Programme Outcome-2020-2021
(Arts Stream-CBCS)
L.T.K. College, Azad, North Lakhimpur

Contents:

SUBJECT:

L.T.K. COLLEGE

b. Honours(CBCS)
c. DSC (CBCS)

অসমীয়া

Ability enhancement courses(CBCS)			
SL. NO.	**SEMESTER**	**PAPER/COURSE**	**EXPECTED LEARNERS' OUTCOME**
1	**স্নাতক প্রথম ষান্মাসিক**	AECC-I: **যোগাযোগমূলক অসমীয়া**	এই পাঠ্যক্রমৰ অন্তত ছাত্ৰ-ছাত্ৰীসকলে ব্যক্তিগত আৰু সামূহিক বার্তালাপ, কথোপকথন ইত্যাদিৰ বিষয়ে জানিবলৈ সক্ষম হব।
Honours Courses(CBCS)			
1	**স্নাতক প্রথম ষান্মাসিক**	**পাঠ্যক্রমৰ সংখ্যা**: Core-I: **অসমীয়া সাহিত্যৰ বুৰঞ্জী (আৰম্ভণিৰ পৰা শংকৰোত্তৰ যুগলৈ)**	এই পাঠ্যক্রমৰ অন্তত ছাত্ৰ-ছাত্ৰীসকলে আৰম্ভণিৰ পৰা শংকৰোত্তৰ যুগলৈ অসমীয়া সাহিত্যৰ বিকাশৰ ইতিবৃত্ত সম্পর্কে জানিবলৈ সক্ষম হব।
		পাঠ্যক্রমৰ সংখ্যা: Core- II:**অসমীয়া সাহিত্যৰ বুৰঞ্জী অৰুণোদই যুগৰ পৰা যুদ্ধোত্তৰ যুগলৈ**	এই পাঠ্যক্রমৰ অন্তত ছাত্ৰ-ছাত্ৰীসকলে অৰুণোদই যুগৰ পৰা যুদ্ধোত্তৰ যুগলৈ অসমীয়া ভাষাৰ বিকাষ, বৃষ্টিতি সম্পর্কে জানিবলৈ সক্ষম হব।
2	**স্নাতক দ্বিতীয় ষান্মাসিক**	**পাঠ্যক্রমৰ সংখ্যা**: Core-3: **ভাষাবিজ্ঞানৰ পৰিচয়**	এই পাঠ্যক্রমৰ অন্তত ছাত্ৰ-ছাত্ৰীসকলে প্রাচ্য আৰু পাশ্চাত্যৰ ভাষা সম্পর্কীয় চিন্তা-চর্চাৰ ইতিহাস জনাৰ লগতে ভাষা আৰু ভাষাবিজ্ঞান সম্পর্কীয় বিভিন্ন দিশসমূহৰ পৰিচয় পাবলৈ সক্ষম হব।
		পাঠ্যক্রমৰ সংখ্যা: Core-**4**: **সাহিত্যতত্ত্ব**	এই পাঠ্যক্রমৰ অন্তত ছাত্ৰ-ছাত্ৰীসকলে অসমীয়া সাহিত্য অধ্যয়নৰ তাত্ত্বিক আধাৰৰূপে ভাৰতীয় তথা পাশ্চাত্য সাহিত্যতত্ত্বৰ জ্ঞান পাবলৈ সক্ষম হোৱাৰ লগতে এই দুয়ো পৰম্পৰাৰ সাহিত্যতত্ত্বৰ প্রাথমিক জ্ঞান পাবলৈ সক্ষম হব।
3	**স্নাতক তৃতীয় ষান্মাসিক**	**পাঠ্যক্রমৰ সংখ্যা**: Core-**5**: **সাহিত্য সমালোচনা**	এই পাঠ্যক্রমৰ অন্তত ছাত্ৰ-ছাত্ৰীসকলে বিভিন্ন প্রকাৰৰ সাহিত্য সমালোচনাৰ পৰিচয় আৰু পদ্ধতি তথা বিভিন্ন প্রকাৰৰ সাহিত্যৰ স্বৰূপ সম্পর্কীয় ধাৰণা পাবলৈ সক্ষম হব।
		পাঠ্যক্রমৰ সংখ্যা: Core-**6**: **অসমীয়া কবিতাৰ চানেকি**	এই পাঠ্যক্রমৰ অন্তত ছাত্ৰ-ছাত্ৰীসকলে অসমীয়া কবিতাৰ ইতিহাস তথা গতি-প্রকৃতি সম্পর্কে অৱগত হোৱাৰ লগতে লোক কবিতাৰে আৰম্ভ কৰি চর্যাপদ-প্রাক্‌শংকৰী-শংকৰী-শংকৰোত্তৰ যুগ আৰু বর্তমান অসমীয়া কবিতাৰ পৰা উল্লেখযোগ্য চানেকিৰ বিষয়ে ধাৰণা পাবলৈ সক্ষম হব। লগতে আৰম্ভণিৰ পৰা বর্তমান কাললৈ অসমীয়া কবিতা সম্পর্কে জ্ঞান পাবলৈ সক্ষম হব।
		পাঠ্যক্রমৰ সংখ্যা: Core-**7**: **অসমৰ সংস্কৃতি অধ্যয়ন**	এই পাঠ্যক্রমৰ অন্তত ছাত্ৰ-ছাত্ৰীসকলে সংস্কৃতিৰ সাধাৰণ ধাৰণাসহ অসমৰ নৃ-গোষ্ঠী আৰু সংস্কৃতি সম্পর্কে জ্ঞান পাবলৈ সক্ষম হব।
4	**স্নাতক চতুর্থ ষান্মাসিক**	**পাঠ্যক্রমৰ সংখ্যা**: Core-**8**: **তুলনামূলক সাহিত্যৰ পদ্ধতি আৰু প্রয়োগ**	এই পাঠ্যক্রমৰ অন্তত ছাত্ৰ-ছাত্ৰীসকলে সাহিত্য অধ্যয়নৰ জগতত উদীয়মান বিষয় তুলনামূলক সাহিত্যৰ সাধাৰণ ধাৰণা লাভ কৰাৰ লগতে ভাৰতীয় সাহিত্য তথা অসমীয়া সাহিত্যৰ প্রেক্ষাপটত তুলনামূলক সাহিত্য অধ্যয়নৰ প্রাসংগিকতা আৰু প্রণালীৰ আভাস পাবলৈ সক্ষম হব।
		পাঠ্যক্রমৰ সংখ্যা: Core-9: **ভাৰতীয় আর্যভাষা আৰু অসমীয়া ভাষা**	এই পাঠ্যক্রমৰ অন্তত ছাত্ৰ-ছাত্ৰীসকলে ভাৰতীয় আর্যভাষাৰ ক্রমবিকাশৰ ৰূপৰেখা আৰু সংস্কৃত, পালি আৰু প্রাকৃত ব্যাকৰণৰ বৈশিষ্ট্যসমূহৰ পৰিচয় পাবলৈ সক্ষম হব।
		পাঠ্যক্রমৰ সংখ্যা:	এই পাঠ্যক্রমৰ অন্তত ছাত্ৰ-ছাত্ৰীসকলে অসমীয়া গদ্য

