :   INORGANIC CHEMISTRY (PAPER:I)

                                                   ORGANIC CHEMISTRY(PAPER: II)

                                                   PHYSICAL CHEMISTRY(PAPER: III)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022	21	**A. ATOMIC STRUCTURE** Bohr's theory, its limitation and atomic spectrum of hydrogen atom. General idea of de-Broglie matter-waves, Heisenberg uncertainty principle, Schrödinger wave equation, significance of Ψ and $\Psi 2$, radial & angular wave functions and probability distribution curves, quantum numbers, Atomic orbital and shapes of s, p, d orbitals, Aufbau and Pauli exclusion principles, Hund's Multiplicity rule, electronic configuration of the elements.	7
		B. PERIODIC PROPERTIES Detailed discussion of the following periodic properties of the elements, with reference to s and pblock. Trends in periodic table and applications in predicting and explaining the chemical behavior. a) Atomic and ionic radii, b) Ionization enthalpy, c) Electron gain enthalpy, d) Electronegativity, Pauling's, Mulliken's, Allred Rochow's scales. e) Effective nuclear charge, shielding or screening effect, Slater rules, variation of effective nuclear charge in periodic table.	7
		BASICS OF ORGANIC CHEMISTRY Hybridization, Shapes of molecules, Influence of hybridization on bond properties. Electronic Displacements: Inductive, electromeric, resonance and mesomeric effects, hyperconjugation and their applications; Dipole moment. Electrophiles and Nucleophiles; Nucleophilicity and basicity; Homolytic and Heterolytic cleavage, Generation, shape and relative stability of Carbocations, Carbanions, Free radicals, Carbenes and Nitrenes. Introduction to types of organic reactions: Addition, Elimination and Substitution reactions.	7

				5
September 2022	**25**		**MATHEMATICAL CONCEPTS FOR CHEMIST** Basic Mathematical Concepts: Logarithmic relations, curve sketching, linear graphs, Properties of straight line, slope and intercept, Functions, Differentiation of functions, maxima and minima; integrals; ordinary differential equations; vectors and matrices; determinants; Permutation and combination and probability theory, Significant figures and their applications.	**7**
			CHEMICAL BONDING I **Ionic bond:** Ionic Solids - Ionic structures, radius ratio & co-ordination number, limitation of radius ratio rule, lattice defects, semiconductors, lattice energy Born-Haber cycle, Solvation energy and solubility of ionic solids, polarising power & polarisabilitry of ions, Fajans rule, Ionic character in covalent compounds: Bond moment and dipole moment, Percentage ionic character from dipole moment and electronegatiity difference, Metallic bond-free electron, Valence bond & band theories.	**9**
			Optical Isomerism: Optical Activity, Specific Rotation, Chirality/Asymmetry, Enantiomers, Molecules with two or more chiral-centres, Diastereoisomers, meso compounds, Relative and absolute configuration: Fischer, Newmann and Sawhorse Projection formulae and their interconversions; Erythrose and threose, D/L, d/l system of nomenclature, Cahn-Ingold-Prelog system of nomenclature (C.I.P rules), R/S nomenclature. Geometrical isomerism: cis–trans, synanti and E/Z notations.	
			GASEOUS STATE CHEMISTRY Kinetic molecular model of a gas: postulates and derivation of the kinetic gas equation; collision frequency; collision diameter; mean free path; 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. Joule Thomson effect, Liquification of Gases. Behaviour of real gases: Deviations from ideal gas behaviour, compressibility factor (Z), and its variation with pressure and temperature for different gases. Causes of deviation from ideal behaviour. van der Waals equation of state, its derivation and application in explaining real gas behaviour, calculation of Boyle temperature. Isotherms of real gases and their comparison with van der Waals isotherms, continuity of states, critical state, relation between critical constants and van der Waals constants, law of corresponding states.	**9**
October 2022	**20**		**CHEMICALBONDING II** **Covalent bond:** Lewis structure, Valence bond theory and its limitations, Concept of hybridization, Energetics of hybridization, equivalent and non-equivalent hybrid orbitals. Valence shell electron pair repulsion theory (VSEPR), shapes of the following simple molecules and ions containing lone pairs and bond pairs of electrons: H_2O, NH_3, PCl_3, PCl_5, SF_6. H_3O^+, SF_4, ClF_3, and ICl_2 - Molecular orbital theory. Bond order and bond strength, Molecular orbital diagrams of diatomic and	**5**

		simple polyatomic molecules N2, O2, F2, CO, NO.	
		CONFORMATIONAL ANALYSIS OF ALKANES Conformational analysis of alkanes, ethane, butane, cyclohexane and sugars. Relative stability and Energy diagrams. Types of cycloalkanes and their relative stability, Baeyer strain theory: Theory of strainless rings, Chair, Boat and Twist boat conformation of cyclohexane with energy diagrams; Relative stability of mono-substituted cycloalkanes and disubstituted cyclohexane.	5
		LIQUID STATE CHEMISTRY Intermolecular forces, magnitude of intermolecular force, structure of liquids, Properties of liquids, viscosity and surface tension.	5
		COLLOIDS and SURFACE CHEMISTRY Classification, Optical, Kinetic and Electrical Properties of colloids, Coagulation, Hardy Schulze law, flocculation value, Protection, Gold number, Emulsion, micelles and types, Gel, Syneresis and thixotrophy, Application of colloids. Physical adsorption, chemisorption, adsorption isotherms (Langmuir and Freundlich). Nature of adsorbed state. Qualitative discussion of BET.	5
November 2022	23	**A. s-BLOCK ELEMENTS** General concepts on group relationships and gradation properties, Comparative study, salient features of hydrides, solvation & complexation tendencies including their function in biosystems and introduction to alkyl & aryls, Derivatives of alkali and alkaline earth metals **B. p-BLOCK ELEMENTS** General concepts on group relationships and gradation properties. Halides, hydrides, oxides and oxyacids of Boron, Aluminum, Nitrogen and Phosphorus. Boranes, borazines, fullerenes, graphene and silicates, interhalogens and pseudohalogens.	8
		A. Carbon-Carbon sigma (σ) bonds Chemistry of alkanes: Formation of alkanes, Wurtz Reaction, Wurtz-Fittig Reaction, Free radical substitutions: Halogenation-relative reactivity and selectivity. **B. Carbon-Carbon Pi (л) bonds:** Formation of alkenes and alkynes by elimination reactions, Mechanism of E1, E2, E1cb reactions. Saytzeff and Hofmann eliminations.	2
		SOLID STATE CHEMISTRY 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. Crystal defects.	8
December 2022	26	**A CHEMISTRY OF NOBLE GASES** Chemical properties of the noble gases, chemistry of xenon, structure, bonding in xenon compounds **B. THEORETICAL PRINCIPLES IN QUALITATIVE ANALYSIS (H2S SCHEME)** Basic principles involved in the analysis of cations and anions and solubility products, common ion effect. Principles involved in separation of cations into groups and choice of group reagents. Interfering	9

		anions (fluoride, borate, oxalate and phosphate) and need to remove them after Group II.	
		AROMATIC HYDROCARBONS Aromaticity: Hückel'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. Directive effects of the groups.	8
		A. CHEMICAL KINETICS Rate of reaction, Factors influencing rate of reaction, rate law, rate constant, Order and molecularity of reactions, rate determining step, Zero, First and Second order reactions, Rate and Rate Law, methods of determining order of reaction, Chain reactions. Temperature dependence of reaction rate, Arrhenius theory, Physical significance of Activation energy, collision theory, demerits of collision theory, non mathematical concept of transition state theory.	9
January 2023	25	**B. CATALYSIS** Homogeneous and Heterogeneous Catalysis, types of catalyst, characteristic of catalyst, Enzyme catatysed reactions, Micellar catatysed reactions, Industrial applications of Catalysis.	10
		Revision, Test, Home Work	15
February 2023	23	**PRACTICAL EXAMINATION** Three experiments are to be performed	
		1. Inorganic Mixture Analysis, four radicals two basic & two acid (excluding insoluble, Interfering & combination of acid radicals) OR Two Titrations (Acid-Bases,Redox and Iodo/Iodimetry)	10
		2. Detection of functional group in the given organic compound and determine its MPt/BPt. **O R** Crystallization of any one compound as given in the prospectus along with the Determination of mixed MPt. **O R** Decolorisation of brown sugar along with sublimation of camphor/ Naphthlene	8
		3. Any one physical experiment that can be completed in two hours including calculations	3
		4. Viva	2
		5. Sessionals In case of Ex-Students two marks will be added to each of the experiments	

Department of Chemistry
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com
Phone – 07744-296940college code-1904

LECTURE/TEACHING PLAN

B.Sc. – II YEAR   YEAR 2022-23

Name of the teacher   :   **Mrs. PRITI KHURSHAIL**

Department   :   **CHEMISTRY**

Subject/Paper   :   INORGANIC CHEMISTRY (PAPER:I)

                                                 ORGANIC CHEMISTRY(PAPER: II)

                                                 PHYSICAL CHEMISTRY(PAPER: III)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022	21	**CHEMISTRY OF TRANSITION SERIES ELEMENTS** Transition Elements: Position in periodic table, electronic configuration, General Characteristics, viz., atomic and ionic radii, variable oxidation states, ability to form complexes, formation of coloured ions, magnetic moment μso (spin only) and μeff and catalytic behaviour. General comparative treatment of 4d and 5d elements with their 3d analogues with respect to ionic radii, oxidation states and magnetic properties.	7
		CHEMISTRY OF ORGANIC HALIDES Alkyl halides: Methods of preparation, nucleophilic substitution reactions – SN1, SN2 and SN i mechanisms with stereochemical aspects and effect of solvent etc.; nucleophilic substitution, elimination reactions. Aryl halides: Preparation, including preparation from diazonium salts, Nucleophilic Aromatic Substitution; SNAr, Benzyne mechanism. Relative reactivity of alkyl, allyl/benzyl, vinyl and aryl halides towards nucleophilic substitution reactions.	7
		. **THERMODYNAMICS-I** Intensive and extensive variables; state and path functions; isolated, closed and open systems; Zeroth law of thermodynamics. First law: Concept of heat, work, internal energy and statement of first law; enthalpy, Relation between heat capacities, calculations of q, w, U and H for reversible, irreversible and free expansion of gases under isothermal and adiabatic conditions. Joule-Thomson expansion, inversion temperature of gases, expansion of ideal gases under isothermal and adiabatic condition	7
September 2022	25	**A. OXIDATION AND REDUCTION:** Redox potential, electrochemical series and its applications, Principles involved in extraction of the elements. **B. COORDINATION COMPOUNDS:** Werner's theory and its experimental verification, IUPAC nomenclature of coordination compounds, isomerism in coordination compounds.	8

		Stereochemistry of complexes with 4 and 6 coordination numbers. Chelates, polynuclear complexes.	
		ALCOHOLS **A. Alcohols:** Nomenclature, preparation, properties and relative reactivity of 1°, 2°, 3° alcohols, Bouvaelt-Blanc Reduction for the preparation of alcohols, Dihydric alcohols – methods of formation, chemical reactions of vicinal glycols, oxidative cleavage [Pb(OAc)4 and HIO4] and pinacol-pinacolone rearrangement. **B. Trihydric alcohols -** Nomenclature, methods of formation, chemical reactions of glycerol.	4 4
		PHENOLS **A.** Structure and bonding in phenols, physical properties and acidic character, Comparative acidic strength of alcohols and phenols, acylation and carboxylation. **B.** Mechanism of Fries rearrangement, Claisen rearrangement, Gatterman synthesis, Hauben-Hoesh reaction, Lederer-Manasse reaction and Reimer-Tiemann reaction.	
		A. THERMODYNAMICS-II Second Law of Thermodynamics: Spontaneous process, Second law, Statement of Carnot cycle and efficiency of heat engine, Carnot's theorem, thermodynamic state of temperature. Concept of entropy: Entropy change in a reversible and irreversible process, entropy change in isothermal reversible expansion of an ideal gas, entropy change in isothermal mixing of ideal gases, physical signification of entropy, Molecular and statistical interpretation of entropy. B. Gibbs and Helmholtz free energy, variation of G and A with pressure, volume, temperature, Gibbs-Helmholtz equation, Maxwell relations, Elementary idea of Third law of Thermodynamics, concept of residual entropy, calculation of absolute entropy of molecule.	9
October 2022	**20**	**COORDINATION CHEMISTRY** Valence bond theory (inner and outer orbital complexes), electroneutrality principle and back bonding. Crystal field theory, Crystal field splitting and stabilization energy, measurement of 10 Dq (Δo), CFSE in weak and strong fields, pairing energies, factors affecting the magnitude of 10 Dq (Δo, Δt). Octahedral vs. tetrahedral coordination.	5
		ALDEHYDES AND KETONES **A.** Nomenclature, structure and reactivity of carbonyl group. General methods of preparation of aldehydes and ketones. Mechanism of nucleophilic addition to carbonyl groups: Benzoin, Aldol, Perkin and Knoevenagel condensation. Condensation with ammonia and its derivatives, Wittig reaction, Mannich reaction, Beckmann and Benzil- Benzilic rearrangement. **B.** Use of acetate as protecting group, Oxidation of aldehydes, Baeyer-Villiger oxidation of ketones, Cannizzaro reaction, MPV, Clemmensen reduction, Wolf-Kishner reaction, LiAlH4 and NaBH4 reduction. Halogenation of enolizable ketones, An introduction to α,β-unsaturated aldehydes and ketones.	5
		A. CHEMICAL EQUILIBRIUM Criteria of thermodynamic equilibrium, degree of advancement of reaction, chemical equilibria in ideal gases. Concept of Fugacity, Thermodynamic derivation of relation between Gibbs free energy of reaction and reaction quotient. Coupling of exergonic and endergonic reactions. Equilibrium	5

			constants and their quantitative dependence on temperature, pressure and concentration. Thermodynamic derivation of relations between the various equilibrium constants Kp, Kc and Kx. Le Chatelier principle (quantitative treatment). Equilibrium between ideal gas and a pure condensed phase.	
			B. IONIC EQUILIBRIA Ionization of weak acids and bases, pH scale, common ion effect; dissociation constants of mono protic acids (exact treatment). Salt hydrolysis- calculation of hydrolysis constant, degree of hydrolysis and pH for different salts. Buffer solutions; derivation of Henderson equation and its applications. Solubility and solubility product of sparingly soluble salts – applications of solubility product principle.	5
November 2022	23		**A. CHEMISTRY OF LANTHANIDE** ELEMENTS Electronic structure, oxidation states and ionic radii and lanthanide contraction, complex formation, occurrence and isolation, lanthanide compounds.	5
			B. CHEMISTRY OF ACTINIDES General features and chemistry of actinides, chemistry of separation of Np, Pu and Am from uranium, similarities between the latter actinides and the latter lanthanides	4
			A. CARBOXYLIC ACIDS Preparation, Structure and bonding, Physical and chemical properties including, acidity of carboxylic acids, effects of substituents on acid strength, Hell-Volhard Zeilinsky reaction. Reduction of carboxylic groups, Mechanism of decarboxylation. Di carboxylic acids: Methods of formation and effect of heat and dehydrating agents, Hydroxyacids.	4
			B. CARBOXYLIC ACID DERIVATIVES Structure of acid chlorides, esters, amides and acid anhydrides, Relative stability of acyl derivatives. Physical properties, inter-conversion of acid derivatives by nucleophilic acyl substitution. Mechanism of acid and base catalyzed esterification and hydrolysis.	4
			PHASE EQUILIBRIUM **A.** Phase rule, Phase, component and degree of freedom, derivation of Gibbs phase rule, Clausius-Claperon equation and its applications to Solid-Liquid, Liquid-Vapor and SolidVapor, limitation of phase rule, applications of phase rule to one component system: Water system and sulphur system. Application of phase rule to two component system: Pb-Ag system, desilverization of lead, Zn-Mg system, Ferric chloride-water system, congruent and incongruent melting point and eutectic point. Three component system: Solid solution liquid pairs . **B.** Nernst distribution law, Henry's law, application, solvent extraction	6
December 2022	26		**A. ACIDS BASES :** Arrhenius, Bronsted-Lowry, conjugate acids and bases, relative strengths of acids and bases, the Lux-flood, Solvent system and Lewis concepts of acids and bases. **B. NON-AQUEOUS SOLVENTS** .Physical properties of a solvent, types of solvents and their general characteristics, reaction in non-aqueous solvents with reference to liquid ammonia and liquid sulphur dioxide, HF, H2SO4 , Ionic liquids.	13
			ORGANIC COMPOUNDS OF NITROGEN **A.** Preparation of nitroalkanes and nitroarenes.	13