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		Core-**10**: **অসমীয়া গদ্যৰ চানেকি (ক)**	সাহিত্যৰ উদ্ভৱ তথা বিকাশধাৰা সম্পৰ্কে জ্ঞান লাভ কৰিব।
5	**স্নাতক পঞ্চম ষান্মাসিক**	**পাঠ্যক্রমৰ সংখ্যা**: Core-**11**: **অসমীয়া নাটক**	এই পাঠ্যক্রমৰ অন্তত ছাত্র-ছাত্রীসকলে প্রাচীন কালৰে পৰা পাশ্চাত্য লক্ষণসম্বলিত আধুনিক নাটকলৈকে অসমীয়া নাটকৰ চমু ইতিহাস জানিবলৈ সক্ষম হোৱাৰ লগতে অসমীয়া নাটকৰ অধ্যয়নেৰে অসমীয়া নাট্য সাহিত্যৰ গতি-বিধি সম্পৰ্কে জানিবলৈ সক্ষম হব।
		পাঠ্যক্রমৰ সংখ্যা: Core-**12**: **অসমীয়া ভাষাৰ ভাষাবৈজ্ঞানিক অধ্যয়ন**	এই পাঠ্যক্রমৰ অন্তত ছাত্র-ছাত্রীসকলে অসমীয়া ভাষাৰ ধ্বনিতত্ত্ব, ৰূপতত্ত্ব, বাক্যতত্ত্বৰ সম্পৰ্কে পৰিচয় পাবলৈ সক্ষম হব।
		পাঠ্যক্রমৰ সংখ্যা: DSE-1: **অসমীয়া ব্যাকৰণ, অভিধান আৰু জতুৰা প্রয়োগ**	এই পাঠ্যক্রমৰ অন্তত ছাত্র-ছাত্রীসকলে অসমীয়া ভাষাৰ শুদ্ধ উচ্চাৰণ, শুদ্ধ আখৰ জোঁটনি, অসমীয়া জতুৰা ঠাঁচ আৰু খণ্ডবাক্যৰ প্রয়োগৰ লগতে উপযুক্ত পৰিভাষাৰ প্রয়োগ, অসমীয়া ব্যাকৰণৰ বিবিধ দিশ আৰু অসমীয়া অভিধানৰ সাধাৰণ পৰিচয় পাবলৈ সক্ষম হব।
		পাঠ্যক্রমৰ সংখ্যা: DSE-2: **ভাৰতীয় সাহিত্যৰ পৰিচয়**	এই পাঠ্যক্রমৰ অন্তত ছাত্র-ছাত্রীসকলে বহু ভাষাৰে প্রকাশ লাভ কৰা ভাৰতীয় সাহিত্যৰ একক ৰূপত পৰিচয় প্রদানৰ লগতে নির্বাচিত ৰচনাৰ আভাস লাভ কৰিবৈলে সক্ষম হব।
6	**স্নাতক ষষ্ঠ ষান্মাসিক**	**পাঠ্যক্রমৰ সংখ্যা**: Core-**13**: **অসমীয়া গদ্যৰ চানেকি (খ)**	এই পাঠ্যক্রমৰ অন্তত ছাত্র-ছাত্রীসকলে অসমীয়া গদ্যৰ নির্বাচিত অংশৰ অধ্যয়নৰ যোগেদি আধুনিক কালৰ সৃষ্টিশীল গদ্য সাহিত্যৰ বৈবিধ্য-বৈচিত্র্য তথা গতি-প্রকৃতি সম্পৰ্কে জানিবলৈ সক্ষম হব।
		পাঠ্যক্রমৰ সংখ্যা: Core-**14**: **অসমৰ ভাষা আৰু লিপি**	এই পাঠ্যক্রমৰ অন্তত ছাত্র-ছাত্রীসকলে অসমৰ ভাষাৰ ভাষাতাত্ত্বিক বৈশিষ্ট্য, অসমীয়া ভাষা আৰু আর্যভিন্ন ভাষাৰ আদান-প্রদানৰ বিষয়ে জ্ঞান লাভ কৰিবলৈ সক্ষম হব।
		পাঠ্যক্রমৰ সংখ্যা: DSE-3: **বিশ্ব সাহিত্যৰ পৰিচয়**	এই পাঠ্যক্রমৰ অন্তত ছাত্র-ছাত্রীসকলে বিশ্ব সাহিত্য পদটো অথবা ধাৰণাৰ সৃষ্টি আৰু বিস্তৃতিৰ লগতে বিশ্ব প্রেক্ষাপটত গুৰুত্ব আৰু খ্যাতি লাভ কৰা নির্বাচিত সাহিত্যৰ অধ্যয়ন কৰিবলৈ সক্ষম হব।
		পাঠ্যক্রমৰ সংখ্যা: DSE-4: **বিশেষ লেখক**	এই পাঠ্যক্রমৰ অন্তত ছাত্র-ছাত্রীসকলে কোনো এজন বিশিষ্ট অসমীয়া লেখকৰ জীৱন আৰু সাহিত্য-কৃতিৰ বিষয়ে জ্ঞান লাভ কৰিবলৈ সক্ষম হব।

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Ability Enhancement Compulsory Course-I(CBCS)			
SL. NO.	**SEMESTER**	**PAPER/COURSE**	**EXPECTED LEARNERS' OUTCOME**
1	BA 1st Sem	Course Code: 10310 AECC-I: English Communication	It is hoped that after studying this course, the students will find a difference in their personal and professional interactions. The recommended readings give at the end are only suggestive; the students and teachers have the freedom to consult other materials on various units/topics mentioned in the syllabus. Similarly, the questions in the

			examination will be aimed towards assessing the skills learnt by the students rather than the textual content of the recommended books.
		Course Code:10320 AECC-II: English Communication	This course will introduce students to the prose pieces and short stories.
Honours Courses (CBCS)			
1	B.A 1st Sem	Course Code: 10100 Core-I: Indian Classical Literature	After completing this course, the learners willbe in a position to understand and appreciate the rich Indian classical literary tradition including its distinctive aesthetic philosophies. It would provide them with the conceptual resources to make a comparative assessment between the Indian and the Western classical tradition, thereby enabling their knowledge and understanding of the great ancient literary traditions.
		Course Code: 10200 Core-II: European Classical Literature	After completion of this course, the learners will be in a position to understand the source of Western literary paradigm- a formation that was responsible for constituting the great tradition of the western canon, and one which govern our critical or comparative touchstone on 'What good literature ought to be.'
2	B.A 2nd Sem	Course Code: 20100 Core-III: Indian Writing in English	It is believed that learners, after the culmination of this course, the students shall be in a better position to appreciate the diversity of customs and traditions in India, would be able to map the intellectual trajectory from the pre- to post - independence period, and get the feel of the advancement that Indian writers in English are making, for which they are receiving plaudits, both at home as well as abroad.
		Course Code: 20200 Core-IV: British Poetry and Drama: 14th to 17thCenturies	After completing this course, the learners would be in a position to determine the influence of the European Renaissance on the works of the Elizabethan authors, including Shakespeare.
3	B.A 3rd Sem	Course Code: 30100 Core-V: American Literature	It is hoped that learners would get a feel of American literature and they will be able to understand the poetics and politics of a literature characterized both by liberal and reactionary ideals.
		Course Code: 30200 Core-VI: Popular Literature	After the completion of this course, it is believed that learners would be in a position to appreciate the presence of a creative space and process that has the potential to affect readers to a degree that high-brow literature cannot achieve due to its propensity to target only a niche audience.
		Course Code: 30300 Core-VII: British Poetry and Drama: 17th to 18thCenturies	After the completion of this course, learners will be in a position to understand the ways in which English drama and poetry began to emphasize on the importance of adhering to classical norms and forms.
4	B.A 4th Sem	Course Code: 40100 Core-VIII: British	After the completion of this course, learners will be in a position to understand the spirit of the age,

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		Literature 18th Centuries	as well as the literature embodying this spirit.
		Course Code: 40200 Core-IX: British Romantic Literature	It is hoped that the learners would be in a position to know and appreciate the values of a literature characterized by emotion, passion, love towards nature, exerting of imagination and so forth in order to create a thing of beauty, which would be a joy forever.
		Course Code: 40300 Core-X: British Literature 19th Centuries	At the end of this course the learners will be in a position to understand the philosophical shift that came about due to the crises of faith pertaining to the culture of positivism that manifested its full presence during the Victorian period. It is also hoped that they would be able to understand concepts like utilitarianism, surplus value, Victorian prudishness, survival of the fittest etc., and will be able to analyze it along these lines (in the texts prescribed).
5	B.A 5th Sem	Course Code: 50100 Core-XI: Women's Writing	It is hoped that the learners after completing this course, would be sensitized to gender-related issues, and would be able to see things from the perspective of the Other.
		Course Code: 50200 Core-XII: British Literature: Early 20th centuries	It is believed that the learners would benefit from this course in terms of getting acquainted with concepts like stream-of-consciousness, Oedipus complex, *Avant Garde*, gyre, interior monologue, among many others.
		Course Code: 50120 DSE-II: Literature of Indian Diaspora	After completing this course, it is expected that learners will be in a position to understand the complexity of living as hyphenated identities in a space which is different from that of „home". They will be in a better position to understand the postcolonial condition of identities caught between the quest for a better life abroad and the acknowledgement of the futility surrounding such a rootless mobility.
		Course Code: 50130 DSE-III: Literary Criticism (DSC)	Criticism enables one to understand, appreciate and critique literary texts by inculcating the values of what good or bad literature tends to be. It is hoped that learners will be in a position to understand the texts in terms of the contexts, which could be purely aesthetic, historical, textual or political. They will be able to read texts by adopting the ideologies of the different reading processes.
6	B.A 6th Sem	Course Code: 60100 Core-XIII: Modern European Drama	It is hoped that the learners after completing this course will be in a comfortable space to know Modern drama with its entire attendant problematic.
		Course Code: 60200 Core-XIV: Post-Colonial Literature	The learners on culmination of the course are expected to be acquainted with both the texts and the contexts of the given period.

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		Course Code: 60110 DSE-V: Literary Theory	By the end of this course, the learners shall be in a position to know some of the significant texts of discourses revolving around class, gender, power, language, race, identity and so forth. They will be able to relate their reading of literature through such theories, which would in turn facilitate their interpretive strategies.
		Course Code: 50130 DSE-VII: Partition Literature	After the culmination of this course, the learners will be in a position to comprehend the magnitude of the tragedy of partition and realize how the trauma associated with it impinges on the victim's daily lives and activities even in the present. The historical fact transmuted by imagination tends to prove the validity of literature in representing the truth of the human condition. This is what the course will attempt to highlight.

ECONOMICS

Generic Elective (GE)			
SL. NO.	**SEMESTER**	**PAPER/COURSE**	**EXPECTED LEARNERS' OUTCOME**
1	BA 1st Sem	Course Code: ENCGE-1: Introductory Microeconomics	It is hoped that after studying this course, the students will understand the basic principles of microeconomic theory. They will also understand how microeconomic concepts can be applied to analyse real-life situations.
		Course Code: ENCGE-2: Introductory Macroeconomics	It is hoped that after studying this course, the students will understand the basic concepts of macroeconomic theory. They will also understand how the preliminary concepts associated with the determination and measurement of aggregate macroeconomic variables like savings, investments, GDP, money, inflation and the balance of payment.
		Course Code: ENCGE-3.1: Indian Economy-I	At the end of this course the students will understand the major trends in economic indicators in India in the Post-Independence period with particular emphasis on paradigm shifts and turning points.
		Course Code: ENCGE-4.1: Indian Economy-II	At the end of this course the students will understand the sector-specific polices and their impact in shaping trends in key economic indicators in India.
Honours Courses(CBCS)			
1	B.A 1st Sem	Course Code: ECNHC 101: Introductory Microeconomics	After completing this course, the learners will be in a position to understand and appreciate the basic principles of microeconomics theory. They would be illustrated with the microeconomics concepts which can be applied to analyse real-life situation.
		Course Code:	At the end of the course the learners will

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		ECNHC 102: Mathematical Methods for Economics-I	understand the basic mathematics that enables the study of economics theory at the UG level especially on microeconomics theory, macroeconomics theory, statistics and econometrics set. Students would learn the methods of applying mathematical techniques to economic theory in general.
2	B.A 2nd Sem	Course Code: ECNHC201: Introductory Macroeconomics	It is believed that learners, after the culmination of this course, will be in a better position to understand the basic concepts of Macroeconomics like savings, investments, GDP, money, inflation and the balance of payments.
		Course Code: ECNHC 202: Mathematical Methods for Economics-II	After completing this course, the learners will understand the basic mathematics that enables the study of economics theory at the UG level especially on microeconomics theory, macroeconomics theory, statistics and econometrics set. Students would learn the methods of applying mathematical techniques to economic theory in general.
3	B.A 3rd Sem	Course Code: ECNHC 301: Essentials of Microeconomics	It is hoped that at the completion of the course the learners would understand the behaviour of individual agents such as of the consumer, the producer and the competitive firm.
		Course Code: ECNHC302: Essentials of Macroeconomics	After the completion of this course, it is believed that learners would understand the formal modelling of a macro-economy in terms of analytical tools. They will also understand the various alternative theories of output and employment determination in a closed economy in the short run as well as medium run, and the role of policy in this context. It would also introduce them to various theoretical issues related to an open economy.
		Course Code: ECNHC 303: Statistical Methods for Economics	After the completion of this course, learners will understand the basic concepts and terminology that are fundamental to statistical analysis and inference. They will also understand the notion of probability, followed by probability distributions of discrete and continuous random variables and of joint distributions. Besides, they will also understand sampling techniques used to collect data.
4	B.A 4th Sem	Course Code: ECNHC401: Advanced Microeconomics	After the completion of this course, learners will be in a position to understand the use of mathematical tools and reasoning including equilibrium and welfare, imperfect markets and topics under information economics.
		Course Code: ECNHC402: Advanced Macroeconomics	It is hoped that the learners would be in a position to understand the long run dynamic issues like growth and technical progress. They will also understand the micro-foundations to the various aggregative concepts used in the previous course.
		Course Code:	The learners will be in a position to understand the

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		ECNHC403: Introductory Econometrics	basic econometric concepts and techniques along with statistical concepts of hypothesis testing, estimation and diagnostic checking of simple and multiple regression models. They will also understand the consequences of and tests for misspecification of regression models.
5	B.A 5th Sem	Course Code: ECNHC501: Indian Economy-I	It is hoped that the learners after completing this course, would be sensitized to the major trends in economic indicators in India in the post-Independence period with particular emphasis on paradigm shifts and turning points.
		Course Code: ECNHC502: Development Economics-I	It is believed that the learners would understand the alternative conceptions of development and their justification in parallel to aggregate models of growth and cross-national comparisons of the growth experience that can help evaluate these models. They would also understand the linking political institutions to growth and inequality by discussing the role of the state in economic development and the informational and incentive problems that affect state government.
		Course Code: ECNHDSE505: Money and Financial Market	After completing this course, it is expected that learners will be in a position to understand theory and functioning of the monetary and financial sectors of the economy. They will also understand the organisation, structure and role of financial markets and institutions along with interest rates, monetary management and instruments of monetary control. Besides, they will understand financial and banking sector reforms and monetary policy with special reference to India.
		Course Code: ECNHDSE506: Public Economics	At the end of this course the student will understand the government policy from the point of view of economic efficiency and equity. They will understand the nature of government intervention and its implications for allocation, distribution and stabilization along with government taxation and expenditure. Besides, they will understand topics such as public goods, market failures and externalities.
6	B.A 6th Sem	Course Code: ECNHC601: Indian Economy-II	It is hoped that the learners after completing this course will be in a comfortable space to understand the sector-specific polices and their impact in shaping trends in key economic indicators in India.
		Course Code: ECNHC602: Development Economic-II	The learners on culmination of the course are expected to be acquainted with basic demographic concepts and their evolution during the process of development. They will also understand the structure of markets and contracts is linked to the particular problems of enforcement experienced in poor countries. They will also understand the governance of communities and organizations in connection of it to the sustainable growth.

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			Besides, they will also understand the role of globalization and increased international dependence on the process of development.
		Course Code: ECNHDSE602: Environmental Economics	By the end of this course, the learners will be in a position to understand economic causes of environmental problems. They will understand how economic principles are applied to environmental questions and their management through various economic institutions, economic incentives and other instruments and policies. They will also understand the economic implications of environmental policy as well as valuation of environmental quality, quantification of environmental damages, tools for evaluation of environmental projects such as cost-benefit analysis and environmental impact assessments.
		Course Code: ECNHDSE 604: The Economy of North East India	After the culmination of this course, the learners will be in a position to understand the characteristics as well as with the current issues of the economy of North-East India. They will also understand the performance and problems of the primary, secondary and tertiary sectors of North-East India.

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EDUCATION

Generic Elective (GE)			
SL. NO.	**SEMESTER**	**PAPER/COURSE**	**EXPECTED LEARNERS' OUTCOME**
1	BA 1st Sem	Any One Course Code: GEED101: Guidance and Counselling	After completing this course, it is expected that learners will be in a position to understand the meaning, nature, purpose and scope of guidance and counselling along with the characteristics and functions of guidance and counselling. They would also understand the basic principles of guidance and counselling and the types and areas of guidance and counselling. They would be able to use the various tools and techniques of guidance in appropriate context. Besides, they would also understand the qualities and role of a counsellor.
		Course Code: GEED202: Gender Education	After the culmination of this course, the learners will be in a position to comprehend the meaning and nature of gender and its related terms. They would also understand the gender biases and gender inequality in family, school and society. Besides they would also learn the gender issues related to school education and would able to analyse the laws and policies related to gender equality.

		Course Code: GEED302: Mental Health Issues	At the end of this course the learners will understand the need and importance of the concepts of mental health and hygiene in the emerging society and psychological and maladjustment problems. They would also understand the role of different agencies of society and their impacts on the development of an individual's personality. Besides, they would also understand the various components of positive psychology and its significance in the teaching learning process and would also learn to integrate yoga in their day-to-day lives for holistic health.
4	BA 4th Sem	Course Code: GEED401: Economics of Education	By the end of this course, the learners will be in a position to explain the meaning, scope and importance of economics of education. They would also able to define the concepts used in economics of education and would also be able to examine the historical development of economics of education. They would understand education as a good, demand and supply of education, utility of education etc. Besides, they would understand the concept of investment in education, return on investment in education, education as production process etc. they would learn the concepts of different types of educational cost and the concepts of human capital formation, education financing, educational planning etc.
Honours Course (CBCS)			
1	B.A 1st Sem	Course Code: EDNH 101: Philosophical Foundation of Education	After completing this course, the learners will be in a position to understand and appreciate the modern concept, aims, functions and role of education. They will also understand the role of Philosophy in Education. They would be able to explain the basic tenants of the given Indian and Western Philosophies and their influence in Education. Besides, they would be able to appraise the contribution of the given philosophies in the domine of education.
		Course Code: EDNH 102: Philosophical Foundation of Education	It is believed that learners, after the culmination of this course, shall be in a better position to explain the concept, approaches and theories of educational sociology. They would also understand social aspects, social processes and role of education. They would also understand political ideologies and their bearings on education.
2	B.A 2nd Sem	Course Code: EDNH 201: Psychological Foundation of Education	It is believed that learners, after the culmination of this course, shall be in a better position to understand the concept, nature, scope and uses of psychological in education and would be able to explain the influence of growth and development in education. They would learn the meaning, concept, variables, types and theories of learning. Besides, they would also learn the concepts of

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			mental health and mental hygiene, measures of mental health in school.
		Course Code: EDNH 202: Educational Administration and Management	After completing this course, the learners would be in a position to define the concept of educational management. They would also learn the types of management and modern trends of educational management. Besides, they would also learn the concept of educational leadership and the principles of educational leadership.
3	B.A 3rd Sem	Course Code: EDNH 301: Great Educators and Educational Thoughts	It is hoped that after completion of this course learners would understand the contribution of the given philosophers in the domain of education. They would be able to explain the relevance of the educational thought of the given philosophers.
		Course Code: EDNH 302: Measurement and Evaluation in Education	After the completion of this course, it is believed that learners would be in a position to explain the meaning, nature, scope, need and types of measurement and evaluation in education. They would be able to understand the meaning of psychological tests, their characteristics and process of construction. They would also be able to describe some specific tools to measure achievement, intelligence, personality and aptitude. Besides, they would also understand the meaning and nature of different statistical measures and use of statistics in measurement and evaluation in education.
		Course Code: EDNH 303: Experimental Psychology and Laboratory Practical	After the completion of this course, learners will be in a position to explain the concept, scope and need of experimental psychology and they would be able to conduct and report of psychological experiments.
4	B.A 4th Sem	Course Code: EDNH 401: Education in Pre-Independence India	It is hoped that after the completion of the course the learners would be in a position to explain the concept of education in the context of Indian heritage. They would have knowledge on the education in ancient India, particularly Vedic Education and Buddhist Education. They would also have the knowledge of the education system in Medieval India and the education system during the British period with special emphasis on the commission and committees.
		Course Code: EDNH 402: Techniques of Teaching	The course will able the learners explain the meaning and nature of teaching and the principles of teaching and learning. They would also understand the role of teacher at different phases of teaching. They would understand the importance of planning lessons in teaching-learning process, concept of teaching skills and the stages of micro-teaching cycle. Besides, they would understand the objective of teaching different subjects in Elementary and Secondary levels and would able to describe the different methods and approaches of teaching.