		Chemical reactions of nitroalkanes. Mechanism of nucleophilic substitution in nitroarenes and their reduction in acidic, neutral and alkaline medium. **B.** Reactivity, structure and nomenclature of amines, physical properties. Stereochemistry of amines. Separation of mixture of primary, secondary and tertiary amines. Structural features affecting basicity of amines. Preparation of alkyl and aryl amines (reduction of nitro compounds and nitriles), reductive amination of aldehydic and ketonic compounds. Gabriel-Phthalimide reaction, HofmannBromamide reaction, Reactions of amines, electrophilic aromatic substitution of aryl amines, Reaction of amines with nitrous acid. Synthetic transformations of aryl diazonium salts, Azo coupling.	
January 2023	25	**PHOTOCHEMISTRY** Characteristics of electromagnetic radiation, Interaction of radiation with matter, difference between thermal and photochemical processes, Lambert-Beer's law and its limitations, physical significance of absorption coefficients. Laws of photochemistry: Grothus-Drapper law, StarkEinstein law, quantum yield, actinometry, examples of low and high quantum yields, Photochemical equilibrium and the differential rate of photochemical reactions, Quenching, Role of photochemical reaction in biochemical process. Jablonski diagram depicting various process occurring in the excited state, qualitative description of fluorescence, phosphorescence, non-radiative processes (internal conversion, intersystem crossing), photosensitized reactions, energy transfer processes {simple examples), photostationary states, Chemiluminescence.	10
		Revision, Test, Home Work	15

February 2023	23	**PRACTICAL EXAMINATION**
		Three Experiments are to be performed.
		1. Inorganic – Qualitative semimicro analysis of mixtures. **(OR)**
		  One experiment from synthesis and analysis by preparing the standard solution.
		2. (a) Identification of the given organic compound & determine its M.Pt./B.Pt.
		  (b) Determination of Rf value and identification of organic compounds by paper chromatography
		3. Any one physical experiment that can be completed in two hours including calculations.
		4. Viva
		. 5. Sessional In case of Ex-Students one marks will be added to each of the experiment.
			10
			
			8
			
			3
			
			2

Department of Chemistry
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

LECTURE/TEACHING PLAN

B.Sc. – III YEAR   YEAR 2022-23

Name of the teacher	:	**Mrs. PRITI KHURSHAIL**	
Department	:	**CHEMISTRY**	
Subject/Paper	:	INORGANIC CHEMISTRY (PAPER:I)	
		ORGANIC CHEMISTRY(PAPER: II)	
		PHYSICAL CHEMISTRY(PAPER: III)	

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022	21	**METAL-LIGAND BONDING IN TRANSITION METAL COMPLEXES** (A) Limitations of valence bond theory, Limitation of Crystal Field Theory, Application of CFSE, tetragonal distortions from octahedral geometry, Jahn–Teller distortion, square planar geometry. Qualitative aspect of Ligand field and MO Theory. (B) Thermodynamic and kinetic aspects of metal complexes. A brief outline of thermodynamic stability of metal complexes and factors affecting the stability, substitution reactions of square planar complexes, Trans- effect, theories of trans effect. Mechanism of substitution reactions of square planar complexes.	7
		HETEROCYCLIC COMPOUNDS Classification and nomenclature, Structure, aromaticity in 5-membered and 6-membered rings containing one heteroatom; Synthesis, reactions and mechanism of substitution reactions of: Furan, Pyrrole (Paal-Knorr synthesis, Knorr pyrrole synthesis, Hantzsch synthesis), Thiophene, Pyridine (Hantzsch synthesis), Indole (Fischer indole synthesis and Madelung synthesis), Quinoline and isoquinoline, (Skraup synthesis, Friedlander's synthesis, Knorr quinoline synthesis, Doebner- Miller synthesis, Bischler-Napieralski reaction, Pictet- Spengler reaction, Pomeranz-Fritsch reaction).	7
		QUANTUM MECHANICS–I Black-body radiation, Planck's radiation law, photoelectric effect, Compton effect. Operator: Hamiltonian operator, angular momentum operator, Laplacian operator, postulate of quantum mechanics, eigen values, eigen function, Schrodinger time independent wave equation, physical significance of ψ & $\psi 2$, application of Schrodinger wave equation to particle in a one dimensional box, hydrogen atom (separation into three equations) radial and angular wave functions.	7
September 2022	25	**MAGNETIC PROPERTIES OF TRANSITION METAL COMPLEXES** Types of magnetic behavior, methods of determining magnetic susceptibility, spin only formula, L-S coupling, correlation of μso (spin only) and μeff. values, orbital contribution to magnetic moments, application of magnetic moment data for 3d metal complexes. Electronic spectra of Transition Metal	7

		Complexes. Types of electronic transitions, selection rules for d-d transitions, spectroscopic ground states, spectro-chemical series. Orgel-energy level diagram for d1 and d2 states, discussion of the electronic spectrum of [Ti(H2O)6] 3+ complex ion.	
		A. ORGANOMETALLIC REAGENT Organomagnesium compounds: Grignard reagents formation, structure and chemical reactions. Organozinc compounds: formation and chemical reactions. Organolithium compounds: formation and chemical reactions. **B. ORGANIC SYNTHESIS VIA ENOLATES** Active methylene group, alkylation of diethylmalonate and ethyl acetoacetate, Synthesis of ethyl acetoacetate: The Claisen condensation. Keto-enol tautomerism of ethyl acetoacetate. Robbinson annulations reaction.	9
		QUANTUM MECHANICS–II Quantum Mechanical approach of Molecular orbital theory, basic ideas-criteria for forming M.O. and A.O., LCAO approximation, formation of H2 + ion, calculation of energy levels from wave functions, bonding and antibonding wave functions, Concept of σ, σ*, π, π* orbitals and their characteristics, Hybrid orbitals-sp,sp2 ,sp3 Calculation of coefficients of A.O.'s used in these hybrid orbitals. Introduction to valence bond model of H2, comparison of M.O. and V.B. models. Huckel theory, application of Huckel theory to ethene, propene, etc.	9
October 2022	**20**	**ORGANOMETALLIC CHEMISTRY** Definition and classification of organometallic compounds on the basis of bond type. Concept of hapticity of organic ligands. Metal carbonyls: 18-electron rule, electron count of mononuclear, polynuclear and substituted metal carbonyls of 3d series. General methods of preparation (direct combination, reductive carbonylation, thermal and photochemical decomposition) of mono and binuclear carbonyls of 3d series. Structures of mononuclear and binuclear carbonyls of Cr, Mn, Fe, Co and Ni using VBT. πacceptor behavior of CO (MO diagram of CO to be discussed), Zeise's salt: Preparation and structure. Catalysis by Organometallic Compounds – Study of the following industrial processes and their mechanism :**1.** Alkene hydrogenation (Wilkinsons Catalyst) **2.** Polymeration of ethane using Ziegler – Natta Catalyst	5
		BIOMOLECULES **A. CARBOHYDRATES** Occurrence, classification and their biological importance. Monosaccharides: relative and absolute configuration of glucose and fructose, epimers and anomers, mutarotation, determination of ring size of glucose and fructose, Haworth projections and conformational structures; Interconversions of aldoses and ketoses; Killiani Fischer synthesis and Ruff degradation; Disaccharides – Structural comparison of maltose, lactose and sucrose. Polysaccharides – Elementary treatment of starch and cellulose. **B. AMINO ACIDS, PROTEINS AND NUCLEIC ACIDS** Classification and Nomenclature of amino acids, Configuration and acid base properties of amino acids, Isoelectric Point, Peptide bonds, Protein structure, denaturation/ renaturation, Constituents of nucleic acid, DNA, RNA nucleoside, nucleotides, double helical structure of DNA.	5
		SPECTROSCOPY Introduction: Characterization of Electromagnetic radiation, regions of the spectrum, representation of spectra, width and intensity of spectral transition,	5

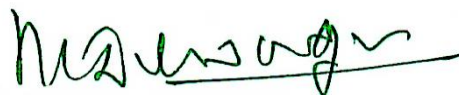|			
		Rotational Spectrum of Diatomic molecules. Energy levels of a rigid rotor, selection rules, determination of bond length, qualitative description of non-rigid rotator, isotopic effect. Vibrational Spectroscopy: Fundamental vibration and their symmetry vibrating diatomic molecules, Energy levels of simple harmonic oscillator, selection rules, pure vibrational spectrum, determination of force constant, anharmonic oscillator Raman spectrum: Concept of polarizability, quantum theory of Raman spectra, stokes and antistokes lines, pure rotational and pure vibrational Raman spectra. Applications of Raman Spectra. Electronic Spectroscopy: Basic principles, Electronic Spectra of diatomic molecule, Franck-Condon principle, types of electronic transition, application of electronic spectra.	
		BIOINORGANIC CHEMISTRY Essential and trace elements in biological processes, Excess and deficiency of some trace metals, Toxicity of some metal ions (Hg, Pb, Cd and As), metalloporphyrins with special reference to hemoglobin and myoglobin. Biological role of alkali and alkaline earth metals with special reference to Ca^{2+} and Mg^{2+} , nitrogen fixation.	5
November 2022	20	**SYNTHETIC POLYMERS** **A.** Addition or chain growth polymerization, Free radical vinyl polymerization, Ziegler-Natta polymerization, Condensation or Step growth polymerization, polyesters, polyamides, phenols-formaldehyde resins, urea-formaldehyde resins, epoxy resins and polyurethanes, natural and synthetic rubbers. **B**. SYNTHETIC DYES Colour and constitution (Electronic Concept). Classification of Dyes. Chemistry of dyes. Chemistry and synthesis of Methyl Orange, Congo Red, Malachite Green, Crystal Violet, phenolphthalein, fluorescein, Alizarine and Indigo.	7
		ELECTROCHEMISTRY-I **A.** Electrolytic conductance: Specific and equivalent conductance, measurement of equivalent conductance, effect of dilution on conductance, Kohlrausch law, application of Kohlrausch law in determination of dissociation constant of weak electrolyte, solubility of sparingly soluble electrolyte, absolute velocity of ions, ionic product of water, conductometric titrations. **B.** Theories of strong electrolyte: limitations of Ostwald's dilution law, weak and strong electrolytes, Elementary ideas of Debye – Huckel - Onsager's equation for strong electrolytes , relaxation and electrophoretic effects. **C.** Migration of ions: Transport number, Determination by Hittorf method and moving boundary method, ionic strength.	7
		HARD AND SOFT ACIDS AND BASES (HSAB) Classification of acids and bases as hard and soft. Pearson's HSAB concept, acid-base strength and hardness and softness. Symbiosis, Applications of HSAB principle. INORGANIC POLYMERS Types of inorganic polymers, comparison with organic polymers, synthesis, structural aspects and applications of silicones. Silicates, phosphazenes and polyphosphate.	6
December 2022	22	**A. INFRA-RED SPECTROSCOPY** Basic principle, IR absorption Band their position and intensity, IR spectra of organic compounds. B. **UV-VISIBLE SPECTROSCOPY**	4

		Beer Lambert's law, effect of Conjugation, Types of electronic transitions λmax, Chromophores and Auxochromes, Bathochromic and Hypsochromic shifts, Intensity of absorption Visible spectrum and colour.	4
		C. NMR SPECTROSCOPY Basic principles of Proton Magnetic Resonance, Tetramethyl silane (TMS) as internal standard, chemical shift and factors influencing it; Spin – Spin coupling and coupling constant (J); Anisotropic effects in alkene, alkyne, aldehydes and aromatics, Interpretation of NMR spectra of simple organic compounds. 13CMR spectroscopy: Principle and applications.	4
		ELECTROCHEMISTRY-II A. Electrochemical cell and Galvanic cells – reversible and irreversible cells, conventional representation of electrochemical cells, EMF of the cell and effect of temperature on EMF of the cell, Nernst equation Calculation of ΔG, ΔH and ΔS for cell reactions. B. Single electrode potential : standard hydrogen electrode, calomel electrode, quinhydrone electrode, redox electrodes, electrochemical series C. Concentration cell with and without transport, liquid - junction potential, application of concentration cells in determining of valency of ions , solubility product and activity coefficient D. Corrosion-types , theories and prevention	
		Revision, Test, Home Work	**10**
January 2023	**24**	INORGANIC CHEMISTRY Gravimetric analysis: Estimation of nickel (II) using Dimethylglyoxime (DMG).• Estimation of copper as CuSCN• Estimation of iron as Fe2O3 by precipitating iron as Fe(OH)3.• Estimation of Al (III) by precipitating with oxine and weighing as Al(oxine)3 (aluminium• oxinate). Estimation of Barium as BaSO4• Inorganic Preparations: Tetraamminecopper (II) sulphate, [Cu(NH3)4]SO4.H2O• Cis and trans K[Cr(C2O4)2.(H2O)2] Potassium dioxalatodiaquachromate(III)• Tetraamminecarbonatocobalt (III) ion• Potassium tris(oxalate)ferrate(III)/ Sodium tris(oxalate)ferrate(III)• Cu(I) thiourea complex, Bis (2,4-pentanedionate) zinc hydrate; Double salts (Chrome• alum/ Mohr's salt)	**10**
		1. Preparation of organic Compounds Acetylation of one of the following compounds: amines (aniline, o-, m-, p-toluidines and• o-,m-, p-anisidine) and phenols (β-naphthol, vanillin, salicylic acid) Benzolyation of one of the following amines (aniline, o-, m-, p- toluidines and o-, m-,• panisidine) and one of the following phenols (β-naphthol, resorcinol, p cresol) by Schotten-Baumann reaction. Bromination of any one of the following: a. Acetanilide by conventional methods•b.Acetanilide using green approach (Bromate-bromide method) Nitration of any one of the following: a. Acetanilide/nitrobenzene by conventional• method b. Salicylic acid by green approach (using ceric ammonium nitrate). Reduction of p-nitrobenzaldehyde by sodium borohydride.• Hydrolysis of amides and esters.• Semicarbazone of any one of the following compounds: acetone, ethyl methyl ketone,• cyclohexanone, benzaldehyde. Benzylisothiouronium salt of one each of water soluble and water insoluble acids• (benzoic acid, oxalic acid, phenyl acetic acid and phthalic acid). Aldol condensation using either conventional or green method.•	**14**

February 2023	26	Benzil-Benzilic acid rearrangement.• Preparation of sodium polyacrylate.• Preparation of urea formaldehyde.• Preparation of methyl orange.• The above derivatives should be prepared using 0.5-1g of the organic compound. The solid samples must be collected and may be used for recrystallization, melting point and TLC. 2. Qualitative Analysis Analysis of an organic mixture containing two solid components using water, NaHCO3, NaOH for separation and preparation of suitable derivatives. 3. Extraction of caffeine from tea leaves. 4. Analysis of Carbohydrate: aldoses and ketoses, reducing and non-reducing sugars. 5. Identification of simple organic compounds by IR spectroscopy and NMR spectroscopy. (Spectra to be provided). 6. Estimation of glycine by Sorenson's formalin method. 7. Study of the titration curve of glycine. 8. Estimation of proteins by Lowry's method. 9. Study of the action of salivary amylase on starch at optimum conditions. 10. Effect of temperature on the action of salivary amylase.	13 13
February 2023	26	**PHYSICAL CHEMISTRY** Conductometry Determination of cell constant• Determination of equivalent conductance, degree of dissociation and dissociation• constant of a weak acid. Perform the following conductometric titrations:• i. Strong acid vs. strong base ii. Weak acid vs. strong base iii. Mixture of strong acid and weak acid vs. strong base iv. Strong acid vs. weak base To determine the strength of the given acid conductometrically using standard alkali• solution. To determine the solubility and solubility product of a sparingly soluble electrolyte•conductometrically To study the saponification of ethyl acetate conductometrically.• Potentiometry/pH metry Perform the following potentio/pH metric titrations: i. Strong acid vs. strong base ii. Weak acid vs. strong base iii. Dibasic acid vs. strong base iv. Potassium dichromate vs. Mohr's salt v. Determination of pKa of monobasic acid	13
		UV/ Visible spectroscopy Verify Lambert-Beer's law and determine the concentration of CuSO4/KMnO4/K2Cr2O7• in a solution of unknown concentration Determine the concentrations of KMnO4 and K2Cr2O7 in a mixture.• Study the kinetics of iodination of propanone in acidic medium.• Determine the amount of iron present in a sample using 1,10-phenathroline.• Determine the dissociation constant of an indicator (phenolphthalein).• Study the kinetics of interaction of crystal violet/ phenolphthalein with sodium• hydroxide. Study of pH-dependence of the UV-Vis spectrum (200-500 nm) of potassium dichromate.• Spectral characteristics study (UV) of given compounds (acetone, acelaldehyde, acetic• acid, etc.) in water. max valuesλ Absorption spectra of KMnO4 and K2Cr2O7 (in 0.1 M H2SO4) and determine •	13