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		Course Code: EDNH 4020: Teaching Practice	At the end of this course the learners will be in a position to demonstrate a few teaching skills in classroom. They would be able to integrate the teaching skills in real classroom situations and would also be able to prepare lesson plans for Micro-teaching and Practice teaching.
		Course Code: EDNH 403: Educational Technology	It is hoped that at the end of the course the learners would be in a position to describe the concept, nature and components of Educational Technology. They would be able to distinguish between Educational Technology and Instructional Technology. They would learn to apply ICT in teaching and learning. Besides, they would also be in a position to describe the concept, components and characteristics of communication and would able to demonstrate the skills of effective communication.
5	B.A 5th Sem	Course Code: EDNH 501: Education in Post-Independent India	It is hoped that after the completion of the course the learners would be able to describe the educational scenario at the time of Independence. They would also be able to explain the roles of various Commissions and Committees in the development of education in post independent India. Besides, they would have the knowledge of the recent educational development in India.
		Course Code: EDNH 502: Education in World Perspective	It is believed that at the end of this course the learners would in a position to explain the meaning and definition, nature, scope and purpose of comparative education. They would also be able to describe the factors influencing in national system of education, the methods of comparative education, the organization, administration, objectives and examination system of the countries. Besides, they would also be able describe the vocational and teacher education of different countries, especially UK, USA, India and Japan and also understand the open education in world perspective.
		Course Code: DSEED 501/GEED 101: Guidance and Counselling	After completing this course, it is expected that learners will be in a position to understand the meaning, nature, purpose and scope of guidance and counselling along with the characteristics and functions of guidance and counselling. They would also understand the basic principles of guidance and counselling and the types and areas of guidance and counselling. They would be able to use the various tools and techniques of guidance in appropriate context. Besides, they would also understand the qualities and role of a counsellor.
		Course Code: DSEED 504/GEED 302: Mental Health Issues	At the end of this course the learners will understand the need and importance of the concepts of mental health and hygiene in the emerging society and psychological and

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			maladjustment problems. They would also understand the role of different agencies of society and their impacts on the development of an individual's personality. Besides, they would also understand the various components of positive psychology and its significance in the teaching learning process and would also learn to integrate yoga in their day-to-day lives for holistic health.
6	B.A 6th Sem	Course Code: EDNH 601: Emerging Trends in Indian	By the end of this course, the learners shall be in a position to explain the need of constitutional provisions for education, the role of constitution in equalizing educational opportunities in the diverse Indian society. They would be able to identify the challenges of Indian education at different levels and suggest measures to overcome these. They would also be able to define the new perspectives of education. They would also be able to critically examine and evaluate the initiatives taken by Government of India and also explain the political influences on the national education system. Besides, they would also be able to analyse the role of international agencies in development of education.
		Course Code: EDNH 602: Child and Adolescent Psychology	The learners on culmination of the course are expected to be acquainted with the significance of a study of childhood and adolescence today. They learn the developmental changes of childhood and adolescence, the effect of family dynamics and adolescent development. Besides, they would also learn the significance of the role of society in monitoring and guiding young children in their proper development.
		Course Code: DSEED 602/GEED 401: Economics of Education	By the end of this course, the learners will be in a position to explain the meaning, scope and importance of economics of education. They would also able to define the concepts used in economics of education and would also be able to examine the historical development of economics of education. They would understand education as a good, demand and supply of education, utility of education etc. Besides, they would understand the concept of investment in education, return on investment in education, education as production process etc. they would learn the concepts of different types of educational cost and the concepts of human capital formation, education financing, educational planning etc.

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		Course Code: DSEED 603/GEED 202: Gender and Education	After the culmination of this course, the learners will be in a position to comprehend the meaning and nature of gender and its related terms. They would also understand the gender biases and gender inequality in family, school and society. Besides they would also learn the gender issues related to school education and would able to analyse the laws and policies related to gender equality.

GEOGRAPHY

Generic Elective (GE)			
SL. NO.	**SEMESTER**	**PAPER/COURSE**	**EXPECTED LEARNERS' OUTCOME**
1	BA 1st Sem	GE-I: Disaster Management	It is hoped that after studying this course, the students will learn about the concepts of hazards, disaster, risk and vulnerability. Besides, this paper will prepare the students about the Do's and Don'ts during and post disaster.
Honours Course-I(CBCS)			
1	B.Sc. 1st Sem	**COURSE C1 (Theory) GGRM 101T4: GEOMORPHOLOGY AND BIO GEOGRAPHY**	After completion of this course the students will able to know about the various processes responsible for the development of diverse landforms on the earth surface. The candidate will also learn how the natural surrounding and human activities are responsible for the distribution of plants and animals.
		Course C1 GGRM 101P2: GEOMORPHIC TECHNIQUES (PRACTICAL)	After completion of this course the students will gain practical knowledge about the various morphometric techniques used in drainage analysis. The students will also about the various slope analysis techniques and uses of different types of scale.
		Course C2 GGRM 102T4 CLIMATOLOGY (Theory)	After completion of this course the students will learn about the composition of atmosphere and various climatic processes. The students will also learn about various factors responsible for the climatic disturbances.
		Course C2 GGRM 102P2: PRACTICALS BASED ON CLIMATIC DATA	After completion of this course the students will gain practical knowledge about the various weather symbols and to prepare graphs based on climatic data. The students will also find out the variability in the distribution of rainfall and the factors responsible for such variation in the pattern of rainfall.
2	B.Sc 2nd Sem	**Course C3 GGRM201T6: HUMAN GEOGRAPHY (Theory)**	After the completion of this course students will learn about the major themes of human geography and its importance in present days. The students will also learn about population growth and factors responsible for uneven distribution of population in the world. The student will also gain knowledge about the

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			population resource relationship and various types of settlement pattern.
		Course C4 GGRM 202T4: GEOGRAPHY OF INDIA (Theory)	After completion of this course the students will learn about the various aspects of India. The students will learn about the physical, anthropogenic and economic diversity of India and the factors responsible for such diversities.
		Course C4 GGRM 202P2: PRACTICAL ON THEMATIC CARTOGARPHY	After completion of this course the students will gain knowledge on various application of thematic Mapping and shape index analysis.
3	B.Sc 3rd Sem	**Course C5 GGRM 301T4: CARTOGRAPHY (Theory)**	After completion of this course the students will learn about the history of map projection and uses of different types of map projection. An attempt is also made to enlighten the students about the various surveying methods and the instrument used in it.
		C5 GGRM 302P2: CARTOGRAPHIC TECHNIQUES (PRACTICAL)	After completion of this course the students will gain practical knowledge on different types of map Projection and its uses.
		Course C6 GGRM302T6: REGIONAL GEOGRAPHY OF WORLD (Theory)	After completion of this course the students will learn about climate, soil and topography in different continents of the world. The course also familiarize learner with industrialization and population distribution in developed, developing and underdeveloped nations of the world.
		Course C7 GGRM 303T6: STATISTICAL METHODS IN GEOGRAPHY (Theory)	After completion of this course the students will gain knowledge the various statistical techniques used in geographical study.
4	B.Sc. 4th Sem	**Course :C8 GGRM401T6 : ECONOMIC GEOGRAPHY (Theory)**	After completion of this course the students will able to know about the basic ideas of primary, secondary and tertiary activities and its spatio-temporal pattern. The learners will also acquire the knowledge of some economic development models in relation to agriculture and industry.
		Course C 9 GGRM402T6: ENVIRONMENTAL GEOGRAPHY (Theory)	After completion of this course the students will gain conceptual and theoretical ideas of environment as well as relationship between man and environment in different geo climatic regions. The learners will also attain the nature and intensity of some burning environmental issues at local, regional and global level along with mitigation programs and policies.
		Course C10 GGRM403T4: REMOTE SESING AND GIS (Theory)	After completion of this course the students will learn about the field of latest satellite based technology and data source such as remote sensing
		Course C10	After completion of this course the students

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		GGRM403P2: REMOTE SENSING AND GIS (PRACTICAL)	will gain practical knowledge and skills in diversified applications of remote sensing data and technology.
5	B.Sc. 5th Sem	**Course C11 GGRM 501T4: REGIONAL PLANNING AND DEVELOPMENT (Theory)**	After completion of this course the students will learn about Region, regionalization, Regional planning and development. It will also incorporate models associated with economic growth and development
		Course C11 GGRM 501P2: REGIONAL PLANNING AND DEVELOPMENT (Practical)	After completion of this course the students will gain practical knowledge about Regional Planning and Development.
		Course C12 GGRM502T4: POPULATION GEOGRAPHY (Theory)	After completion of this course the students will learn about the basic ideas of population size, composition, growth and distribution along with its determinants. The course will also incorporate contemporary issues of population..
		Course C12 GGRM 502P2: POPULATION GEOGRAPHY (Practical)	After completion of this course the students will gain practical knowledge about the cartographic ideas for the representation of major Demographic data.
		DSE 2 (6 C) GGRM DSE 502AT6 : URBAN GEOGRAPHY	After completion of this course the students will learn about nature, scope and development of urban geography. The course also deals with pattern of urbanization in different parts of the world along with basic issues of urbanization in some of the major urban agglomerations in India.
		DSE 2 (6 C) GGRM DSE502BT6: AGRICULTURAL GEOGRAPHY	After completion of this course the students will learn about the concept of agricultural activities, its determinants and types under different geo- environmental condition of the world. The course also introduces learners with some Land use and cropping intensity models)
6	B.Sc. 6th Sem	**Course C 13 GGRM601T6: EVOLUTION OF GEOGRAPHICAL THOUGHT (Theory)**	After completion of this course the students will learn about the development of geographic ideas during the era of ancient, pre-modern and modern period. The course will also enlighten the learners with the contemporary issues and approaches of development of the discipline.
		Course C14 GGRM602T6: DISASTER MANAGEMENT BASED PROJECT WORK	After completion of this course the students will learn how to conduct an extensive survey over an area to evaluate the nature, intensity, frequency and impact of a Hazard/ disaster and suggesting possible mitigation measures
		DSE 4 (6 C) GGRM DSE 602AT6: HYDROLOGY AND	After completion of this course the students will learn about the concept and components of hydrological cycle and its intervention by

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		OCEANOGRAPHY	anthropogenic activities. The course also incorporates bottom configuration and ocean dynamics along with physical and chemical properties of ocean sea water.
		GE 1 (6 C) **GGRM GE 101AT6: DISASTER MANAGEMENT**	After completion of this course the students will gain knowledge about the concepts of hazards, disasters, risk and vulnerability. In this paper an attempt has been made to prepare the students about the Do's And Don'ts during and post disaster.