Department of Chemistry
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com

Phone – 07744-296940college code-1904

LECTURE/TEACHING PLAN

B.Sc. – I YEAR   YEAR 2022-23

Name of the teacher	:	**SANDHYA VERMA**
Department	:	**PHYSICS**
Subject/Paper	:	MECHANICS (PAPER:I)
		ELECTRICITY AND MAGANETISM (PAPER: II)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		**Vectors:** Vector algebra, Derivatives of a vector with respect to a parameter, Scalar and vector products of two, three and four vectors, Gradient, divergence and curl of vectors fields, Polar and Axial vectors**.** **Ordinary Differential Equations**: Ist order homogeneous differential equations. exact and non-exact differential equations, equations, and 2nd order order homogeneous and nonhomogeneous differential equations with constant coefficients (Operator Method Only).	
		Vector Analysis: Vector Integration, Line, surface and volume integrals of Vector fields, Gauss-divergence theorem and Stoke's theorem of vectors and its application in electrostatics and magnetostatics.	
September 2022		**Laws of Motion:** Review of Newton's Laws of motion. Dynamics of a system of particles. Concept of Centre of Mass, determination of center of mass for discrete and continuous systems having cylindrical and spherical symmetry. **Work and Energy:** Motion rocket, Work-Energy forces, Force as a gradient of Potential Energy, Conservation of momentum and energy, Elastic and in-elastic Collisions.	
		Electrostatics: Flectrostatic 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, 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.	
October 2022		**Rotational Dynamics**: Angular velocity. Angular momenturn, Torque, Conservation of angular momentum, Moment of Inertia, Theorem of parallel and perpendicular axes (statements only), Calculation of Moment of Inertia of discrete and	

		continuous objects (rod, disc, cylinder, solid sphere). **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 modules, Elementary idea of Surface tension and Viscosity, flow of fluids, coefficient of viscosity. Stoke's law, expression for terminal velocity, wetting.	
November 2022		**Dielectric & Electric Currents:** Dielectric medium, Polarisation, Displacement vector, Gauss's theorem in dielectrics, Parallel plate capacitor completely filled with dielectric. Steady current, current density J, nonsteady current an ontinuity equation, Kirchoff's law (statement only), Ideal constant voltage and constant current sources, Thevenin theorem, Norton theorem, Superposition theorem, Reciprocity theorem and maximum power transfer theorem, Rise and decay of current in LR, CR, LCR circuits.	
December 2022		. **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 (statements only), Satellite in circular orbit and applications, Geosynchronous orbits. **Oscillations:** Simple harmonic motion, Differential equation of SHM and its solutions, Kinetic and Potential Energy. Total Energy and their averages, Compound pendulum, Differential equations of damped oscillations and forced oscillations (Conceptual only).	
		Revision, Test, Home Work	
January 2023		**Special Theory of Relativity:** Frame of reference, Galilean Transformations, Inertial and Non-inertial frames, Outcomes of Michelson Morley's Experiment, Postulates of Special Theory of Relativity, Length contraction, Time dilation, Relativistic transformation of velocity, Relativistic variation of mass, Mass-energy equivalence, Transformation of Energy and Momentum	
		Magnetism: Magnetostatics: Biot-Savart's law and 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.	

February 2023		PRACTICAL EXAMINATION	
		1. Study of laws of parallel and perpendicular axes for moment of inertia. 2. Moment of inertia of Fly wheel 3. Moment of inertia of irregular bodies by inertia table. 4. Study of conservation of momentum in two dimensional oscillations. 5. Study of a compound pendulum. 6. Study of damping of a bar pendulum under various mechanics. 7. Study of oscillations under a bifilar suspension. 8. Study of modulus of rigidity by Maxwell's needle. Determination of Y, k, η by Searl's apparatus. 10. To study the oscillation of a rubber band and hence to draw a potential energy curve from it. 11. Study of oscillation of a mass under different combinations of springs. 12. Study of torsion of wire (static and dynamic method). 13. Poisson's ratio of rubber tube. 14. Study of bending of a cantilever or a beam. 15. Study of flow of liquids through capillaries. 16. Determination of surface tension of a liquid. 17. Study of viscosity of a fluid by different methods.	
		Magnetism: Magnetostatics: Biot-Savart's law and 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.	

Department of Physics
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

LECTURE/TEACHING PLAN

B.Sc. – II YEAR   YEAR 2022-23

Name of the teacher   :   **SANDHYA VERMA**

Department   :   **PHYSICS**

Subject/Paper   :   THERMODYNAMICS, KINETIC THEORY AND
STATISTICAL PHYSICS (PAPER I)

ORGANIC CHEMISTRY(PAPER II)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		The laws of thermodynamics: The Zeroth law, first law of thermodynamics, internal energy as a state function, reversible and irreversible change, Carnot's cycle, carnot theorem, second law of thermodynamics. Claussius theorem inequality. Entropy, Change of in simple cases (1) Isothermal expansion of an ideal gas (ii) Reversible isochoric process (iii) Free adiabatic expansion of an ideal gas. Concept of entropy. Entropy of the universe. Entropy change in reversible and irreversible processes, Entropy of Ideal gas, Entropy as a thermodynamic variable, S-T diagram, Principle of increase of entropy. The thermodynamic scale of temperature, Third law of thermodynamics, Concept of negative temperature.	
		Waves in media: Speed of transverse waves on uniform string, speed of longitudinal waves in a fluid, energy density and energy transmission in waves. Waves over liquid surface: gravity waves and ripples. Group velocity and phase velocity and relationship between them. Production and detection of ultrasonic and infrasonic waves and applications. Reflection, refraction and diffraction of sound: Acoustic impedance of a medium, percentage reflection & refraction at a boundary, impedance matching for transducers, diffraction of sound, principle of a sonar system, sound ranging.	
September 2022		Thermodynamic functions, Internal energy. Enthalpy, Helmholtz function and Gibb's free energy. Maxwell's thermodynamical equations and their applications, TdS equations, Energy and heat equations Application of Maxwell's equation in Joule- Thomson cooling, adiabatic cooling of a system, Van der Waals Clausius sius-Clapeyron gas, heat equation. Blackbody spectrum, Stefan-Boltzmann law, Wien's displacement law, Rayleigh-Jean's Jean's law, law, Planck's quantum theory radiation.	
		Fermat's Principle of extremum path, the aplanatic points of a sphere and other applications. Cardinal points of an optical system, thick lens and lens combinations. Lagrange equation of magnification,	

		telescopic combinations, telephoto lenses. Monochromatic aberrations and their aspherical mirrors and Schmidt corrector plates, aplanatic points, oil immersion objectives, meniscus lens. Optical instruments: Entrance and exit pupils, need for a multiple lens eyepiece, common types of eyepieces. (Ramsdon and Hygen's eyepieces).	
October 2022		Maxwellian distribution of speeds in an ideal gas: Distribution of speeds and velocities, experimental verification, distinction between mean, rms and most probable speed values. Doppler broadening of spectral lines. Transport phenomena in gases: Molecular collisions mean free path and collision cross sections. Estimates of molecular diameter and mean free path. Transport of mass, momentum and energy and interrelationship, on temperature and pressure. Behaviour of Real Gases: Deviations from the ideal Gas Equation. The Virial Equation. Andrew's Experiments on CO_2 Gas. Critical Constants	
November 2022		The statistical basis of thermodynamics: Probability and thermodynamic probability, principle of equal a priori probabilities, statistical postulates. Concept of Gibb's ensemble, accessible and inaccessible states. Concept of pliase space, 7 phase space and u phase space. Equilibrium before two systems in thermal contact, probability Boltzmann entropy relation. law of equipartition of energy. and entropy, Boltzmann canonical distribution law and its applications,	
		Indistinguishability of particles and its consequences, Bose-Einstein & Fenni-Dirac conditions, Concept of partition function, Derivation of Maxwell-Boltzmann, Bose Einstein and Fermi-Dirac Statistics, Lingits of B-E and F-D statistics to M-B statistics. Application of B-E statistics to black body radiation, Application of F-D statistics to free electrons in a metal.	
December 2022			
		Diffraction, Types of Diffraction, Fresnel's diffraction, half-period zones, phasor diagram and integral calculus methods, the intensity distribution, Zone plates, diffraction due to straight edge, Fraunhofer diffraction due to a single slit and double slit, Diffraction at N-Parallel slit, Plane Diffraction grating, Rayleigh criterion, resolving power of grating, Prism, telescope. Polarized light and its mathematical representation, Production of polarized light by reflection, refraction and scattering. Polarization by double refraction and Huygen's theory, Nicol prism, Retardation plates, Production and analysis of circularly and elliptically polarized light. Optical activity and Fresnel's theory. Biquartz polarimeter.	
January 2023		Laser system: Basic properties of Lasers, coherence length and coherence time, spatial coherence of a source, Einstein's A and B coefficients, Spontaneous and induced emissions, conditions for laser action, population inversion, Types of Laser: Ruby and, He-Ne laser, end. Applications of laser: Application in communication, Holography and Basics of non linear optics and Generation of Harmonic.	
		Revision, Test, Home Work	
February 2023		**PRACTICAL EXAMINATION** 1. Study of Brownian motion.	

| | | 2. Study of adiabatic expansion of a gas.
3. Study of conversion of mechanical energy into heat.
4. Heating efficiency of electrical kettle with varying voltage.
5. Study of temperature dependence of total radiation.
6. Study of temperature dependence of spectral density of radiation.
7. Resistance thermometry.
9. Conduction of heat through poor conductors of different geometrie
8. Thermo emf thermometry.
10. Experimental study of probability distribution for a two-optie coloured dice.
11. Study of statistical distribution on nuclear disintegration data (G black box).
12. Speed of waves on a stretched strings.
13. Studies on torsional waves in a lumped system.
14. Study of interference with two coherent source of sound. 15. Chlandi's figures with varying excitation and loading points.
16. Measurements of sound intensities with different situations.
17. Characteristics of a microphone-loudspeakers system
18. Designing an optical viewing system.
19. Study of monochromatic defects of images.
20. Determining the principle point of a combination of lenses.
21. Study of interference of light (biprism or wedge film).
22. Study of diffraction at a straight edge or a single slit.
23. Study of F-P etalon fringes.
24. Study of diffraction grating and its resolving power.
25. Resolving power of telescope system.
26. Polarization of light by reflection; also cos-squared law.
27. Study of optical rotation for any system.
28. Study of laser as a monochromatic coherent source.
29. Study of a divergence of laser beam | |
| | | Interference of light. The principle of superpositions, two slit interference, coherence requirement for the sources, optical path retardations, Conditions for sustained interference, Theory of interference, Thin films. Newton's rings and Michelson interferometer and their applications its application for precision determinations of wavelength, wavelength difference and the width of spectral lines. Multiple beam interference in parallel film and Fabry-Perot interferometer. Rayleigh refractometer, Twyman-Green interferometer and its uses. | |

Sandhya

(C.G.)**Department of Physics**
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

(C.G.)Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com
Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.Sc. – III YEAR   YEAR 2022-23

Name of the teacher	:	**SANDHYA VERMA**
Department	:	**PHYSICS**
Subject/Paper	:	RELATIVITY, QUANTUM MECHANICS, ATOMIC MOLECULAR AND NUCLEAR (PAPERI)
		SOLID STATE PHYSICS, SOLID STATE DEVICES AND ELECTRONICS(PAPER II)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		Reference systems, inertial frames, Galilean invariance propagation of light, Michelson-Morley experiment, search for ether. Postulates for the special theory of relativity, Lorentz transformations, length contraction, time dilation, velocity addition, variation of mass with velocity, mass-energy equivalence, particle with zero rest mass.	
		Amorphous and crystalline solids, Elements of symmetry, seven crystal system, Cubic lattices, Crystal planes, Miller indices, Laue's equation for X-ray diffraction, Bragg's Law, Bonding in solids, classification. Cohesive energy of solid, Madelung constant, evaluation of Parameters, Specific heat of solids, classical theory (Dulong-Petit's law), Einstein and Debye theories, Vibrational modes of one dimensional monoatomic lattice, Dispersion relation, Brillouin Zone.	
September 2022		Origin of the quantum theory : Failure of classical physics to explain the phenomena such as black-body spectrum, photoelectric effect, Compton effect, Wave-particle duality, uncertainty principle, de Broglie's hypothesis for matter waves, the concept of Phase and group velocities, experimental demonstration of mater waves. Davisson and Germer's experiment. Consequence of de Broglie's concepts, Bohr's complementary Principle, Bohr's correspondence principle, Bohr's atomic model, energies of a particle in a box, wave packets. Consequence of the uncertainty relation, gamma ray microscope, diffraction at a slit	
		Free electron model of a metal, Solution of one dimensional Schrödinger equation in a constant potential, Density of states, Fermi Energy, Energy bands in a solid (Kronig- Penny model without mathematical details), Difference between Metals,	

		Insulator and Semiconductors, Hall effect, Dia, Para and Ferromagnetism, Langevin's theory of dia and para-magnetism, Curie- Weiss's Law, Qualitative description of Ferromagnetism (Magnetic domains), B-H curve and Hysteresis loss.	
October 2022		Quantum Mechanics: Schrodinger's equation, Statistical interpretation of wave function, Orthogonality and normalization of wave function, Probability current density, Postulatory basis of quantum mechanics, operators, expectation values, Ehrenfest's theorem, transition probabilities, applications to particle in a one and three dimensional boxes, harmonic oscillator in one dimension, reflection at a step potential, transmission across a potential barrier.	
November 2022		Spectra of hydrogen, deuteron and alkali atoms spectral terms, doublet fine structure, screening constants for alkali spectra for s, p, d and f states, selection rules. Discrete set of electronic energies of moleculers, quantisation of vibrational and rotational energies, determination of inter-nuclear distance, pure rotational and rotation vibration spectra. Dissociation limit for the ground and other electronic states, transition rules for pure vibration and electronic vibration spectra. Raman effect, Stokes and anti-Stokes lines, complimentary character of Raman and infrared spectra, experimental arrangements for Raman spectroscopy	
		Half and full wave rectifier, rectifier efficiency ripple factor, Bridge rectifier, Filters, Inductor filter, L and π section filters, Zener diode, regulated power supply using zener diode, Applications of transistors, Bipolar Transistor as amplifier, h-parameter, h-parameter equivalent circuit, Transistor as power amplifier, Transistor as oscillator, principle of an oscillator and Bark Hausen's condition, requirements of an oscillator, Wein-Bridge oscillator and Hartley oscillator.	
December 2022		Structure of nuclei:- Basic Properties of Nuclei: (1) Mass, (2) Radii, (3) Charge, (4) Angular Momentum, (5) Spin, (6) Magnetic Moment (μ), (7) Stability and (8) Binding Energy, Nuclear Models:- Liquid Drop Model, Mass formula, Shell Model, Types of Nuclear reactions, laws of conservation, Q-value of reactions, Interaction of Energetic particles with matter, Ionization chamber, GM Counter, Cloud Chambers, Fundamental Interactions, Classification of Elementary Particles, Particles and Antiparticles, Baryons, Hyperons, Leptons, and Mesons, Elementary Particle Quantum Numbers: Baryon Number, Lepton Number, Strangeness, Electric Charge, Hypercharge and Isospin, introductory idea of discovery of Higg's Boson.	