HOME SCIENCE

Generic Elective (GE)			
SL. NO.	**SEMESTER**	**PAPER/COURSE**	**EXPECTED LEARNERS' OUTCOME**
Honours Course(CBCS)			
1	B.A 1st Sem	Course Code: HSCH -CC 1101: Human Development-I The Childhood Years (Theory)	After completing this course, the learners will be in a position to understand the history and interdisciplinary nature of Human Development. They will also understand different domains of growth and development at different age level (from conception to childhood)
		Course Code: HSCH -CC 1102: Human Development-I The Childhood Years (Practical)	Through this course student will practically learn prenatal development, infancy, early development and middle childhood period through audio and video sources. They will also learn cultural practices related to pregnancy and infancy. Students will plan and develop activities to facilitate development in different domains. They will also learn the role of salient others in child's life-familial and non-familial. Besides, they have conduct survey of selected resources for family and children in the community and the market.
		Course Code: HSCH -CC 1103: Food and Nutrition (Theory)	After completion of this course, the learners will Understand the functions of foods and the role of various nutrients, their requirements and effect of deficiency and excess. It will acquaint the students with the different methods of cooking and their advantages and disadvantages. Besides, students will gain knowledge about the nutrient losses in cooking.
		Course Code: HSCH -CC 1104: Human Development-I The Childhood Years (Practical)	This course will increase practical knowledge of the students on weights and measures; preparing market order and table setting. It will also increase their practical skills on Food preparation, understanding the principals involved, nutritional quality and portion size (anyone fromeach group)
2	B.A 2nd Sem	Course Code: HSCH - CC 2101: Resource Management (Theory)	It is believed that learners, after the culmination of this course, students shall be in a better position to know the importance of wise use of resources in order to achieve goal. It will also develop their appreciation of role of successful financial

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			management in satisfying family living
		Course Code: HSCH - CC 2102: Resource Management (Practical)	This course will enhance practical knowledge of students on Resource conservation and optimization/green technologies (natural resources): Identification and development of self as a resource. Preparation of time plans for self and family. It will help them to study time and motion. Further, it will help them to enhance their Event planning, management and evaluation-with reference to Managerial process, Resource optimization - time, money, products, space, human capital knowledge.
		Course Code: HSCH-CC 2103: Dynamics of Communication and Extension (Theory)	After completing this course students will be in a position to understand the historical background, concept and nature of Communication, Functions of Communication and also the Types of Communication. It will help them to understand the Scope of Communication along with Communication and mainstream media-newspaper, radio, television and Cinema, ICTs and web-based communication and needs Communication for social change. It will make them understand Human Communication, process of Communicating Effectively. Besides, it will help them to understand Communication for Extension.
		Course Code: HSCH-CC 2103: Dynamics of Communication and Extension (Practical)	After the completion of this course, it is believed that learners would be in a position to appreciate Developing skills in planning and conducting small group communication. Review of media on selected issues. Design and use of graphic media /computer aided aids.
3	B.A 3rd Sem	Course Code: HSCH -CC 3101: Introduction to Textiles (Theory)	After the completion of this course, learners will Gain knowledge regarding clothing. They will be acquainted with the different textiles and their performances. It will recognize their true potential and develop their aptitude in their area of expertise.
		Course Code: HSCH -CC 3102: Introduction to Textiles (Practical)	This course will enhance students' practical knowledge on Fibre Identification through tests – Visual, burning, microscopic and chemical. They would be able to identify Yarn. They would learn thread count and balance and Dimensional stability. They would learn weaves- Identification and their design interpretation on graph. Besides, they would learn to analysis of light, medium & heavy weight cotton fabrics.
		Course Code: HSCH -CC 3103: Communication System and Mass Media (Theory)	After completing this course students will gain knowledge regarding communication systems. Besides, they will Understand concept, significance, functions and elements of mass communication.
		Course Code: HSCH -CC 3104:	At the completion of this course students will gain practical knowledge on knowing themselves. They

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		Communication System and Mass Media (Practical)	will be studying group dynamics in organizations- formal and informal. Besides, they would learn audience analysis- readership, listenership and viewership studies and Content analysis of mass media.
		Course Code: HSCH -CC 3105: Personal Finance and Consumer Studies (Theory)	At the completion of this course students will develop an appreciation of role of successful financial management in satisfying family living. They would gain knowledge on consumer education, consumer rights and responsibilities and consumer problems in India.
		Course Code: HSCH -CC 3106: Personal Finance and Consumer Studies (Practical)	After completion of the course the learners will able to know about the evaluation and designing of advertisements in the print media includingproducts, services and social ads. They also able to learnaboutevaluation and designing of informative and attractive labels of different type of food products. Besides, they have to carry out a case study of banks or post offices to understand their services and products, learning to fill different bankforms food adulteration tests (to be specified).
4	B.A 4th Sem	Course Code: HSCH -CC 4101: Human Development-II: Development in Adolescence and Adulthood (Theory)	At the end of the course the students would have practical understanding of human development and family studies with a life - span approach(Adolescent and Adulthood). They would learn to analyse the socio emotional and cognitive changes throughout adulthood.
		Course Code: HSCH -CC 4102: Human Development-II: Development in Adolescence and Adulthood (Practical)	At the end of the course the learners would able to study physical and sexual changes in adolescenceto study cognitive development and creativity during adolescence. They would also learn case profile of an adolescent- including study of self, family relationships and peer relationships.Use of interview/questionnaire method to study adult roles (at least one male andfemale). Familiarity with Psychological Tests ofIntelligence and Personality.
		Course Code: HSCH -CC 4103: Nutrition: A Life Cycle Approach (Theory)	At the end of the course learners would understand the functions and sources of nutrients. They would know about the importance of nutrition during different stages of life. Besides, they would gain knowledge about nutrition for some social conditions.
		Course Code: HSCH -CC 4104: Nutrition: A Life Cycle Approach (Practical)	After completion the course the students would have practical knowledge of meal planning, rich sources of nutrients.
		Course Code: HSCH -CC 4105: Fashion Design Concepts (Theory)	1. Gain knowledge regarding specific skills related to fashion designing. 2. Enable to acquaint with the different fashion illustrations, pattern drafting, fashion styling, design and garment construction.
		Course Code: HSCH	1. Flat sketching of garment components

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		-CC 4106: Fashion Design Concepts (Practical)	2. Identification of garment components 3. Interpretation of elements and principles of design concepts from print and visual mediums 4. Field study and collections of famous designers' designs /designs
5	B.A 5th Sem	Course Code: HSCH -CC 5101: Life Sciences (Theory)	1. Gain knowledge on biotechnological applications. 2. Understand the propagations of plants and economic botany. 3. Apprise the significance of genetics and biotechnology to humans.
		Course Code: HSCH -CC 5102: Life Sciences (Practical)	1. Propagation of plants by seed and vegetative methods 2. Identification and classification of economically important plants
		Course Code: HSCH -CC 5103: Physical Science (Theory)	1. Gain basic knowledge of chemistry in different fields like carbohydrates, lipids, protein and polymers. 2. Familiarize with the basic development of physics involved in day-to-day life. 3. Have depth in each branch like units and measurements, sound and light and biophysics techniques.
		Course Code: HSCH -CC 5104: Physical Science (Practical)	PART A - CHEMISTRY 1. Application of natural and synthetic dyes on Fabric/ Yarn (any four) Vegetable dyes Animal dyes Mineral dyes Acid dyes Basic dyes Direct dyes PART B- PHYSICS 1. To study the working principles of the following household appliances (any four) Refrigerator Air conditioner / Air cooler Pressure cooker Microwave oven OTG
		Course Code: HSCH -DSE 1105: Indian Textile Heritage (Theory)	1. Gain knowledge about traditional Indian woven textiles and costumes 2. Know about traditional Indian embroider and dyed textiles 3. Gain knowledge on different techniques of care and storage of traditional textiles
		Course Code: HSCH -DSE 1106 Indian Textile	1. Traditional Embroideries Tie and dye