		Revision, Test, Home Work	
January 2023		Digital Circuits: Difference between Analog and Digital Circuits, Binary Numbers, Decimal to Binary and Binary to Decimal Conversion, AND, OR and NOT Gates (Realization using Diodes and Transistor), NAND and NOR Gates as Universal Gates, XOR and XNOR Gate, De Morgan's Theorems, Boolean Laws, Simplification of Logic Circuit using Boolean Algebra, Digital to Analog Converter, Analog to Digital Converter.	
February 2023		**PRACTICAL EXAMINATION** 1. Determination of Planck's constant. 2. Determination of e/m by using Thomson tube. 3. Determination of e by Millikan's methods. 4. Study of spectra of hydrogen and deuterium (Rydberg constant and ratio of masses of electron proton). 5. Absorption spectrum of iodine vapour. 6. Study of alkali or alkaline earth spectra using a concave grating. 7. Study of Zeeman effect for determination of a Lande g-factor. 8. Analysis of a given band spectrum. 9. Study of Raman spectrum using laser as an excitation source. 10. Study of absorption of alpha and beta rays. 11. Study of statistics in radioactive measurement. 12. Coniometric study of crystal faces. 13. Determination of dielectric constant. 14. Hysteresis curve of transformer core. 15. Hall-probe method for measurement of magnetic field. 16. Specific resistance and energy gap of semiconductor. 17. Characteristics of transistor. 18. Characteristics of tunnel diode. 19. Study of voltage regulation system. 20. Study of regulated power supply. 21. Study of lissajous figures using CRO. 22. Study of VTVM. 23. Study of RC and TC coupled amplifiers. 24. Study of AF and RF oscillators. 25. Find roots of $f(x) = 0$ by using Newton-Raphson Method. 26. Find root of $f(x) = 0$ by using secant method. 27. Integration by Simpson rule. 28. To find the value of V at 29. String manipulations.	

		30. Towers of Hanoi (Non-recursive). 31. Finding first four perfect numbers. 32. Quadratic interpolation using Newton's forward-difference formula of degree two.	
February 2023		Intrinsic and extrinsic semiconductors, Concept of Fermi level, Generation and recombination of electron hole pairs in semiconductors, Mobility of electrons and holes, drift and diffusion currents, p-n junction diode, depletion width and potential barrier, junction capacitance, I-V characteristics, Tunnel diode, Zener diode, Light emitting diode, solar cell, Bipolar transistors, pnp and npn transistors, characteristics of transistors, different configurations, current amplification factor, FET and MOSFET Characteristics.	

Department of Physics
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com

Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.Sc. – I YEAR   YEAR 2022-23

Name of the teacher   **: VARSHA SAHU**

Department   **: MATHEMATICS**

Subject/Paper   **:** ALGEBRA AND TRIGONOMETRY **(PAPER I)**

CALCULUS **(PAPER II)**

VECTOR ANALYSIS AND GEOMETRY **(PAPER III**)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		Elementary operations on matrices, Inverse of a matrix. Linear independence of row and column matrices, Row rank, column rank and rank of a matrix. Equivalence of column and row ranks. Eigenvalues, eigenvectors and the characteristic equations of a matrix. Cayley Hami lton theorem and i ts use in finding inverse of a matr ix.	
		$\varepsilon - \delta$ definit ion of the l imit of a function. Basic properties of limi ts. Continuous funct ions and classification of discont inuties. Differentiabil ity. Successive different iat ion. Leibnitz theorem. Maclaurin and Taylor series expansions.	
		Scalar and vector product of three vectors. Product of four vectors. Reciprocal Vectors. Vector differentiation. Gradient, divergence and curl.	
September 2022		Application of matr ices to a system of linear (both homogeneous and nonhomogeneous) equat ions. Theorems on consistency of a system of linear equations. Relation between the roots and coefficients of general polynomial equations in one variable. Transformation of equations. Descarte's rule of signs. Solut ions of cubic equations (Cardons method), Biquadratic equat ion.	
		Asymptotes. Curvature. Tests for concavity and convexity. Points of inflexion. Multiple points. Tracing of curves in cartesian and polar coordinates.	
		.	
October 2022		Mappings, Equivalence relat ions and par ti tions. Congruence modulo n. Definit ion of a group wi th examples and simple proper ties. Subgroups, generation of groups, cyclic groups, coset decomposi tion, Lagrange 's theorem and its consequences. Ferma t 's and Euler 's theorems. Normal subgroups. Quo t ient group, Permutation groups. Even and odd permutations. The al ternat ing groups An. Cayley's theorem.	
		Vector integrat ion. Theorems of Gauss, Green, Stokes and problems based on these	
November 2022			

		Integrat ion of transcendental funct ions. Reduction formulae. Definite integrals. Quadrature. Rect ification. Volumes and sur faces of sol ids of revolution.	
		General equat ion of second degree. Tracing of coni cs. System of conics. Confocal conics. Polar equation of a conic.	
December 2022		Homomorphism and Isomorphism of groups. The fundamental theorems of homomorphism. Introduction, properties and examples of rings, Subrings, Integral domain and fields Characterist ic of a r ing and Field.	
		Degree and order of a differential equat ion. Equat ions reducible to the l inear form. Exact differential equat ions. First order higher degree equations solvable for x, y, p. Clairaut 's form and singular solutions. Geometrical meaning of a differential equation. Orthogonal trajectories. Linear differential equat ions wi th constant coefficients. Homogeneous linear ordinary different ial equat ions.	
		Revision, Test, Home Work	
January 2023		Sphere. Cone. Cyl inder	
		De-Moivre's theorem and i ts appl ications. Direct and inverse circular and hyperbol ic functions. Logar ithm of a complex quant ity. Expansion of trigonometr ical functions. Gregory's series. Summation of series.	
		Linear differential equations of second order. Transformat ion of the equat ion by changing the dependent var iable/the independent var iable. Method of var iation of parameters. Ordinary simul taneous differential equations.	
February 2023		Central Conicoids. Paraboloids. Plane sections of conicoids. Genera ting lines. Confocal Conicoids. Reduction of second degree equat ions.	

(C.G.)Department of Mathematics
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com

Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.Sc. – II YEAR   YEAR 2022-23

Name of the teacher   :   **VARSHA SAHU**

Department   :   **MATHEMATICS**

Subject/Paper   :   **ADVANCED CALCULUS (PAPER:I)**

                                                      DIFFERENTIAL EQUATIONS (PAPER: II)

                                                      MECHANICS (PAPER: III)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		UNIT-I Definition of a sequence. Theorems on limits of sequences. Bounded and monotonic sequences. Cauchy's convergence criterion. Series of non-negative terms. Comparison tests, Cauchy's integral test, Ratio tests, Raabe's, Logarithmic, De Morgan and Bertrand's tests. Alternating series, Leibnitz's theorem. Absolute and conditional convergence.	
		UNIT-I Series solutions of differential equations- Power series method, Bessel and Legendre functions and their properties-convergence, recurrence and generating relations, Orthogonality of functions, Sturm-Liouville problem, Orthogonality of eigen-functions, Reality of eigen values, Orthogonality of Bessel functions and Legendre polynomials.	
		STATICS UNIT-I Analytical conditions of Equilibrium, Stable and unstable equilibrium. Virtual work, Catenary.	
September 2022			
		UNIT-II Continuity, Sequential continuity, Properties of continuous functions, Uniform continuity, Chain rule of differentiability, Mean value theorems and their geometrical interpretations. Darboux's intermediate value theorem for derivatives, Taylor's theorem with various forms of remainders.	
October 2022		UNIT-II Laplace Transformation- Linearity of the Laplace transformation, Existence theorem for Laplace transforms, Laplace transforms of derivatives and integrals, Shifting theorems. Differentiation and integration of transforms. Convolution theorem. Solution of integral equations and systems of differential equations using the Laplace transformation.	
		UNIT-II Forces in three dimensions, Poinsot's central axis, Null lines and planes.	
		UNIT-III Limit and continuity of functions of two variables. Partial differentiation. Change of variables. Euler's theorem on homogeneous functions. Taylor's	

		theorem for functions of two variables. Jacobians.	
November 2022		UNIT-III Simple harmonic motion. Elastic strings. Velocities and accelerations along radial and transverse directions, Projectile, Central orbits.	
		UNIT-IV Envelopes, evolutes. Maxima, minima and saddle points of functions of two variables. Lagrange's multiplier method	
		UNIT-IV Partial differential equations of second and higher orders, Classification of linear partial differential equations of second order, Homogeneous and non-homogeneous equations with constant coefficients, Partial differential equations reducible to equations with constant coefficients, Monge's methods.	
December 2022		UNIT-IV Kepler's laws of motion, velocities and acceleration in tangential and normal directions, motion on smooth and rough plane curves.	
		UNIT-V Beta and Gamma functions, Double and triple integrals, Dirichlet's integrals, Change of order of integration in double integrals.	
		Revision, Test, Home Work	
January 2023		UNIT-V Motion in a resisting medium, motion of particles of varying mass, motion of a particle in three dimensions, acceleration in terms of different co-ordinate systems.	
February 2023		UNIT-V Calculus of Variations- Variational problems with fixed boundaries- Euler's equation for functionals containing first order derivative and one independent variable, Extemals, Functionals dependent on higher order derivatives, Functionals dependent on more than one independent variable, Variational problems in parametric form, invariance of Euler's equation under coordinates transformation. Variational Problems with Moving Boundaries- Functionals dependent on one and two functions, One sided variations. Sufficient conditions for an Extremum- Jacobi and Legendre conditions, Second Variation. Variational principle of least action.	

Department of Mathematics
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

(C.G.)**Principal**
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.Sc. – III YEAR   YEAR 2022-23

Name of the teacher   **: VARSHA SAHU**

Department   **: MATHEMATICS**

Subject/Paper   **: ANALYSIS (PAPER:I)**

ABSTRACT ALGEBRA (PAPER: II)

DISCRETE MATHEMATICS (PAPER:III)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		METRIC SPACES UNIT-I Definition and examples of metric spaces. Neighbourhoods, Limit points, Interior points, Open and Closed sets, Closure and interior. Boundary points, Sub-space of a metric space. Cauchy sequences, Completeness, Cantor's intersection theorem. Contraction principle, construction of real numbers as the completion of the incomplete metric space of rationals. Real numbers as a complete ordered field.	
		UNIT-I Group- Automorphisms, inner automorphism. Automorphism of groups and their computations, Conjugacy relation, Normaliser, Counting principle and the class equation of a finite group. Center for Group of prime-order, Abelianizing of a group and its universal property. Sylow's theorems, Sylow subgroup, Structure theorem for finite Abelian groups	
		UNIT-I Sets and Propositions - Cardinality. Mathematical Induction, Principle of inclusion and exclusion. Computability and Formal Languages - Ordered Sets. Languages. Phrase Structure Grammars. Types of Grammars and Languages. Permutations. Combinations and Discrete Probability	
September 2022		UNIT-II Dense subsets. Baire Category theorem. Separable, second countable and first countable spaces. Continuous functions. Extension theorem. Uniform continuity, isometry and homeomorphism. Equivalent metrics. Compactness, sequential compactness. Totally bounded spaces. Finite intersection property. Continuous functions and Compact sets, Connectedness, Components, Continuous functions and Connected sets.	
		. UNIT-II Ring theory-Ring homomorphism. Ideals and quotient rings. Field of quotients of an integral domain, Euclidean rings, polynomial rings, Polynomials over the rational field. The Eisenstien criterion, polynomial rings over commutative rings, Unique factorization domain. R unique factorisation domain implies so is R[x1, x2 ..... xn]. Modules, Submodules, Quotient modules, Homomorphism and Isomorphism	

		theorems.	
		. UNIT-II Relations and Functions - Binary Relations, Equivalence Relations and Partitions. Partial Order Relations and Lattices. Chains and Antichains. Pigeon Hole Principle. Graphs and Planar Graphs - Basic Terminology. Multigraphs. Weighted Graphs. Paths and Circuits. Shortest Paths. Eulerian Paths and Circuits. Travelling Salesman Problem. Planner Graphs. Trees.	
October 2022		COMPLEX ANALYSIS UNIT-III Complex numbers as ordered pairs. Geometrical representation of complex numbers. Stereographic projection. Continuity and differentiability of complex functions. Analytic functions. Cauchy- Riemann equations. Harmonic functions. Elementary functions. Mapping by elementary functions. Mobius transformations. Fixed points, Cross ratio. Inverse points and critical mappings. Conformal mappings	
		UNIT-III Definition and examples of vector spaces. Subspaces. Sum and direct sum of subspaces. Linear span, Linear dependence, independence and their basic properties. Basis. Finite dimensional vector spaces. Existence theorem for bases. Invariance of the number of elements of a basis set. Dimension. Existence of complementary subspace of a finite dimensional vector space. Dimension of sums of subspaces. Quotient space and its dimension	
November 2022		REAL ANALYSIS UNIT-IV Series of arbitrary terms. Convergence, divergence and oscillation. Abel's and Dirichlet's test. Multiplication of series. Double series. Partial derivation and differentiability of real-valued functions of two variables. Schwarz and Young's theorem. Implicit function theorem. Fourier series. Fourier expansion of piecewise monotonic functions.	
		. UNIT-IV Linear transformations and their representation as matrices. The Algebra of linear transformations. The rank nullity theorem. Change of basis. Dual space. Bidual space and natural isomorphism. Adjoint of a linear transformation. Eigenvalues and eigenvectors of a linear transformation. Diagonalisation. Annihilator of a subspace. Bilinear, Quadratic and Hermitian forms	
December 2022		UNIT-V Riemann integral. Intergrability of continuous and monotonic functions. The fundamental theorem of integral calculus. Mean value theorems of integral calculus. Improper integrals and their convergence. Comparison tests. Abel's and Dirichlet' tests. Frullani's integral. Integral as a function of a parameter. Continuity, derivability and integrability of an integral of a function of a parameter.	
		. UNIT-V Inner Product Spaces-Cauchy-Schwarz inequality. Orthogonal vectors. Orthogonal Complements. Orthonormal sets and bases. Bessel's inequality for finite dimensional spaces. Gram-Schmidt Orthogonalization process.	
		Revision, Test, Home Work	
January 2023			

		UNIT-III Finite State Machines - Equivalent Machines. Finite State Machines as Language Recognizers. Analysis of Algorithms - Time Complexity. Complexity of Problems. Discrete Numeric Functions and Generating Functions.	
February 2023		UNIT-IV Recurrence Relations and Recursive Algorithms - Linear Recurrence Relations with constant coefficients. Homogeneous Solutions. Particular Solution. Total Solution. Solution by the Method of Generating Functions. Brief review of Groups and Rings	
		UNIT-V Boolean Algebras - Lattices and Algebraic Structures. Duality, Distributive and Complemented Lattices. Boolean Lattices and Boolean Algebras. Boolean Functions and Expressions. Prepositional Calculus. Design and Implementation of Digital Networks. Switching Circuits.	

Department of Mathematic
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

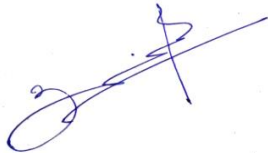B.Sc. – I YEAR   YEAR 2022-23

Name of the teacher   **: MR. DEWANAND BANDHE**

Department   **: BOTANY**

Subject/Paper   : Microbial diversity and plant pathology **(PAPER I)**

Archegoniateae and plant architecture **(PAPER II)**

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		**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, Jaminar air flow, centrifuge, colorimetry, spectrophotometry, electrophoresis, immobilization methods, fermentation and fermenters.**	
		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	
September 2022		**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)**	
		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	

Month		Topic	
October 2022		**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	
		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, Pinusand Ephedra	
November 2022		**Mycology. Mushroom Cultivation, Lichenology & Mycorrhiza:** General

characterisbe features, Economic importance and Classification of Fungi. Distinguishing characters of Myxomyçota: General characters of Mastigomycota: Phytophthora and Ifengo. Zygomycota: Rhizopus and Mucor, Ascomycota: Saccharomyces, Penicillium Pezizu. Basidiomycota: (Ustilugo, Puccinia, Agaricus, Deuteromycota: Colletotriche 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 | |
December 2022		**Plant Pathology:** Disease concept, Symptoms, Etiology. Primary and secondary Snoculum, pathogenesis, Koch's Postulates. Mechanism of infection and predisposing factors Disease reoccurrence, Defence mechanism: physical and biochemical, Disense Resistance, Systemic fungicides, Organomercurials and sulphur containing fungicides Diseases and Control, Symptoms, Causal organism, Disease cycle and Control measures	
		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	
January 2023		**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 Stent, 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**	
		. Angiosperm Morphology (Stem, Roots, Leaves, Flowers and Inflorescence: Morphology and modifications of root: Stem, leaf and bud. Types of florescences; flowers, flower parts, fruits and types of placentation; Definition	

		Revision, Test, Home Work	

February 2023		**PRACTICAL EXAMINATION**
		INSTRUMENTS & TECHNIQUES: 1. Laboratory safety and laboratory practices.
		
		2. Principles and application of Laboratory instruments-microscope, incuixatos 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: Gran's, staining
		
		MYCOLOGY:
		
		  1. Study Slide preparation and. Staining of fungi. Rhizopues Saccharomyces. Penicillium, Peziza, Ustilago, Puccinia: Eusariton Alternaria Agaricus:
		  2. Lichens: crustose, foliose and bushy specimens,
		
		  PHYCOLOGY:
		
		  1.Study Slide preparation and Staining of algae-
		
		  Volvos, Oedogonium and Chara: Vancheria: Ectocarpus Polysiphoniu
		
		  EXPERIMENTAL PLANT PATHOLOGY
		
		  Isolation of pathogen from diseased leaf.
		
		  Identification: Pathological specimens of Brown spot of rice, Bacterial hlight rice, Loose smut of wheat,, red rot of sugar cane, Tikka disease of ground rat Slides of uredial, tefial, pycnial & secial stages of Puccinia, Few viral anil bacterial plant diseases, like- Leaf curl of Papaya, Citrus canker
		
		  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. Bryophyta: Study of morphology and anatomy of: 1. Curly 2. Marchantia 3. Anthoceros 4. Sphagnum Pteridophytes: Study of morphology and anatomy of: 1. Lycopodium 2. Selaginella 3. Equisetan 4. Pieris 5. Marselia Gymnosperms: Study of morphology and anatomy of: 1. Cycas 2. Pinus 3. Ephedra	

Department of Botany
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.Sc. – II YEAR   YEAR 2022-23

Name of the teacher   :   **MR. DEWANAND BANDHE**
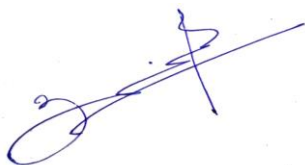
Department   :   **BOTANY**

Subject/Paper   :   PLANT TAXONOMY, ECONOMIC BOTANY,
                                                 PLANT ANATOMY AND EMBRYOLOGY) (PAPER:I)

                                                 ECOLOGY AND PLANT PHYSIOLOGY (PAPER: II)

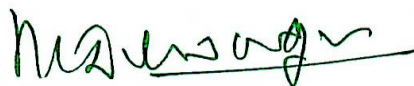| Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		Bentham and Hooker system of classification.Binomial Nomenclature, International Code of Nomenclature for Algae, Fungi, and plants (IUCN), Typification, numerical Taxonomy and chemotaxonomy. Preservation of Plant material and Herbarium techniques.Important botanical gardens and herbaria of India, Kew Botanical garden, England.	
		Introduction and scope of ecology, environmental and ecological factors, Soil formation and soil profile, Liebig's law of minimum, Shelford's law of tolerance, morphological and anatomical adapataions in hydrophytes, xerophytes and epiphytes.	
September 2022		Systematic position, distinguishing characters and economic importance of the following families, Ranunculaceae, Magnoliaceae, Brassicaeae, Rosaceae, Papaveraceae, Caryophyllaceae, Rutaceae, Cucurbitaceae, Apiaceae, Rubiaceae, Apocynaceae, Asclepiadaceae, Solanaceae, Malvaceae, Convolvulaceae, Orchidaceae, Acanthaceae, verbenaceae, Lamiaceae, Asteraceae, Fabaceae, Euphorbiaceae, Poaceae and Liliaceae.	
		Population and community characteristics, Raunkiner's life forms, population interactions (e.g. Symbiosis, Amensalism etc.), succession, ecotone and edge effect, ecological niches, ecotypes, ecads, keystone species **Concept of ecosystem, trophic levels, flow of energy in ecosystem, food chain and food web, concept of ecological pyramids** **Biogeochemical cycles:carbon cycle, nitrogen cycle and phosphorus cycle**	
October 2022		**Economic Botany: Botanical name, family, part used and uses of the following economically important plants, fiber yielding plants; Cotton, jute, sun, hemp, coir. Timber yielding plants: Sal, Teak, Shisham and Pine. Medicinal planta: Kalmegh, Ashwangandha, Ghritkumari, Giloy, Brahmi, sarpgandha, of medicinal plants of C.G. Food**	

		plants: Pearl millet, Buck of wheat, Sorghum, Soyabean, gram, Ground nut, Sugarcane and Potato	
		Plant water relations: Diffusion, permeability, osmosis, imbibitions, plasmolysis, osmotic potential and water potential, Types of soil water, water holding capacity, wilting, Absorption of water, theories of Ascent of sap, Mineral nutrition and absorption, Deficiency symptoms, Transpiration, stomatal movement, significance of transpiration, Factors affecting transpiration, guttation.	
November 2022		**Fruit plants: Pear, Peach, Litchi. Spices: Cinnamon, Turmeric, Ginger, Asafoetida and Cumin. Beverages: Tea, Coffee Rubber Cultivation of important flowers: Chrysanthemum, Dahelia, Biodiesel plants Jatropha, Pongamia Ethnobotany in context of Chhattisgarh.**	
		Photosynthesis: Photosynthetic apparatus and pigments, light reaction mechanism of ATP synthesis. C3, C4 CAM pathway of carbon reduction, photorespiration, factors affecting photosynthesis.	
December 2022		**Plant Anatomy: Root and shoot apical meristems theories of root and shoot apex organization, permanent tissues, anatomy of root, stem and leaf of dicot and monocot, secondary growth in root and stem, Anatomical anomalies in the primary structure of stems (Nyctanthes, Boerhaavia, Casuarina), Anamolous secondary growth in Dracaena, Bignonia, Laptadenia.**	
		Respiration: Aerobic and anaerobic respiration, Glycolysis, Kreb's cycle, factors affecting respiration, R.Q.	
January 2023		**Embryology: Flower as a reproductive organ, anther, microsporogenesis, types of ovules,**	
		Plant growth hormones: Auxin, Gibberellin, Cytokinin, Ethylene and Abscissic acid. Physiology of flowering, Florigen concept, Photoperiodism and Vernalization. Seed dormancy.	
		Revision, Test, Home Work	
February 2023		**PRACTICAL EXAMINATION** 1. Taxonomy: Detailed description and identification of locally available plants of the families as prescribed in the theory paper. 2. Economic Botany: Identification and comment on the plants and plant products belonging to different economic use categories 3. Preparation of Herbarium of local wild plants. 4. Quantitative vegetation analysis of a grassland ecosystem. 5. Anatomical characteristics of hydrophytes and xerophytes. 6. Demonstration of root pressure. 7. Demonstration of transpiration. 8. Demonstration of evolution of Oz in photosynthesis, factors affecting of photosynthesis.	

		9. Comparison of R.Q. of different respiratory substrates.	
		10. Demonstration of fermentation.	
		11. Determination of BOD of a water body.	
		12. Demonstration of mitosis.	

Department of Botany
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.com Email :govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.Sc. – III YEAR   YEAR 2022-23
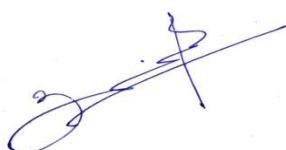
Name of the teacher   **: MR. DEWANAND BANDHE**

Department   **: BOTANY**

Subject/Paper   **:** ANALYTICAL TECHNOLOGY PLANT PATHOLOGY, EXPERIMENTAL EMBRYOLOGY, ELEMENTARY BIOSTATISTICS, ENVIRONMENTAL POLLUTION AND CONSERVATION)(PAPER:I)

GENETICS, MOLECULAR BIOLOGY, BIOTECHNOLOGY AND BIOCHEMISTRY (PAPER: II)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		Structure, Principle and applications of analytical instrumentation. Chromatography technique, Oven, Incubator, Autoclave, Centrifuge, Spectrophotometere	
		Cell and cell organelles, organization and morphology of chromosomes, giant chromosomes, cell division, Mendel's laws, gene interactions, linkage and crossing over, chromosomal aberration, polyploidy, sex linked inheritance, sex determination, cytolasmic inheritance, gene concept: cistron muton, recon.	
September 2022		Plant Tissue culture techniques, growth media, totipotency, protoplast culture, somatic hybrids and cybrids, micropropagation, somaclonal variations, haploid culture. Analytical techniques: Microscopy-Light microscope, Electron microscope	
		Nucleic acids, Structure and forms of DNA and RNA, DNA/RNA as genetic material, replication of DNA, biochemical and molecular basis of mutation, genetic code and its properties, mechanism of transcription and translation in prokaryotes, regulation of gene expression, Operon model.	
October 2022		General principles of plant pathology, general symptoms of fungal, bacterial and viral diseases, mode of infection] diseases resistance and control measures, plant quarantine. A study of epidemiology and etiology of following plant diseases. Rust diseases of wheat, Tikka diseases of groung nut, Red rot of sugar can, Bacterial blight of rice, yellow vein mosaic of b hindi, Little Leaf of brinjal.	
		Recombinant DNA, Enzymes in recombinant DNA technology, cloning vectors (Plasmid,	

		Bacteriophages, Cosmids, Phagemids), gene cloning, PCR, Application of Biotechnology; G.M.Plants, Monoclonal antibodies, DNA finger printing	
November 2022		Introduction to pollution, green house gases, Ozone depletion, Dissolve oxygen, B.O.D., C.O.D.	
		Protein: Chemical composition, primary, secondary and tertiary structure of Proteins. Carbohydrate: general account of monosaccharides, disaccharids and Polsaccharides	
December 2022		Bio magnification, Eutrophication, Acid precipitation, Pytoremediation. Plant indicators, Biogeographical Zones of India, Concept of Biodiversity, CBD, MAB, National parks and biodiversity Hot spots, Conservation strategies, Red Data Book, IUCN threat categories, invasive species, endemic species. concept of sustainable development.	
		Fat: Structure and properties of fats and fatty acids, synthesis and breakdown.	
January 2023		ELEMENTARY BIOSTATISTICS: Introduction and application of Biostatics, measure of central tendency-Mean, Median, Mode, measures of dispersal-Standard deviation, standard error.	
		ENZYMES: Nomenclature and classifaction, components of enzymes, theories of enzyme action, enzyme kinetics (Michaelis-Menten constant), allosteric enzymes, isozymes, Abzymes. Ribozymes, factors affecting enzyme activity.	
		Revision, Test, Home Work	
February 2023		**PRACTICAL EXAMINATION** 1. Study of host parasite relationship pf plant diseases listed above. 2. Demonstration of preparation of Czapek's Dox medium and potato dextrose agar medium, sterilization of culture medium and pouring. 3. Inoculation in culture tubes and petriplates. 4. Gram Staining. 5. Microscopic examination of Curd. 6. Study of plant diseases as listed in the theory paper. 7. Biochemical test of carbohydrate and protein. 8. Instrumentation techniques	

Department of Botany
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

LECTURE/TEACHING PLAN

B.Sc. – I YEAR   YEAR 2022-23

Name of the teacher   **: MR. S.N. KAMDI**

Department   **: ZOOLOGY**

Subject/Paper   **:** Animal Diversity: Non-Chordata and Chordata, Comparative
                                          Anatomy and Physiology of Non-chordates. **(PAPER I)**

                                          Cell Biology. Histology and Comparative Anatomy & Physiology of Chordates**(PAPER II)**

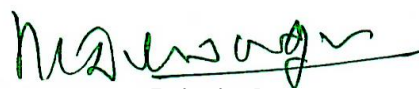| Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		**Taxonomy, Protozoa, Porifera** **Taxonomy-** Elementary knowledge of Zoological Nomenclature and International Code. Classification of Animal Kingdom upto Phylum of acoelomate and coelomate non- chordates according to Parker and Haswell7th edition. **Protozoa-** Phylum Protozoa: General characters of the phylum and classification up to order with characters and suitable examples. Structure, life history and pathogenicity of malaria parasite (Plasmodium vivax) Protozoa and disease. Porifera- Phylum Porifera: General characters of the phylum and classification up to order with characters and suitable examples. Type study of Sycon.	
		Prokaryotic and Eukaryotic cells: General structure of prokaryotes, bacteria, archaca and eukaryotes. Ultra structure and function of endoplasmic reticulum. ribosomes, Golgi apparatus, lysosome, Mitochondria, nuclear apparatus. Cell membrane and transport mechanism: Structure, composition, models and function. Fluid mosaic model Junctional complexes, membrane receptor modifications: microvilli, desmosomes and plasmodesmata.	
September 2022		**Coelenterata, Platyhelminthes, Nemathelminthes:** **Coelenterata-** PhylumCoelenterata: General characters of the phylum and classification up to order with characters and suitable examples. Type Study of Obelia. **Platyhelminthes -** Phylum Platyhelminthes: General characters of the phylum and classification up to order with characters and suitable examples. Type Study of Liverfluke. **Nemathelminthes-** PhylumNemathelminthes: General characters of the phylum and classification up to order with characters and suitable examples. Pathogenic nematodes and diseases.	
		Cell cycle, cell signaling and cell culturing: Cell cycle, cell division -mitosis and meiosis. Cell division check points and their regulation. Role of growth	

		factors. Programmed cell death (Apoptosis). **Cell regulation and cell signaling**: Signaling molecules and their receptors. Functions of cell surface receptors. Regulation of signaling pathways. **Cell culture:** Types of cell culture monolayer and suspension culture. Types of culture media. Basic characteristics of tissue culture media. Tissue culture and engineering.	
October 2022		**Annelida, Arthropoda, Mollusca:** **Annelida-** Phylum Annelida: General Characters of the phylum and classification up toorder with characters and suitable examples. Types study of Earthworm (Pheretima). **Arthropoda** - Phylum Arthropoda: General Characters of the phylum and classification up to order with characters and suitable examples. Type study of Prawn. Insects as avector of human disease. **Mollusca -** Phylum Mollusca: General characters of the phylum and classification up to order with characters and suitable examples. Type study of Pila	
		Structure and functional significance of animal tissues: Introduction to tissues. Epithelial tissue: types, structure and characteristics. Exocrine and endocrine glands: type and structure. Structure and function of loose, dense and adipose tissue. Muscular tissue: Ultra structure of smooth, skeletal and cardiac muscles Muscle contraction. Membrane of the brain and spinal cord.	
November 2022		**Echinodermata, Hemichordata, Classification Chordata:** Echinodermata Phylum Echinodermata: General characters of the phylum and classification up to order with characters and suitable examples. Type study of Starfish(Asterias). **Hemichordata -** Phylum Hemichordata: General characters of the phylum hemichordate and relationship with non-chordates and chordates. Type study of Balanoglossus **Classification of Chordata –** Classification of Chordata up to order withcharacters andsuitable examples. Brief account of Urochordata, Cephalochordata and Vertebrata	
		Structure and functional significance of animal tissues: Introduction to tissues. Epithelial tissue: types, structure and characteristies. Exocrine and endocrine glands: type and structure. Structure and function of loose, dense and adipose tissue. Muscular tissue: Ultra structure of smooth, skeletal and cardiac muscles. Muscle contraction, Membrane of the brain and spinal cord	
December 2022		**Structure and function of integument, skeletal, digestive, circulatory system:** **Integument:** Structure of integument from fish to mammals. Function of integument. Epidermal and dermal derivatives of integument and their functional significance. **Skeletal system :**Comparative account of pelvic and pectoral girdles from fishes (cartilaginous and bony)	

		to mammals. **Digestive system**: Dentition in mammals. Comparative study of alimentary canal and digestive glands from fish to mammal. Physiology of digestion in mammal. **Circulatory system:** Evolution of aortic arches and their significance. Structure and evolution of heart in vertebrates. Cardiac cycle. Blood Tiomposition and function.	
		Structure and function of integument, skeletal, digestive, circulatory system: **Integument:** Structure of integument from fish to mammals. Function of integument. Epidermal and dermal derivatives of integument and their functional significance. **Skeletal system** : Comparative account of pelvic and pectoral girdles from fishes (cartilaginous and bony) to mammals.	
January 2023		**Comparative Anatomy and Physiology of Non-chordates:** Coelom and coelomductsin Non-chordate. Locomotory organs and locomotion in Non-chordate Pattern of feeding and digestion in lower Metazoans. Comparative anatomy and physiology of respiration and excretion in Non-chordate. Primitive, diffused and advance nervous system in Non-chordate. Reproduction in Non-chordates	
		Structure and function of circulatory, respiratory, excretory, reproductive and endocrine system: Respiratory system: Aquatic and terrestrial respiration. Comparative anatomy of lungs in amphibian, reptile, bird and mammals. **Excretory system**: Physiology of excretion, urine formation. **Reproductive system**: Comparative details of testes and ovaries from fishes to mammals. Estrous and menstrual cycle. **Endocrine system:** Types and functional significance of endocrine glands and hormones.	
		Revision, Test, Home Work	
February 2023		**PRACTICAL EXAMINATION** 1. Major Dissection 2. Minor Dissection 3. Comments on Excersice based on Adaptation 4. Cytological Preparation 5. Spots-8 (Slides-4, Specimens-4) 6. Sessional	