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		Heritage (Practical)	Batik Block printing Portfolio and product development Visit to craft/ Handloom center
		Course Code: HSCH – DSE 1109: Therapeutic Nutrition (Theory)	1. Received the train to provide dietary consultancy in various settings. 2. Enable to plan and prepare therapeutic diet.
		Course Code: HSCH – DSE 1110: Therapeutic Nutrition (Practical)	Planning, preparation and service of diets for the following: Therapeutic Diets – Normal, Soft, Clear and full fluid i. Fevers: acute and chronic ii. Obesity iii. Type 2 Diabetes iv. Hypertension and CHD v. Diet survey
6	B.A 6th Sem	Course Code: HSCH -CC 6101: Research Methodology in Home Science (Theory)	1. Orient about concept, purpose and approaches of research. 2. Orient qualitative techniques applied to Home Science. 3. Understand the research process.
		Course Code: HSCH -CC 6102: Research Methodology in Home Science (Practical)	1. Exercise in sampling, random number table. 2. Exercise in designing tools and their analysis: interview, questionnaire. 3. Data collection process: conducting interviews,
		Course Code: HSCH -CC 6103: Socio Economic Environment (Theory)	1. Establish value to make individual, family and social life meaningful. 2. Development of individual within family, community and culture. 3. Acquaint with current economic issues for analyse the Indian economic environment
		Course Code: HSCH -CC 6104: Socio Economic Environment (Practical)	1. Changing family trends. 2. Individuals facing Conflicts and consensus in society. 3. Case studies, narratives, films, fieldtrips to different regions, communities like tribal, rural, urban

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HISTORY

Generic Elective (GE)			
SL. NO.	**SEMESTER**	**PAPER/COURSE**	**EXPECTED LEARNERS' OUTCOME**
1	BA 1st Sem	Course Code: GE-1: History of Assam (1228-1826)	It is hoped that after studying this course, the students will acquire a general outline of the history of Assam from 13th Century to the occupation of Assam by the English East India Company in the first quarter of the 19th century. It

			will also acquaint the students with major stages of developments in the political, social and cultural history of the state during the most important formative period.
2	B.A 2nd Sem	Course Code: GE-2: History of Indian from Earliest tomes to 1526)	It is hoped that after studying this course, the students will be acquainted with the general outline of the history of Inia from the known earliest to the coming of the Mughals to India in the first quarter of the 16th century. It will also provide a comprehensive idea of the development in all spheres of life during this period to the students.
3	B.A 3rd Sem	Course Code: GE-3: History of India (1526-1947)	This course will acquaint the students with the political conditions in Northern India in the beginning of the 16th century, Mughal's conflict with Sher Shah, the later Mughals and the decline of Mughal empire, the society, economy, religion and culture under Mughal empire. It will also acquaint them with the rise of Maratha in the Deccan, beginning of European settlement, British conquest, expansion of British colonies and revolt of 1857.
4	B.A 4th Sem	Course Code: GE-4.1: History of Modern Assam (1826-1947)	This course will acquaint the students with the political condition of Assam at the time, establishment of British rule, Ahom Monarchy, regional rebellion and revolt of 1857. It also acquaints the students with land revenue measures and peasant uprisings, impact of Partition of Bengal and all other national movements and its impacts on Assam.
		Course Code: GE-4.2: History of Modern Europe (1453-1815)	This course will acquaint the students with origin and background of renaissance and reformation, colonial expansion, the scientific revolution, American War of Independence and the French Revolution.
Honours Course(CBCS)			
1	B.A 1st Sem	Course Code: HISHC 101 History of India-I	After completing this course, the learners will be acquainted with the various course materialsfor the reconstruction of Ancient Indian History and approaches of historical reconstruction. The student will also understand the various ancient cultures, the technologies, economic, political and religious development of the period concerned.
		Course Code: HISHC 102 Social Formation and Cultural Patterns of the Ancient World	After completion of this course, the learners will be acquainted with the evolution of humankind, the beginning of food production, the Bronze Age, advent of Iron, the slave society in ancient Greece, the economy and the Political culture of the ancient Greece.
2	B.A 2nd Sem	Course Code: HISHC 103 History of India-II	It is believed that learners, after the culmination of this course, shall be acquainted with the agrarian economy, the growth of urban centres in northern and central India and the Deccan as well as craft [production, trade routes and coinage. It will also

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			acquaint the student with the process of state formation and the Mauryan and Post-Mauryan politics with special reference to the Kushnas, Satavahanas and Gana-Sanhgas. It will also acquaint with land grants, land rights and peasantry, urban decline and religious traditions of early India.
		Course Code: HISHC 104 Social Formations and Cultural Patterns of the Medieval World	It is believed that learners, after the culmination of this course, shall be acquainted with the Roman Empire, slave society, the culture and trade. It will also acquaint the student with the crisis and disintegration of the Roman Empire. It will also expose the learners to economic development in Europe from 7th to 14th centuries covering production, technological developments, growth of towns and trade and feudal crisis.
3	B.A 3rd Sem	Course Code: HISHC 105 History of India-III (c.750-1206)	It is believed that learners, after the culmination of this course, shall be acquainted with the historical geography of the period and rise of Rajputs, Rashtrakutas, Palas, Prathiharas etc. It will also acquaint them with the political and social structure and the social changes, trade and commerce, religious and cultural developments of the time.
		Course Code: HISHC 106 Rise of the Modern West-I	It is believed that learners, after the culmination of this course, shall be acquainted with the transition from feudalism to capitalism, origin of renaissance and reformation. It will also acquaint them with economic development of the 16th century, emergence of European State System, 30 years war and Rise of Absolutism.
		Course Code: HISHC 107 History of India-IV (c. 1026-1550)	It is believed that learners, after the culmination of this course, shall be acquainted with the Delhi Sultanate and its political structure. It will also acquaint them with the emergence of provincial Dynasties and its society and economy as well as religion, society and culture.
4	B.A 4th Sem	Course Code: HISHC 108 Rise of the Modern West-II	It is believed that learners, after the culmination of this course, shall be acquainted with the development of Europe in various spheres from agriculture to industry, European crisis, background and result of civil war, religious and land settlement. It will also acquaint with the rise of modern science, development of enlightenment, origin and development of American Revolution.
		Course Code: HISHC 109 History of India-V (c. 1550-1605)	It is believed that learners, after the culmination of this course, shall be acquainted with the sources of Historiography. It will also acquaint them with establishment of Mughal rule, consolidation of Mughal rule under Akbar, its society, economy, political and religious ideals.
		Course Code: HISHC 110 History of India-VI	It is believed that learners, after the culmination of this course, shall be acquainted with the sources of Historiography. It will also acquaint them with

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		(c. 1605- 1750)	political culture under Jahangir and Shah Jahan, Mughal empire under Aurangzeb and after. It will also acquaint them with the Mughal's visual culture, trade and commerce.
5	B.A 5th Sem	Course Code: HISHC: 1011 History of Modern Europe-I (c. 1780-1939)	This course will acquaint the students with the French Revolution and its European Repercussions, Restoration and Revolutions (e1815-1848), Capitalist Industrialization and Social and Economic Transformation (late 18th century to 1914 AD). It will also acquaint the student with varieties of Nationalism and the remaking of states in the 19th& 20th centuries and also about World War-I
		Course Code: HISHC 1012 History of India-VII (c. 1857-1950)	This course will acquaint the students with the India of the mid-18th century. Colonial India and its Ideology, Trade and Industry and Popular Resistance.
		Course Code: HISHDSC 501 Early and Medieval Assam till 1826	This course will acquaint the students with the various sources, foundation of Ahom state and its consolidation and expansion, state formation in the Brahmaputra Valley, political development in the 17th century, Ahom-Mughal conflict. It will also acquaint them with tribal kingdoms and the decline of Ahom kingdom.
		Course Code: HISHDSC 502 History of Assam (1826-1947)	This course will acquaint the students with the political condition of Assam on the eve of the British rule, establishment of British rule in Assam. Impact of revolt 0f 1857 and its aftermath, Govt. of India Act 1919 and also about Ahom Administration.
6	B.A 6th Sem	Course Code: HISHC 1013 History of India-VIII (c. 1857-1950)	This course will acquaint the students with the cultural changes and religious reform movements in India, Nationalism trends upto 1919, Ideas and movements of Gandhian Nationalism after 1919, nationalism and social groups of the time leading to Independence and Partition.
		Course Code: HISHC 1014 History of Modern Europe-II (c. 1780-1939)	This course will acquaint the students with liberal democracy, the crisis of feudalism in Russia and experiments in socialism, imperialism, war and crisis from 1880-1939. It will also acquaint them with Post 1919 political development, cultural and intellectual development since 1850.
		Course Code: HISHDSC 601 Social and Economic History of Assam	This course will acquaint the students with Social and Economic History of Ancient Assam, Society in Medieval Assam, Economy in Medieval Assam and also about trade Union and Allied Movements etc.
		Course Code: HISHDSC 602 Historiography	This course will acquaint the students with the concept and sources of History, evolution of Historiography, renaissance to enlightenment historiography, historical traditions in India and development of History Writings in India in Modern Period.