Department of Zoology
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.Sc. – II YEAR   YEAR 2022-23

Name of the teacher   :   **MR. S.N. KAMDI**
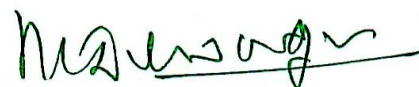
Department   :   **ZOOLOGY**

Subject/Paper   :   Anatomy and Physiology (PAPER:I)
VERTEBRATE ENDOCRINOLOGY, REPRODUCTIVE BIOLOGYBEHAVIOUR, EVOLUTION AND APPLIED ZOOLOGY (PAPER: II)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		• Integument and its derivatives: structure of scales, hair and feathers • Alimentary canal and digestive glands in vertebrates • Respiratory organs : Gills and lung , air-sac in birds	
		• Structure and function of Endocrine glands • Hormone receptor • Biosynthesis and secretion of thyroid, adrenal, ovarian and testicular hormones • Endocrine disorder of pituitary, thyroid, adrenal and pancreas	
September 2022		• Endoskeleton: (a) Axial Skeleton- Skull and Vertebrae, (b) Appendicular Skeleton Limbs and girdles • Circulatory System: Evolution of heart and aortic arches • Urinogenital System: Kidney and excretory ducts	
		• Reproductive cycle in vertebrates • Menstruation, lactation and pregnancy • Mechanism of parturition • Hormonal regulation of gametogenesis	
October 2022		• Nervous System: General plan of brain and spinal cord • Ear and Eye: structure and function • Gonads and genital ducts	
		• Evidences of organic evolution. • Theories of organic evolution. • Variation, Mutation, Isolation and Natural selection. • Evolution of Horse	
November 2022		• Digestion and absorption of dietary components • Physiology of heart, cardiac cycle and ECG • Blood Coagulation • Respiration: mechanism and control of breathing	

		• Introduction to Ethology: Branches and concept of ethology. • Patterns of Behaviour, Taxes, Reflexes, Drives and Stereotyped behaviour. • Reproductive behavioural patterns. • Drugs and behavior, Hormones and behaviour	
December 2022		• Excretion: Physiology of excretion, osmoregulation • Physiology of muscle contraction • Physiology of nerve impulse, Synaptic transmission	
January 2023		• Prawn Culture • Sericulture • Apiculture • Pisciculture • Poultry keeping • Elements of Pest Control: Chemical & Biological Control	
		Revision, Test, Home Work	
February 2023		**PRACTICAL EXAMINATION** • Major dissection (Cranial nerves/efferent branchial vessel) • Exercise based on evolution • Exercise based on applied zoology • Exercise based on animal behavior • Spotting-8 (slides-4,bones-2,specimen-2) • Viva • Sessional marks.	

Department of Zoology
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com   Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.Sc. – III YEAR   YEAR 2022-23

Name of the teacher   **: MR. S.N. KAMDI**

Department   **: ZOOLOGY**

Subject/Paper   **:** ECOLOGY, ENVIRONMENTAL BIOLOGY: TOXICOLOGY, MICROBIOLOGY
                                          AND MEDICAL ZOOLOGY(PAPER:I)

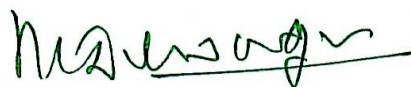   GENETICS, CELL PHYSIOLOGY, BIOCHEMISTRY,   BIOTECHNOLOGY AND
                                          BIOTECHNIQUES(PAPER: II)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		**I (Ecology)** • Aims and scopes of ecology • Major ecosystems of the world-Brief introduction • Population- Characteristics and regulation of densities • Communities and ecosystem • Bio-geo chemical cycles • Air & water pollution • Ecological succession	
		(Genetics) • Linkage & linkage maps, Sex Determination and Sex Linkage • Gene interaction- Incomplete dominance & Codominance, Supplementary gene, Complementary gene, Epistasis Lethal gene, Pleiotropic gene and multiple alleles. • Mutation: Gene and chromosomal mutation • Human genetics: chromosomal alteration: Down, Edward, Patau, Turner and Klinefelter Syndrome Single gene disorders: Alkaptonuria, Phenylketonuria, Sickle cell anemia, albinism and colour blindness	
September 2022		**II(Environmental Biology)** • Laws of limiting factor • Food chain in fresh water ecosystem • Energy flow in ecosystem- Trophic levels • Conservation of natural resources • Environmental impact assessment	
		(Cell Physiology) • General idea about pH & buffer • Transport across membrane: Diffusion and Osmosis	

Month		Topic	
		• Active transport in mitochondria & endoplasmic reticulum • Enzymes-classification and Action	
October 2022		III(Toxicology) • Definition and classification of Toxicants • Basic Concept of toxicology • Principal of systematic toxicology • Heavy metal Toxicity (Arsenic, Murcury, Lead, Cadmium) • Animal poisons- snake venom, scorpion & bee poisoning • Food poisoning	
		(Biochemistry) • Amino acids & peptides- Basic structure & biological function • Carbohydrates & its metabolism- Glycogenesis; Gluconeogenesis; Glycolysis; Glycogenolysis; Cosi-cycle • Lipid metabolism- Oxidation of glycerol; Oxidation of fatty acids • Protein Catabolism- Deamination, transamination, transmethylation	
November 2022		IV(Microbiology) • General and applied microbiology • Microbiology of domestic water and sewage • Microbiology of milk & milk products • Industrial microbiology: fermentation process, production of penicillin, alcoholic breverages, bioleaching.	
		(Biotechnology) • Application of Biotechnology • Recombinant DNA & Gene cloning • Cloned genes & other tools of biotechnology (Tissue culture, Hybridoma, Trasgenic Animals and Gene library)	
December 2022		V(Medical Zoology) • Brief introduction to pathogenic microorganisms, Ricketssia, Spirochaetes, AIDS and Typhoid • Brief account of life history & pathogenicity of the following pathogens with reference to man: prophylaxis & treatment • Pathogenic protozoan's- Entamoeba, Trypanosome & Plasmodium • Pathogenic helminthes- Schistosoma • Nematode pathogenic parasites of man • Vector insects	
		Revision, Test, Home Work	
January 2023		(Biotechniques) 1. Principles & techniques about the faollowing: (i) pH meter (ii) Colorimeter (iii) Microscopy- Light microscopes: Compound, Phase contrast & Electron microscopes	

		(iv) Centrifuge (v) Separation of biomolecules by chromatography & electrophoresis	
February 2023		**PRACTICAL EXAMINATION** • Hematological Experiment • Ecological Experiment: Grassland Ecosystem/ Population Density/Frequency/relative density • Bacterial staining • Biochemical experiment • Practical based on Instrumentation (Chromatography/ pH meter/microscope/centrifuge.) • Spotting (5 spots) •Viva •Sessional	

Department of Zoology
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com   Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.A. – I YEAR   YEAR 2022-23
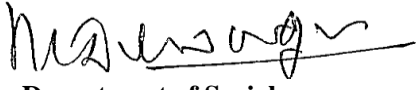
Name of the teacher   **: DR. B. K. DEWANGAN**

Department   **: SOCIOLOGY**

Subject/Paper   **: INTRODUCTION TO SOCIOLOGY (PAPER I)**
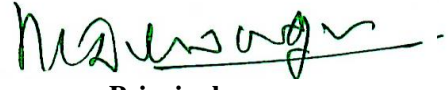
CONTEMPORARY INDIAN SOCIETY(PAPER II)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		**Sociology: Meaning, Nature, scope, Subject matter and significance.** **Basic concepts: Society, Community, institution, Association, group, Status and role.**	
		Classical View about Indian Society: Verna, Asharam, Karma, Dharma and Purusharth.	
September 2022		**Social Institutions: Marriage, Family and kinship. Culture and society: Culture, socialization, The individual and society, socialcontrol, norms and values.**	
		he Structure and composition of Indian society. **Structure; Village, Towns, Cities and Rural - Urban Linkage, Compositions: Tribes, Dalits, Women and Minorities.**	
October 2022		**Social Stratification: Meaning, forms and theories.** **Social Mobility: Meaning, forms and theories.**	
		Basic Institutions of Indian Society:Caste system, Joint Family, Marriage and Changing dimensions.	
November 2022		**Social change: Meaning and patterns, types, factors, evolution and progress.**	
December 2022		**Social System and process: Social System- meaning, characteristics and elements. Social process- Meaning, elements, characteristics and types.**	
January 2023		**Familial Problems:Dowry, Domestic violence, Divorce, Intra-intergenerational conflict, problem of elderly.**	
		Revision, Test, Home Work	

February 2023		Surrogate Motherhood, Live in Relationship, Regionalism, Communalism, Corruption, Youth unrest.	

Department of Sociology
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

LECTURE/TEACHING PLAN

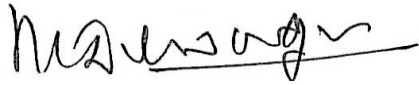B.A.. – II YEAR   YEAR 2022-23
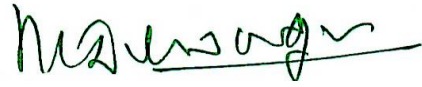
Name of the teacher   **: DR. B.K. DEWANGAN**

Department   **: SOCIOLOGY**

Subject/Paper   **:SOCIOLOGY OF TRIBAL SOCIETY**(PAPER:I)

                                         CRIME AND SOCIETY(PAPER: II)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		**UNIT-I Tribes: Concepts, Characteristics, Tribes and Schedule Tribes, Distinction between Tribe and Caste.**	
		UNIT-I Concept of Crime: Meaning, Characteristics and Types. **School of Crime: Classical, Sociological and Psychological.**	
September 2022		**UNIT-II Classification of Tribal people: Food gatherers and hunters, Shifting cultivates, Nomads, Peasant settled Agriculturists and Artisans.**	
October 2022		**UNIT-II Structure of Crime: Anomie, Criminality and Suicide. Organized Crime, White Collar Crime and Cyber Crime**	
		UNIT-III Socio-cultural Profile: Kinship, Marriage, Family, Religion and belief cultural traditions.	
November 2022		**UNIT-III Social Evils and Crime: Alcoholism, Drug Addiction, Dowry and Beggary.**	
December 2022		**UNIT-IV Tribal sensitization: Tribal Mobility, Schemes of Tribal Development, Various Tribal Movements.**	
		UNIT-IV Punishment: Meaning, Characteristics, Objectives and Types, Major Theories of Punishment.	

January 2023		**UNIT-V Problems of Tribal People: Poverty, Illiteracy, Indebtedness, Agrarian issues, Exploitation study of tribal communities in Chhattisgarh with special reform to Particularly Venerable Tribal Groups (PVTG).**	
		Revision, Test, Home Work	
February 2023		**UNIT-V Correctional Process: Role of Police and Judiciary in India, Development of Jail reforms in India and Modern correctional concepts-Probation, Parole and after care Programe**	

(C.G.)Department of Sociology
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

LECTURE/TEACHING PLAN

B.A. – III YEAR   YEAR 2022-23
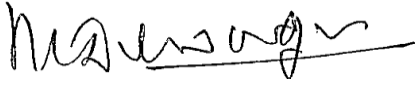
Name of the teacher   **: DR. B.K. DEWANGAN**

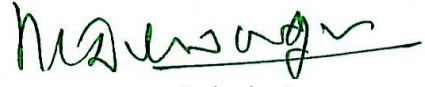Department   **: SOCIOLOGY**

Subject/Paper   **:**FOUNDATIONS OF SOCIOLOGICAL THOUGHT (PAPER:I)

METHODS OF SOCIAL RESEARCH (PAPER: II)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		UNIT-I August Comte: The Law of Three Stages, Positivism, Hierarchy of Science. Durkheim: Social Solidarity and Suicide	
September 2022		UNIT-II Karl Marx: Dialectic Materialism, Class Struggle and Surplus value. Max Weber: Bureaucracy, Authority and the Protestant Ethic and the spirit of Capitalism.	
October 2022		UNIT-III Pareto: Circulation of Elits and Logical and Nonlogical action. Spencer: Social Darwinism, Superorganic evolutions.	
		UNIT-I Social Research: Meaning, Characteristics and Significance. Scientific Methods, Hypothesis.	
November 2022		UNIT-IV Thorstein Veblen: The Theory of Leisure Class, Theory of Social Change R.K. Morton: Functionalism and Reference Group.	
		UNIT-II Qualitative Research: Ethnography, Observation, Case Study, Content analysis.	
December 2022		UNIT-V Development of Sociological thought in India:- Mahatma Ghandhi : Ahimsa, Satya Graha and Trusteeship. RadhaKamal Mukherjee: The Concept of Value	
		UNIT-III Research design: Exploatory, Descriptive, Explanatory, Experimental and Diagnostic.	
January 2023			
		UNIT-IV Tools and Techniques of Social Research: Social Survey, Sampling, Questionnaire, Interview- Schedule and Interview - Guide	
February 2023		UNIT-V Social Statistics: Meaning, Importance and Limitations. Graphs, Diagram and Measures	

		of Central Tendency- Mean, Mode, Median, Co-relation, Use of Computer in Social Research	

Department of Sociology

Govt.Rani Avanti Bai Lodhi College,

Ghumka, Distt. – Rajnandgaon (C.G.)

(C.G.)**Principal**

Govt.Rani Avanti Bai Lodhi College,

Ghumka, Distt. – Rajnandgaon (C.G.)

LECTURE/TEACHING PLAN

B.A. – I YEAR   YEAR 2022-23

Name of the teacher   **: MR. DEEPAK VERMA**

Department   **: HISTORY**

Subject/Paper   **: History of Indian form beginning to 1206 AD (PAPER I)**

                                          History of world form 1453 AD to 1890 AD(PAPER II)

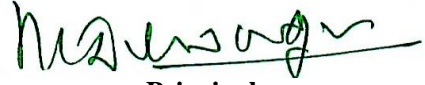| Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		**1. Geographical structure of India** **2. Survey of sources of Indian history** **3. Complete Stone Age and Late Stone Age** **4. Harappan Civilization- Creator, spread, city planning, political, social, economic structure**	
		1. Characteristics of the modern era in Europe, Renaissance **2. Religious reformation and counter- reformation movement** **3. Rise of national states Spain, France** **4. Rise of national states England, Russia**	
September 2022		**5. Rigvedic period – political, social, economic** **6. India's Mahajanapada period of the sixth century BC** **7. Jainism and Buddhism** **8. Alexander's attack and its impact**	
		1. Commercialism, colonialism **2. Industrial Revolution** **3. Civil War in England, events, causes and consequences** **4. Glorious Revolution (1688)**	
October 2022		**9. Chandragupta Maurya and Ashoka** **10. Maurya Administration, Art and Culture, Dhamma of Ashoka**	

		11. Post- Maurya period – Shunga, Kushan and Satavahana 12. Confluence Age- Literature, Culture, Chola and Pandya	
		1. America's freedom struggle Unit-3 2. Causes and effects of the French Revolution 3. Napoleonic era 4. Vienna Congress	
November 2022		13. Gupta era- Conquests of Samudragupta and Chandragupta II, governance, economic, social, cultural condition 14. Origin and administrative and social characteristics of Rajputs 15. Pallava, Chalukya, Vardhan, Pala, Rashtrakuta 18 India's relations with South East Asia and Sri Lanka 17. Attack of Mohammad Bin Qasim, Mahmud Ghaznavi and Muhammad Ghori	
December 2022		18. Introduction of Chhattisgarh – Naming and geographical status 19. Major regional kingdoms of Chhattisgarh- Panduvash, Sharabhpuriya. 20. Major dynasties of Chhattisgarh are Nalvansh, Chhindak Nagvansh, 21. Kalchuri dynasty, political and administrative system of South	
January 2023			
		1. Conservatism- Maternik, internal and foreign policy 2 Revolutions of 1830 AD and 1848 AD in Europe 3. Liberalism in England, Reform Act of 1832 and 1867 AD 4. Causes of Eastern Problem, Crimean War, Berlin Conference	
		Revision, Test, Home Work	

February 2023		1. Unification of Italy.	
		2. Unification of Germany	
		3. Bismarck's home policy	
		4. Bismarck's foreign policy	

Department of History
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com   Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.A. – II YEAR   YEAR 2022-23

Name of the teacher   **: MR. DEEPAK VERMA**

Department   **: HISTORY**

Subject/Paper   **:HISTORY OF INDIA FROM 1206 AD TO 1761 AD**(PAPER:I)

HISTORY OF WORLD FROM 1890 AD TO 1964 AD(PAPER: II)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		**unit 1** 1. Sources of history of Sultanate and Mughal period 2. Slave dynasty Aibak, Iltutmish, Balban 3. Khilji Dynasty- Alauddin Khilji- Military achievements, revenue system and market control 4. Tughlaq Dynasty- Mohammad Bin Tughlaq,	
		unit 1 1. World Politics of William II 2. Partition of Africa 3. Modernization of Japan- Meiji Restoration and Modernization of Japan	
September 2022		**Unit-2** 1. Establishment of Mughal Empire by Babar and Humayun 2. Administration of Sher Shah Suri 3. Rajput policy of Akbar 4. Religious policy of Mughal rulers from Akbar to Aurangzeb **Unit-2** 4. Russo- Japanese War: Causes and Consequences	

		5. China Opium War and China's Revolution, Communism 6. Eastern Problem - Berlin Congress, Young Turk Movement 7. Balkan War: Causes and Consequences	
October 2022		**Unit-3** 1. Mughal Administration 2. Medieval social and economic condition 3. Bhakti Movement 4. Sufism	
		Unit-3 1. World War I: Causes and Consequences 2. Treaty of Versailles 3. Russian Revolution 1917 AD 4. Fascism – Pusolini	
November 2022		unit 4 1. Medieval literature, art and architecture 2. Vijayanagara State 3. Bahmani State 4. Shivaji's administration	
December 2022		UNIT 5 1. Peshwa Balaji Vishwanath, Balaji Bajirao 2. Third Battle of Panipat – Causes and results 3. Chhattisgarh under Marathas Bimbaji Bhosale 4. Maratha administration in Chhattisgarh	
January 2023			
		UNIT 4 1. Nazism – Hitler 2. Japan's militarism 3. League of Nations: Establishment and Wilson's 14 points	

		4. World War II: Causes and consequences	
February 2023		**UNIT 5** 1. **United Nations – Establishment and Organization, Achievements** **2. Cold War** **3. Non- Aligned Movement and Panchsheel Principle** **4. Challenge of world peace – Korea and Palestine problem** **5. A unipolar world**	

Department of History
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.A . – III YEAR   YEAR 2022-23

Name of the teacher   **: MR. DEEPAK VERMA**

Department   **: HISTORY**

Subject/Paper   **:HISTORY OF INDIA FROM 1761 AD TO 1947 AD** (PAPER:I)

HISTORY OF NATIONAL MOVEMENT OF INDIA FROM 1857 AD TO 1947 AD (PAPER: II)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		Unit 1 1. Arrival of Europeans in India 2. Anglo- French rivalry – Karnataka War 3. Expansion of the British Empire Battle of Plassey and Buxar 4. Expansion of the British Empire, Wellesley's Subsidiary Treaty, Dalhousie's annexation policy	
		Unit 1 1. Rise of nationalism 2. Causes and consequences of the revolution of 1857 AD 3. Establishment of Indian National Congress Objective, Liberalism, Extremism 4. Partition of Bengal and Swadeshi Movement 5. Revolutionary Movement- First and Second Phase	
September 2022		Unit-2 1. British Administrative Reforms- Lord William Bottinck 2. Administration of Lord Curzon 3. Impact of European mercantilism in India – decline of industries and trade.	
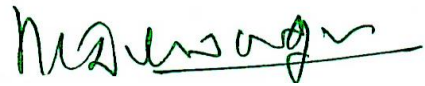
		Unit-2 1. Rise of communalism in Indian politics – Establishment of Muslim League 2. Home Rule Movement 3. Lucknow Pact 4.Gandhian Movement Non- cooperation Movement	
October 2022		Unit-3 1. Different social classes- farmers, labourers, women 2. Decline of agriculture and farmers movement 3. Land Revenue Systems - Permanent Settlement, Ryotwadi, Mahalwadi 4. Indian Renaissance- Brahmo Samaj, Arya Samaj 5. Muslim Social Reform Movement- Aligarh Movement	
November 2022		unit 4 1. Origin and development of rail transport 2. Decline of handicraft industries 3.East India Company's relation with the princely states 4. Development and press of western education	
		Unit-3 1. Civil Disobedience Movement 2. Tribal labor and farmers movement 3. Quit India Movement 4. Azad Hind Fauj	
December 2022		Unit 5 1. Administrative system of Chhattisgarh during the British control period	

		2.British era administrative system 3. Social reform in Chhattisgarh- Kabir Panth and Satnam Panth. 4. Tribal culture of Chhattisgarh	
January 2023			
		Unit 4 1. Partition and independence of India 2. Merger of princely states 3. Salient features of the Indian Constitution 4. Revolution of 1857 AD in Chhattisgarh, Narayan Singh and Hanuman Singh.	
February 2023		Unit 5 1.Bastar's Muria rebellion and Bhoomkal movement 2. Gandhian movement in Chhattisgarh 3. Merger of princely states in Chhattisgarh	

Department of History
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com   Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.A. – I YEAR   YEAR 2022-23

Name of the teacher   **: DR. ROHAN PRASHAD**

Department   **: ECONOMICS**

Subject/Paper   **: Micro Economics, Paper-I (PAPER I)**

                                         Indian Economy , Paper-II(PAPER II)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		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	
		Pre and post independent Indian economy: A short introduction of economic policies of British India, State of economy at the time of independence, Planning exercise in India-Planning in India through different five Year Plans, The planning commission and NITI Aayog, Growth and development in pre-reform period, New Economic Reforms: Liberalization, Privatization and Globalization, Growth, development and structural change in post-reform period.	
September 2022		Theory of production and cost, Production decision, 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.	
		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, International comparison in human development and poverty reduction.	
October 2022		Market structure-perfect and imperfect markets, Equilibrium of a firm-Perfect competition, Monopoly and price discrimination, Monopolistic competition, Duopoly, Oligopoly, controlled and administered prices.	
November 2022		Factor pricing-Marginal productivity theory of distribution, Euler's theorem, 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.	
		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.	
December 2022		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, Scitovsky paradox, Social welfare function and social choice: Bergson- Samuelson social welfare function, Prof. Amartya Sen's critique, Arrow impossibility theorem.	
January 2023			
		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.	
		Revision, Test, Home Work	
February 2023		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, Current macroeconomic policies and their impact, fiscal policies and monetary policy.	

Department of Economics
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com   Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.A. – II YEAR   YEAR 2022-23

Name of the teacher   **: DR. ROHAN PRASHAD**

Department   **: ECONOMICS**

Subject/Paper   **:** Macro Economics(PAPER:I)

Money, Banking and Public Finance, (PAPER: II)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		UNIT 1 National Income: Concept and measurement of national income, Economic welfare and national income, Social accounting. Circular flow of income, National income accounting, Green accounting Classical theory of employment, Say's law of market Keynesean theory of employment	
		UNIT 1 Basic concepts : Money - meaning and functions, Gresham's law; Quantity theory of money- Cash transaction and cash balance approaches; Value of Money, Inflation, deflation and reflation, types, causes and effects on different sectors of the economy; Demand pull and cost push inflation; Measures to control inflation. Phillips curve, Concept of demonetization.	
September 2022		. UNIT 2 Consumption Function - Average and marginal propensity to consume, Keynes's psychological law of consumption. Determinants of the consumption function. The saving function. The investments multiplier and its effectiveness, The investment Function - marginal efficiency of capital, Autonomous and induced investment. Saving and investment equality.	
October 2022		UNIT 3 Nature and Characteristics of trade cycle, Theories of trade cycle: Hawtrey's monetary theory, Hayek's over investment theory, Keynes's view on trade cycles, Schumpeter's theory of innovation, Samuelson and Hicks multiplier accelerator model, Control of trade cycle.	
		UNIT 2 Commercial banking- meaning and types; Functions of commercial banks, The process of credit creation, purpose and limitations; Liabilities and assets of banks; Evolution of commercial banking in India after independence; A critical appraisal of the progress of commercial banking after Nationalization, Functions of a central bank; Quantitative and qualitative methods of credit control; Bank rate policy; Open market operations; Variable reserve ratio and selective	

		methods. Role and functions of the Reserve bank of India; Objectives and limitations of monetary policy with special reference to India.	
November 2022		UNIT 4 International Trade - Inter-regional and international trade, Comparative advantage cost theory, Opportunity cost theory and Heckscher Ohlin theory, International trade and economic development, Tariffs & import quotas, Concept of optimum tariff. Balance of trade & balance of payment., Concept & components of BOP, Equilibrium & disequilibrium in BOP, Relative merits & demerits of devaluation, Foreign trade multiplier.	
December 2022		UNIT 5 Functions and objectives of international monetary fund, World Bank and World Trade Organization, International monetary reforms and India, Foreign trade in India recent change in the composition and direction of foreign trade, India's balance of payment, Export promotion and import substitution in India. Multinational Corporation and India.	
		UNIT 3 Meaning and scope of public finance; Distinction between private and public finance; public goods v/s private goods; The Principle of maximum social advantage; Role of the government in economic activities ; Public expenditure - Meaning, classification and principles of public expenditure; Trends in public expenditure and causes of growth of public expenditure in India.	
January 2023			
		UNIT 4 Sources of Public revenue; taxation - Meaning, Canons and classification of taxes; Division of tax burden. The benefit and ability to pay approaches; Impact and incidence of taxes; Taxable capacity; Effects of taxation; Characteristics of a good tax system; Equity and Justice in Taxation, Major trends in tax revenue of the Central and State Government in India.	
February 2023		UNIT 5 Public debt and financial administration: Sources of public borrowing, Effects of public debt. Methods of debt redemption. The public budget- Kinds of budget, Economic and functional classification of the budget; Preparation and passing of budget in India	

Department of Economics
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

LECTURE/TEACHING PLAN

B.A. – III YEAR   YEAR 2022-23

Name of the teacher   **: MR. ROHAN PRASHAD**

Department   **: ECONOMICS**

Subject/Paper   **:**Development and Environmental Economics, (PAPER:I)

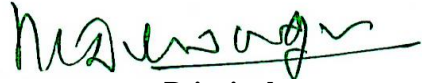   Statistical Methods (PAPER: II)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		UNIT 1 Economic Growth and Development: Factor affecting economic growth (Labour, capital and technology), Developed and under developed Economy, Povertyabsolute & relative, Marxian model of Economic Growth, Mahalanobis Model of Economic Growth. Balanced and unbalanced growth.	
September 2022		UNIT 2 Problems of Population and growth pattern of population. Theory of demographic transition. Population, poverty and environment. Schumpeter's theory of economic growth, Theory of Big-Push, Nelson's theory of low-level income equilibrium trap , Theory of Critical minimum efforts	
October 2022		, UNIT 3 Harrod and Domar growth model, Solow's model of economic growth, Meades Neo classical models, , Mrs. Joan Robinson's growth model , A. Lewis theory of unlimited supply of labour.	
		UNIT 1 Statistics : Definition of Statistics, Importance and Limitations of Statistics, Importance of Statistics in Economics, Statistical investigation, Census and sampling methods of statistical investigation, Statistical data, Collections of Data, Primary & Secondary Data.	
November 2022		UNIT 4 Environment: Environmental and use, environmental disruption as an allocation, problem. valuation of environmental damages- land, water , air & forest , prevention control and abatement of pollution, choice of policy instruments in developing countries, environmental legislation, indicators of sustainable development, environmental accounting	
		UNIT 2 Measuring of Central Tendency: Mean, Median, Mode, measures of Skewness, Probability-basic concepts meaning and definitions	
December 2022		UNIT 5 Concept of Intellectual Capital : Food Security, Education, Health & Nutrition, Role of agriculture in economic development, Land reforms, Efficiency	

		&Productivity in Agriculture, new technology & Sustainable agriculture, Globalization & agriculture growth, the choice of technique appropriate technology & employment.	
		UNIT 3 Dispersion: Meaning of Dispersion, Methods of measuring Dispersion, Range, Quartiles Deviation ,Mean Deviation, Coefficient of Mean Deviation, Standard Deviation.	
January 2023			
		UNIT 4 Correlation Analysis: Meaning and types of correlation ,Degree of correlation, Coefficient of correlation-Karl Pearson's Method, Spearman's Rank Difference Method. Probable error and standard error.	
February 2023		UNIT 5 Index Number- Methods of constructing of Index Numbers, Fisher's methods, Dorbish-Bowles method, Paasches method, Laspeyres method, Consumer price index numbers, Reversal test, Circular Test, Time series analysis-Meaning, Components of time series, Measurement of long term trend by average method.	

Department of Economics
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com   Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.A. – I YEAR   YEAR 2022-23

Name of the teacher   **: MRS. YOGITA BANJARE**

Department   **: POLITICAL SCIENCE**

Subject/Paper   **: POLITICAL THOUGHTS (PAPER I)**

                             INDIAN GOVT. AND POLITICS (PAPER II)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		**C. Meaning definitions of political science-** Traditional and modern, importance of the study of political science. Power, Authority **D.** Meaning, characteristics, lypes Legitimacy Concept, relationship of power, authority and legitimacy. **C.** Study methods of political science Traditional and modern Behaviouralism and post-behaviouralism.	
		Non-coopertaion Movement, civil Disobedience Movement Constitutional Develoment of India Acts of 1909 and 1935.	
September 2022		Stale Concept, Development of State, Essential Elements Various theories of state origin, Theories of state, Marxist, liberal, neo-liberal, pluralist, fermnist Role of the state- Public welfare state	
		Constitutiona of India Preamble, features, Source Schedules, citizenship Fundamental Right and Duties, Directive Principal of State Policy Constitution Amendment Process.	
October 2022		President. Vice President, Council of Ministers and Prime Minister. Federal Parliament Lok Sabha and Rajya Sabha. Supreme court-Organization Functions, Powers, Judicial Review Judicial Activism. Election, comptroller and auditor general.	
		Sovereignty: Meaning, Definition Characteristics, Principles of Sovereignty: Legal or Monistic and Pluralist. Pluralism: Meaning Features Rights: Meaning, types major Theories, Duties Freedom Meaning Types, Positive and Negative Theory of Freedom Equality Meaning type and relation to freedom. Democracy Meaning definitions Principles of democracy Necessary conditions for the success of Democracy Major challenges before democracy. Merits and demerits Direct democracy.	

November 2022		Forms of Government: Unitary and Federal, Parliamentary and Presidential. Dictatorsnip Organs of Government Legislature. Executive and Judiciary. Theory of Separation of Powers and Checks and Balances Constitution meaning and kinds. Theories of representation and Electoral Process Fascism, Totalitarianism.	
		Legislature, Executive Governor, Council of Ministers and Chief Minister. State High Court-Organization, Functions, Rights	
December 2022		Public Welfare State. Party System: meaning, kinds, major theories merits and demerits Pressure Groups: meaning, kinds and technique Social Change meaning, characteristics, theories Feminis. Concept, main approaches to feminism Nationalism: concept, major dimensions	
January 2022		Center State Relations Legislative, Financial Administrative Comptroller and Auditor General Union and State Public Service Commission Major issues of Indian politics Caste, religion, Panchayati Raj system secularism	
		Revision, Test, Home Work	
February 2022		Center State Relations Legislative, Financial Administrative Comptroller and Auditor General Union and State Public Service Commission Major issues of Indian politics Caste, religion, Panchayati Raj system secularism	

Department of Political Science
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

LECTURE/TEACHING PLAN

B.A. – II YEAR   YEAR 2022-23
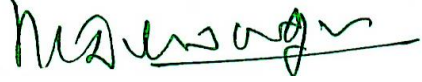
Name of the teacher   **: Mrs. YOGITA BANAJRE**

Department   **: POLITICAL SCIENCE**

Subject/Paper   **: Political thought (PAPER I)**

                                         Comparatice Government and Politics (PAPER I)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		Plato: Ideal State: Justice, Education, Communism, Philosopher King. Aristotle State, Slavery, Citizenship, Revolution.	
		British Constitution: Evolution, Salient Features, Executive, Legislature and did Judiciary.	
September 2022		Constitution of United States of America: Salient Features, Executive, Legislature and Judiciary. Theory of Separation of Powers and checks and balances.	
October 2022		Machiavelli: Child of his times, Religion and Morality, Duties and Conduct of King. Hobbes: Social Contract Theory: Leviathan. Locke Social Contract Theory. Rousseau: Social Contract Theory and General Will.	
November 2022		Bentham: Utiliterianism. Mill: Amendment in Utiliterianism. Liberty and Representative Government. Green: Political Thoughts. Marx: Political Thoughts.	
		Constitution of Switzerland: Salient Features, Executive, Legislature and Judiciary. Direct नवम्बर Democracy.	
December 2022		Idealism, Individualism, Liberalism, Fascism: Features and Criticism.	
		Constitution of China: Salient Features, Executive, Legislature and Judiciary. Communist Party.	
January 2023		Comparative Politics: meaning, Definition. System Theory of David Easton,Structural-functional Approach of Almond. Concept of Political Development, PoliticalSocialisation, Political Culture	
		Revision, Test, Home Work	
February 2023		Manu and Kautilya: Saptang Theory, King and Kingship, Administrative	

		System, Rajyamandal.
		Gandhi: Truth, Non violence, Satyagrah and Political thoughts.
		Ambedkar: Political and Social thoughts.
		Deen Dayal Upadhyay: Akatmamanavvad.