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		Course Code: HISHDSC 603 History of United States of America (c. 1776-1945)	This course will acquaint the students with This course will acquaint the students with the land and indigenous people of American, Revolutions, war of 1812, Abolitionism and sectionalism, growth of Capitalism and Big Business, Spanish -American War 0f 1989, USA and World War-II

PHILOSOPHY

Generic Elective (GE)			
SL. NO.	**SEMESTER**	**PAPER/COURSE**	**EXPECTED LEARNERS' OUTCOME**
1	BA 1st Sem	Course Code: GE-1: Introduction to Philosophy	It is hoped that after studying this course, the students will be acquainted with the basic ideas of philosophy concerning theories and categories of knowledge and truth.
2	B.A 2nd Sem	Course Code: GE-2: Introduction to Logic	It is hoped that after studying this course, the students will be acquainted with the basic ideas of Aristotelian and symbolic logic.
3	B.A 3rd Sem	Course Code: GE-3: Fundamentals of Indian Philosophy	This course will acquaint the students with basic problems of Epistemology and Metaphysics in Classical Indian Philosophy.
4	B.A 4th Sem	Course Code: GE-4: Applied Ethics	This course will acquaint the students with the basic ideas of applied ethics concerning value of life, environment ethics and professional ethics.
Honours Cours(CBCS)			
1	B.A 1st Sem	Course Code: C1 Indian Philosophy	After completing this course, the learners will be acquainted with the basic problems of epistemology and metaphysics in Classical Indian Philosophy.
		Course Code: C2 Logic	After completion of this course, the learners will be acquainted with logical reasoning and testing of them in Aristotelian and Modern Symbolic Logic.
2	B.A 2nd Sem	Course Code: C3 Ancient Greek Philosophy	It is believed that learners, after the culmination of this course, shall be acquainted with the problems of epistemology and metaphysics of Greek Philosophy.
		Course Code: C4 Indian Logic	It is believed that learners, after the culmination of this course, shall be acquainted with the development of critical understanding of Indian Logic.
3	B.A 3rd Sem	Course Code:C5 Modern Western Philosophy	It is believed that learners, after the culmination of this course, shall be acquainted with the problems of Modern Western Philosophy and to develop systematic and critical understanding.
		Course Code: C6 Indian Ethics	It is believed that learners, after the culmination of this course, shall be acquainted with the basic ethical concepts of Indian Philosophy and develop critical thinking.
		Course Code: C7 Western Ethics	It is believed that learners, after the culmination of this course, shall be acquainted with different ethical concepts of Western Philosophy and to

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			develop critical understanding.
4	B.A 4th Sem	Course Code: C8Contemporary Indian Philosophy-I	It is believed that learners, after the culmination of this course, shall be acquainted with the philosophical problems from the perspective of contemporary Indian philosophers.
		Course Code: C9 Social and Political Philosophy	It is believed that learners, after the culmination of this course, shall be acquainted with different social and political ideas from philosophical perspective and to develop systematic and critical understanding about them.
		Course Code: C10 Philosophy of Religion	It is believed that learners, after the culmination of this course, shall be acquainted with different philosophical issues and theories regarding religion.
5	B.A 5th Sem	Course Code: C11 Contemporary Indian Philosophy-II	This course will acquaint the students with different interpretations given by contemporary Indian thinkers and to develop critical understanding about them.
		Course Code: C12 Existentialism and Phenomenology	This course will acquaint the students with some of the very important movements and positions of Western Philosophy with specific thinkers.
		Course Code: DSC-1(I) Philosophy of Vedas and Upanisads	This course will acquaint the students with the origin and history of Indian Philosophy.
		Course Code: DSC-1(II) Aesthetics	This course will acquaint the students with the preliminaries of aesthetics and also of certain concepts and theories.
		Course Code: DSC-2(I) Meta-ethics	This course will acquaint the students with certain problems of meta-ethics and to develop an understanding on them.
		Course Code: DSC-2(II) Philosophy of Feminism	This course will enable the students to understand feminism as a movement and to develop an understanding of women's rights on the ground of equality of the sexes.
6	B.A 6th Sem	Course Code: C13 Comparative Religion	This course will acquaint the students with the characteristics and comparative study of different aspects of world religions.
		Course Code: C14 Analytic Philosophy	This course will acquaint the students with the analytic trends in western philosophy and its different dimensions leading to critical analysis.
		Course Code: DSC-3(I) Psychology	This course will acquaint the students with the nature as well as methods of psychology and the traits of personality with theories of learning.
		Course Code: DSC-3(II) Philosophy of Mind	This course will acquaint the students with certain issues in connection with philosophy of mind.
		Course Code: DSC-4(I) Applied Ethics	This course will acquaint the students with basic of applied ethics concerning value of life, environment ethics and professional ethics.

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		Course Code: DSC-4(II) Project Work	This course will allow the students to work independently with their own capabilities. It will provide a learning experience in which students have the opportunity to synthesize knowledge from various fields of philosophical learning.

POLITICAL SCIENCE

Generic Elective (GE)			
SL. NO.	**SEMESTER**	**PAPER/COURSE**	**EXPECTED LEARNERS' OUTCOME**
1	BA 1st Sem	Course Code: GE-1A: Nationalism in India	It is hoped that after studying this course, the students will understand the struggle of Indian people against colonialism. It will also acquaint the students with the various conflicts and contradictions by focusing on its different dimensions such as communalism, class struggle, caste and gender questions.
		Course Code: GE-1B: Contemporary Political Economy	This course will acquaint the students with the different theoretical approaches and it will give a brief overview of the history of the evolution of the modern capitalist world. It will also highlight the important contemporary problems, issues and debates on how these should be addressed.
2	B.A 2nd Sem	Course Code: GE-2A: Feminism: Theory and Practice	This course will acquaint the students with the contemporary debates on feminism and the history of feminist struggles. It will also familiarize the students with the history of feminism in the west, socialist societies and in anti-colonial struggles.
		Course Code: GE-2B: Gandhi and the Contemporary World	It is hoped that after studying this course, the students will be introduced to the key instances of Gandhi's continuing influence right up to the contemporary period and enable them to critically evaluate his legacy.
3	B.A 3rd Sem	Course Code: GE-3A: Understanding Ambedkar	This course will acquaint the students with Ambedkar's ideas and their relevance to contemporary India, by looking beyond caste. It is hoped that this will facilitate the students to strengthen their creative thinking with a collective approach to understand ongoing social, political, cultural and economic phenomena of the society.
		Course Code: GE-3B: Governance: Issues and Challenges	This course will acquaint the students with the concepts and different dimensions of governance highlighting the major debates in the contemporary times.
4	B.A 4th Sem	Course Code: GE-4A: Political of Globalization	This course will acquaint the students with the process of globalization from political perspective. It will help the student to understand the issues and processes of globalization based on critical analysis of the various anchors and dimensions of globalization.
		Course Code:	This course will enable the students to have a

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		GE-4B: United Nations and Global Conflicts	comprehensive understanding to the most important multilateral political organization in international relations. It will help the students to critically understand the UN's performance until now and the imperatives as well as processes of forming the organization in the context of the contemporary global system.
Honours Course(CBCS)			
1	B.A 1st Sem	Course Code: C1 Understanding Political Theory	After completing this course, the learners will be acquainted with the idea of political theory, its history and approaches, and an assessment of its critical and contemporary trends.
		Course Code: C2 Constitutional Government AN Democracy in India	After completion of this course, the learners will be acquainted with the constitutional design of states' structure and institutions, and their actual working overtime. It will also acquaint them with the conflicting impulses of Indian constitution and its provisions.
2	B.A 2nd Sem	Course Code: C3 Political Theory: Concepts and Debates	It is believed that learners, after the culmination of this course, shall be acquainted with the basic normative concepts of political theory which will encourage critical and reflective analysis and interpretation of social practices through the relevant conceptual toolkit. It will also introduce the students to the important debates in the subject.
		Course Code: C4 Political Process in India	It is believed that learners, after the culmination of this course, shall be acquainted with the working of 'modern institutions, premised on the existence of an individuated society, in a context marked by communitarian solidarities, and their mutual transformation thereby. Further, it will also familiarize students with the working of the Indian state, paying attention to the contradictory dynamics of modern state power.
3	B.A 3rd Sem	Course Code: C5 Introduction to Comparative Government and Politics	It is believed that learners, after the culmination of this course, shall be acquainted with the basic concepts and approaches to the study of comparative politics in a historical framework while engaging with various themes of comparative analysis in developed and developing countries.
		Course Code: C6 Perspectives on Public Administration	It is believed that learners, after the culmination of this course, shall be acquainted with public administration in its historical context with an emphasis on the various classical and contemporary administrative theories. This course will also provide knowledge on the recent trends, including feminism and ecological conservation and hoe the call for greater democratization is restructuring public administration. It will also provide the students a comprehensive understanding on contemporary administrative developments.

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		Course Code: C7 Perspectives on International Relations and World History	This course will equip the students with the basic intellectual tools for understanding International Relations and also the most important theoretical approaches for studying international relations. It will also help them to learn key milestones in world history and equip them with the tools to understand and analyse the same from different perspectives.
4	B.A 4th Sem	Course Code: C8 Political Processes and Institutions in Comparative Perspective	It is believed that learners, after the culmination of this course, will be trained in the application of comparative methods to the study of politics. It will introduce the students to some of the range of issues, literature and methods that cover comparative politics.
		Course Code: C9 Public Policy and Administration in India	It is believed that learners, after the culmination of this course, shall be acquainted with the interface between public policy and administration in India. It will also acquaint them to the issues of decentralization, financial management, citizens and administration and social welfare from a non-western perspective.
		Course Code: C10 Global Politics	It is believed that learners, after the culmination of this course, shall be acquainted with the key debates on the meaning and nature of globalization by addressing its political, economic, social, cultural and technological dimensions. It will also offer insights into key contemporary global issues such as the proliferation of nuclear weapons, ecological issues, international terrorism, and human security before concluding with a debate on the phenomenon of global governance.
5	B.A 5th Sem	Course Code: C11 Classical Political Philosophy	This course will acquaint the students with the manner in which the political questions were first posed from Machiavelli, Hobbes to Locke.
		Course Code: C12 Indian Political Thought-I	This course will acquaint the students with the specific elements of Indian Political Thoughts spanning over two millennia. This course as a whole is meant to provide a sense of the broad streams of Indian thought while encouraging a specific knowledge of individual thinkers and texts.
		Course Code: DSC-1A Contemporary Politics in Assam	This course will acquaint the students with the politics of contemporary Assam and its neighbouring state. It will also provide the basic knowledge to understand the region.
		Course Code: DSC-1B Dilemmas in Politics	This course will acquaint the students with the eight selected dilemmas that discussed across societies. This course will explore, analyze and evaluate some of the central issues, values and debates in the contemporary world that has a bearing on normative political inquiry.
		Course Code: DSC-2A	This course will acquaint the students with human rights and build an understanding of human rights