Department of Political Science
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.A. – III YEAR   YEAR 2022-23

Name of the teacher   **: Mrs. YOGITA BANAJRE**

Department   **: POLITICAL SCIENCE**

Subject/Paper   **: INTERNATIONAL POLITICS AND FOREGIN POLICY OF INDIA (PAPER I)**

                                       PUBLIC ADMINISTRATION (PAPER II)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		International Politics: meaning, Nature, Scope International Politics: Approaches to the study Realsim, idealism, New Realism World System Theory, National interest and National power: Meaning Definition and Elements.	
		Public Administration: meaning and Definition Nature, scope, Public Addminstration and Privet Administration. Method of studies. New Public Administration. Corparative Administration.	
September 2022			
		Principles of Organisation : Hierarchy, Span of Control, Unity of Command, Delegation. Chief Executive. Line and Staff Agencies. Departmental Organisation. Public Corporation. Personnel Administration: Recruitment, Promotion, Training.	
October 2022		Various theories of International Politics : System, Game, Decision making, Barganing theory. Balance of Power, Collective Security, Disarmament, Cold war, Diplomacy	
November 2022		Foreign Policy of India: Determinating elements, characteristics. Non- ` alignment: meaning, features , relevance.	
		Development Administration: Nature, Issues, Characteristics.Riggs Model. Public participation in Administration.Good Governance and e- Governance. Union Public Service Commission.	
December 2022		Financial Administration: Principles of Budget. Budget procedure in India. Administrative reforms in India. Executive, Legislative, Judicial and Public Control on Administration.	

		Revision, Test, Home Work	
January 2023		Indias' relations with neighboring countries : China , Pakistan, Nepal, Sri lanka, Relations with Super Powers - USA, Russia, Britain and France.	
		Some major issues of International Politics : Environmentalism, International Terrorism, Globalisation, Human Rights, Nuclear Disarmament.	
February 2023		Corruption in Administration: Ombudsman, Lokpal and Lok Ayukta. Public Administration in the age of Globalisation. Liberalisation. Bureaucracy.	

Department of Political Science
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com   Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.A., B.Sc., B.Com. – I YEAR   YEAR 2022-23

Name of the teacher   **: MR. VINOD VERMA**

Department   **: HINDI**

Subject/Paper   **:(PAPER I)**

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		क. पल्लवन, पत्राचार, अनुवाद, पारिभाषिक शब्दावली एवं हिंदी में पदनाम ख. ईदगाह (कहानी) – मुंशी प्रेमचंद	
September 2022		क. शब्द शुद्धि, वाक्य शुद्धि, शब्द ज्ञान–पर्यायवाची शब्द, विलोम शब्द, अनेकार्थी शब्द, समश्रुत शब्द, अनेक शब्दों के लिए एक शब्द एवं मुहावरे–लोकोक्तियाँ ख. भारत वंदना (कविता)–सूर्यकान्त त्रिपाठी निराला	
October 2022		क. देवनागरी लिपि –नामकरण, स्वरूप एवं देवनागरी लिपि की विशेषताएँ, हिंदी अपठित गद्यांश, संक्षेपण, हिंदी में संक्षिप्तीकरण ख. भोलाराम का जीव (व्यंग्य) – हरिशंकर परसाई	
November 2022		क. कम्प्यूटर का परिचय एवं कम्प्यूटर में हिंदी का अनुप्रयोग ख. शिकागो से स्वामी विवेकानंद का पत्र	
December 2022		क. मानक हिन्दी भाषा का अर्थ, स्वरूप, विशेषताएँ, मानक, उपमानक, अमानक भाषा ख. सामाजिक गतिशीलता – प्राचीन काल, मध्यकाल, आधुनिक काल	
January 2023			

February 2023			

Department of Hindi
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com   Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.A., B.Sc,B.Com – II YEAR   YEAR 2022-23
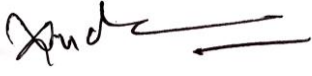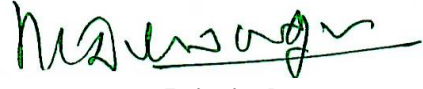
Name of the teacher   :   **MR. JAYPRAKASH VERMA**

Department   :   **HINDI**

Subject/Paper   :   (PAPER:I)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		निम्नलिखित 5 लेखकों के पाठ शामिल होंगे – 1. महात्मा गांधी – चोरी और प्रायश्चित 2. आचार्य नरेंद्र देव – युवकों का समाज में स्थान 3.वासुदेव शरण अग्रवाल – मातृभूमि 4. हरि ठाकुर – डॉ. खूबचंद बघेल 5. पं. माधवराव सप्रे – सम्भाषण–कुशलता	
September 2022		हिन्दी भाषा और उसके विविध रूप 1. कार्यालयीन भाषा 2. मीडिया की भाषा 3. वित्त एवं वाणिज्य की भाषा 4. मशीनी भाषा	
October 2022		हिन्दी की व्याकरणिक कोटियॉ संज्ञा, सर्वनाम, विशेषण, क्रिया विशेषण, समास, संधि एवं संक्षिप्तियां अनुवाद व्यवहार : अंग्रेजी से हिन्दी में अनुवाद	
November 2022		इकाई– 1 चोरी और प्रायश्चित : महात्मा गांधी ⁄ कार्यालयीन भाषा, मीडिया की भाषा	
		इकाई–2 युवकों का समाज में स्थान : आचार्य नरेन्द्र देव ⁄ वित एवं वाणिज्य की भाषा, मशीनी भाषा	
December 2022		इकाई– 3 मात ृभूमिः वासुद `वशरण अग्रवाल ⁄ संज्ञा सर्वनाम, विशेषण, क्रिया विशेषण	
January 2023		इकाई– 4 डॉ. खूबचंद बघेल : हरि ठाकुर ⁄ समास, संधि	

February 2023		, इकाई– 5 सम्भाषण–कुशलता : पं. माधवराव सप्रे, / अनुवाद – अंग्रेजी से हिन्दी में अनुवाद, संक्षिप्तिया	

Department of Hindi
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com   Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

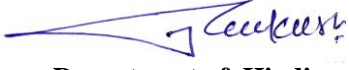B.A.,B.Sc,B.Com – III YEAR   YEAR 2022-23

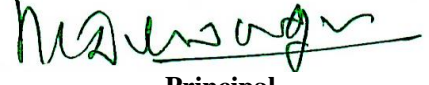Name of the teacher   **: DR. K.D. DESHLAHARA**

Department   **: HINDI**

Subject/Paper   **:** (PAPER:I)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		इकाई-एक (क) भारत माता : सुमित्रानंदन पंत (ख) कथन की शैलियाँ 1. विवरणात्मक शैली 2. मूल्यांकन शैली 3. व्याख्यात्मक शैली 4. विचारात्मक शैली	
September 2022		इकाई-दो (क) सूखी डाली: उपेन्द्रनाथ अश्क (ख) विभिन्न संरचनाएँ 1. विनम्रता सूचक संरचना 2. विधि सूचक संरचना 3. निषेध परक संरचना 4. काल-बोधक संरचना 5. स्थान-बोधक संरचना 6. दिशा बोधक संरचना 7. कार्य-कारण सम्बन्ध संरचना 8. अनुक्रम संरचना	
October 2022		इकाई-तीन (क) वसीयत मालती जोशी (ख) कार्यालयीन पत्र और आलेख	

		1. अरिपत्र 2. आदेश 3. अधिसूचना 4. ज्ञापन 5. अनुस्मारक 6. पृष्ठाकन	
November 2022		इकाई-चार (क) योग की शक्ति हरिवंश राय बच्चन (ख) अनुवाद: स्वरूप एवं परिभाषा, उद्देश्य स्रोत भाषा और लक्ष्य भाषा, अच्छे अनुवाद की विशेषताएँ, अनुवाद प्रकिया, अनुयादक	
December 2022		इकाई–पांच (क) संस्कृति और राष्ट्रीय एकीकरण : योगेश अटल (ख) घटनाओं, समारोहो ं आदि का प्रतिवेदन, विभिन्न प्रकार के निमंत्रण पत्र	
January 2023			
February 2023			

Department of Hindi
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon (C.G.)

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com   Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.A., B.Sc., B.COM – I YEAR   YEAR 2022-23

Name of the teacher   **: MR. DEVSHARAN**
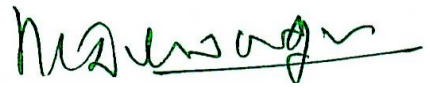
Department   **: ENGISH**

Subject/Paper   **:(PAPER II)**

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		Basic Language skills : Grammar and Usage. Grammar and Vocabulary based on the prescribed text. To be assessed by objective / multiple choice test	
September 2022		Comprehension of an unseen passage. 05 This should simply not only (a) an understanding of the passage in question, but also (b) a grasp of general language skills and issues with reference to words and usage within the passage and (c) the Power of short independent composition based on themes and issues raised in the passage. To be assessed by both objective multiple choice and short answer type tests.	
October 2022		Composition : Paragraph writing	
November 2022		Letter writing (The formal and one Informal) Two letters to be attempted of 5 marks each. One formal and one informal.	
December 2022		Short prose pieces (Fiction and not fiction) short poems, the pieces should cover a range of authors, subjects and contexts. With poetry if may sometimes be advisable to include pieces from earlier periods, which are often simpler than modern examples. In all cases, the language should be accessible (with a minimum of explanation and reference to standard dictionaries) to the general body of students schooled in the medium of an Indian language.	

January 2023			
February 2023			

Department of ENGISH
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon

Principal
Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com   Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.A., B.Sc, B.Com. – II YEAR   YEAR 2022-23

Name of the teacher   **: MR. BHARTENDU PRASHAD VERMA**

Department   **: ENGLISH**

Subject/Paper   **:**(PAPER: II)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		Short answer questions to be passed by (Five short answer questions of three marks each)	
September 2022		Reading comprehension of an unseen passage Vocabulary	
October 2022		Report-Writing	
November 2022		Expansion of an idea	
December 2022		Grammar and Vocabulary based on the prescribed text book.	
January 2023			
February 2023			

Department of English   **Principal**

Govt.Rani Avanti Bai Lodhi College,   **Govt.Rani Avanti Bai Lodhi College,**

Ghumka, Distt. – Rajnandgaon   **Ghumka, Distt. – Rajnandgaon**

GOVT. RANI AVANTI BAI LODHI COLLEGE, GHUMKA, DISTT.-RAJNANDGAON (C.G.)

web site- www.rablcollege.comEmail :govt.collegeghumka@gmail.com Phone – 07744-296940 college code-1904

LECTURE/TEACHING PLAN

B.A B.Sc., B.Com – III YEAR   YEAR 2022-23

Name of the teacher   **: MR. BHARTENDU PRASHAD VERMA**

Department   **: ENGLISH**

Subject/Paper   **:**   (PAPER: II)

Month/Year	Teaching day Available	Topic/Subject to the taught	Lectures Required
August 2022		UNIT-I Essay type answer in about 200 words. 5 essay type question to be asked three to be attempted.	
September 2022		UNIT-II Essay writing	
October 2022		UNIT-III Precise writing	
November 2022		UNIT-IV (a) Reading comprehension of an unseen passage b) Vocabulary based on text	
December 2022		UNIT-V Grammar Advanced Exercises	
January 2023			
February 2023			

Department of English   **Principal**
Govt.Rani Avanti Bai Lodhi College,   Govt.Rani Avanti Bai Lodhi College,
Ghumka, Distt. – Rajnandgaon   Ghumka, Distt. – Rajnandgaon

Proposed Syllabus	Date	Class	Work Done	Administrative / Academic/ Research / Other work	Remark
1	2	3	4	5	6
		B.Sc-II			
Unit-1 (Inorganic chemistry)			Transition Element		
1. Chemistry of Transition Metal Series Element.	7.9.2021		Position in Periodic table, electronic configuration		
	8.9.2021		chemical characteristics, viz, atomic and ionic radii, variable oxidation state		
	10.9.2021		ability to form complexes, formation of coloured ion		
	11.9.2021		magnetic moment μ so (spin only) and μeff and catalytic behaviour		
	13.9.2021		General comparative treatment of 4d and 5d elements with their 3d analogues with respect to ionic radii.		
	14.9.21		oxidation states and magnetic properties.		
	15.9.2021		Revision.		
2. Unit-1 (Organic chemistry).			Alkyl halides:- method of preparation.		
	16.9.2021				
Chemistry of Organic Halides					
	17.9.2021		Nucleophilic Substitution reaction SN1, SN2, Si mechanism with stereo chemical aspect and effect		
Alkyl halides.					
	18.9.2021				

विद्यार्थियों की दैनिक उपस्थिति पंजी — R.J.N.

Daily Attendance Register of the Students

विद्यालय School: Govt. R.A.B.L.C Chumkha कक्षा Class: B.Sc. I (Bio) वि.खं.Block: R.J.N.

तहसील Tehsil: R.J.N. जिला District: R.J.N. माह Month: September / October सत्र Session: 2021

S.No.	Name of Student	Name of Father	Attendance
1	BHAVANA KOSALE	GAUTAM KOSALE	P P P P A P P A P P P P P A P P P P A
2	KALPANA	GAJANAND	P P P A P P P P P A P P A P P P P P A
3	LALITA SAHU	RAVI KUMAR	A P P P P P A P P P P P P P A P P P P
4	GYANVI	CHATUR LAL	A P P P P P P P P A P P P P P P A P P
5	HARISH KUMAR	VIKARMA	P P P P A P P P P A P A P P A P P P P
6	SONIYA	BALKARAN	P A P P P P P A P P P P P A P P P P P
7	NEHA KHOBRAGADE	SANJAY	P P A P P P P P A A P P P P A P A P P
8	PRAMOD KUMAR	GANESH RAM	P P P P P A P P P P A P P P P A P P A
9	SHWETA	DHARAM DAS	P A A P P A P A P P P P P A P P P P P
10	MONA YADU	NARESH YADV	P P A A P P P P P A P A P P P P P P A
11	RUCHI	GAJENDRA	A P P A A P A P P P A P P P P P P A P
12	DIKESHWARI	DEVEE LAL	P P P P P P P P A A P P P P A P P P
13	SHEETAL	CHANDRA SHEKHAR	P P P P P P P A P P P P P P P P P A P
14	DALEE	CHHABI LAL	P P P P A P P P P P P P A P P P P P P
15	JHARNA	SUKALU RAM	P P P P P P A P P P A P P A A P P P P
16	DAMIN	SIVEDRAM	P P P P P A P A P P P A A P P P P A P
17	DEVANSHI	KHILENDRA	P P P P P P A P P P A P P A P P P A P
18	MONIKA	BULAKI	A P P P A P P P A P P P A P P P A P P
19	DEVIKA	KHILESHWAR	A P P P A P P A P P P A P P P P P P A
20	RADHIKA	LIKHAN RAM	P P P P P P P A P P A P P P P P P P P
21	BHAGYASHRI	KHELAN SINGH	P P A P P P A P P P P P A P P P P P A
22	SHUBHRANJALI	KEJRAM	P P P P P A P P P A P P A P P A P P P
23	SUBHASH KUMAR	MADAN LAL	P A P P A P P P A P A P A P P P P P P
24	SHITAL	RAJKUMAR	A P P A P P P A P P P P P P A P A P

सूचना — माह के अंतिम दिन यह विवरण तैयार किया जावे / Notice – Details should be made on last day of the month

सूचना — हाजिरी का चिन्ह / Notice – Sign of attendance

(1) गत माह के अंत में बालकों की संख्या / No. of students in the last month.
(2) वर्तमान माह में भर्ती हुए बालकों की संख्या / No. of new students in this month
(5) औसत हाजिरी / Average attendance

प्रातःकाल आने वाला Present in first half (I)
संध्या काल आने वाला (-)

जाति Caste	बालक boy	बालिका Girl	योग Total
अ.जा. S.C.			
अ.ज.जा. S.T.			

अध्यापक / अध्यापिका TEACHER