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		Human Rights in a Comparative Perspective	through a study of specific issues in the Indian context and pulls out another country to form a broader in a comparative perspective and frame.
		Course Code: DSC-2B Development Process and Social Movements in Contemporary India	This course will enable the students to understand the conditions, contexts and forms of political contestation overdevelopment paradigms and their bearing on the retrieval of democratic voices of citizens.
6	B.A 6th Sem	Course Code: C13 Modern Political Philosophy	This course will acquaint the students with the five main tendences modern political philosophyand also to the manner in which the questions of politics have been posed in terms that have implications for larger questions of thought and existence.
		Course Code: C14 Indian Political Thought-II	This course will acquaint the students with a wide span of thinkers and themes that defines the modernity of Indian political thought.
		Course Code: DSC-3A Public Policy in India	This course will acquaint the students with the theoretical and practical understanding of the concepts and methods that can be employed in the analysis of public policy. It will also help the student who seek an integrative link to their understanding of political science, economic theory and the practical world of development and social change.
		Course Code: DSC-3B Understanding Global Politics	This course will acquaint the students with the basic yet interesting and insightful way of knowing and thinking about the world around them.
		Course Code: DSC-4A India's Foreign Policy in a Globalizing World	This course will acquaint the students with the domestic sources and the structural constraints on the genesis, evolution and practice of India's foreign policy. It will also acquaint the students on India's shifting identity as a postcolonial state to the contemporary dynamics of India attempting to carve its identity as an 'aspiring power'.
		Course Code: DSC-4B Understanding South Asia	This course will introduce the students to the historical legacies and geopolitics of South Asia as a region. It will also acquaint the students to the common challenges and the strategies deployed to deal with them by countries in South Asia.

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SOCIOLOGY

Generic Elective (GE)			
SL. NO.	**SEMESTER**	**PAPER/COURSE**	**EXPECTED LEARNERS' OUTCOME**
1	BA 1st Sem	Course Code: GE-01: Indian Society: Images and Realities	This course will provide the students with an interdisciplinary introduction to Indian society.

2	B.A 2nd Sem	Course Code: GE-02: Family and Intimacy	This course will introduce the students to a range of contemporary concerns pertaining to this institution from a sociological perspective and with an interdisciplinary orientation.
3	B.A 3rd Sem	Course Code: GE-03: Rethinking Development	This course will provide the students with the idea of development from a sociological perspective. It will introduce the students to different approaches to understand development and traces the trajectory on Indian experience with development from an interdisciplinary perspective.
4	B.A 4th Sem	Course Code: GE-04: Gender and Violence	This course will acquaint the students with gendered violence as routine and spectacular, structural as well as situated. This course will provide an understanding of the logic of that violence, awareness of its most common forms and tries to equip the students with a sociologically.
Honours Course(CBCS)			
1	B.A 1st Sem	Course Code: C1 Introduction to Sociology-I	It is hoped that after studying this course, the students will introduce to a sociological way of thinking. It will also provide a foundation for the other more detailed and specialized courses in Sociology.
		Course Code: C2 Sociology of India-I	It is hoped that after studying this course, the students will be introduced to the processes and modes of construction of knowledge of India. It will also draw attention to the key concepts and institutions which are useful for the understanding of Indian society.
2	B.A 2nd Sem	Course Code: C3 Introduction to Sociology-II	It is believed that learners, after the culmination of this course, shall be acquainted with the sociological thought. It will also provide knowledge on how over period of time thinkers have conceptualized various aspects of society. This course will also provide a foundation for thinkers in other papers.
		Course Code: C4 Sociology of India-II	It is believed that learners, after the culmination of this course, shall be acquainted with the variety of ideas and debates about India. It will also critically engage with the multiple socio-political forces and ideologies which shape the terrain of the nation.
3	B.A 3rd Sem	Course Code: C5 Political Sociology	It is believed that learners, after the culmination of this course, shall be acquainted with the major theoretical debates and concepts in Political Sociology, while situating these within contemporary political issues. This course will help students to develop a comparative understanding of political relationships through such as power, governance and state and society relationships.
		Course Code: C6 Sociology of Religion	It is believed that learners, after the culmination of this course, shall understand religion over individual religions. It will provide the students with the linkage between social and religious

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			through different registers mentioned in the outline.
		Course Code: C7 Sociology of Gender	It is believed that learners, after the culmination of this course, shall be acquainted gender as a critical sociological lens of enquiry in relation to various social fields. It will also provide knowledge on the categories of gender, sex and sexuality.
4	B.A 4th Sem	Course Code: C8 Economic Sociology	It is believed that this course will provide an understanding of the social and cultural bases of economic activity. It will also highlight the significance of sociological analysis for the study of economic processes in local and global contexts.
		Course Code: C9 Sociology of Kinship	It is believed this course will introduce the students to the general principles of kinship and marriage by reference to key terms and theoretical sustained by ethnographies. It will also provide the trajectories and new directions in kinship studies.
		Course Code: C10 Social Stratification	It is believed that learners, after the culmination of this course, shall be acquainted with the Sociological Study of Social Inequalities. It will acquaint the students with the principal theoretical perspectives on and diverse forms of social inequality in articulation with each other.
5	B.A 5th Sem	Course Code: C11 Social Thinker-I	This course will introduce the students to the classics in the making of the discipline of sociology through selected texts by the major thinkers.
		Course Code: C12 Sociological Research Methods	This course will acquaint the students with the methodologies of sociological research methods. It will also provide the students with some elementary knowledge of the complexities and philosophical underpinnings of research.
		Course Code: DSC-01 Urban Sociology	This course will acquaint the students with the key theoretical perspectives for understanding urban life in historical and contemporary contexts. It will also acquaint the students with some concerns of urban living while narrating the subjective experiences of urban communities. It will also help the students to relate to the complexities of urban living.
		Course Code: DSC-02 Agrarian Sociology	This course will acquaint the students with the traditions of enquiry and key substantive issues in agrarian sociology. It will also introduce the students on emerging global agrarian concerns.
		Course Code: DSC-03 Environmental Sociology	This course will introduce the students to the core debates of environmental sociology, different approaches within the sub-discipline and how these approaches may be used to understand environmental issues and movements in India.
		Course Code: DSC-04 Sociology of Work	This course will enable the students to understand that through work and production have been integral to societies through time, the origin and

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			spread of industrialization made a distinct rupture to that link.
6	B.A 6th Sem	Course Code: C13 Sociological Thinker-II	This course will introduce the students to post-classical sociological thinking through some original texts.
		Course Code: C14 Sociological Research Methods-II	This course will acquaint the students with the research methods with special emphasis on formulating research design, methods of data collection, and data analysis. It will provide students with some elementary knowledge on how to conduct both quantitative and qualitative research.
		Course Code: DSC-05 Sociology of Health and Medicine	This course will acquaint the students with the sociology of health, illness and medical practice by highlighting the significance of socio-cultural dimensions in the construction of illness and medical knowledge.
		Course Code: DSC-06 Indian Sociological Traditions	This course will acquaint the students primarily with the perspectives of key Indian sociologists on some of the issues like 'Sociology in India' and 'Sociology of India' and western influence on it.
		Course Code: DSC-07 Visual Cultures	This course will acquaint the students to the construction of 'seeing' as a social process. This course will allow a scope to contextualize everyday visual culture within larger social debates around power, politics, identity and resistance.
		Course Code: DSC-08 Reading Ethnographies	This course will introduce the students to the reading of ethnographies.
		Course Code- DSC-09 Societies in North East India	This course will provide the students with a sociological understanding of societies in North East India. It will provide a multi-dimensional understanding of North East India with respect to social, historical, political and economic dimensions. This will also provide a sociological understanding of the specificity of world views of diverse communities along with the emerging socio-economic processes of the region.

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e Outcome-2020-2021
(Science Stream-CBCS)
L.T.K. College, Azad, North Lakhimpur

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Contents:

BOTANY

Honours Course-I(CBCS)			
SL. NO.	**SEMESTER**	**PAPER/COURSE**	**EXPECTED LEARNERS' OUTCOME**
1	B.Sc. 1st Sem	CORE-I: Microbiology and Phycology	It is hoped that after completing this course, the students will learn about various forms of microbes and algae-their characteristics and economic importance.
		CORE-II: Biomolecules and Cell Biology	After completing this course, the students learn about the types and significant of chemical bonds; Structure and properties of water. Carbohydrates, Proteins, Lipids, Nucleic acids etc.
2	B.Sc. 2nd Sem	Core-III: Mycology and Phytopathology	It is hoped that after completing this course, the students learn about fungi, Chytridiomycota, Zygomycota, Ascomycota and Basidiomycota, Allied fungi and Oomycota, Symbiotic, associations, Applied Mycology and Phytopathology *etc.*
		Core-III (Practical): Mycology and Phytopathology	After completion the course the students learn about the world of fungi, Rhizopus, Aspergillus and Penicillium, Peziza, Alternaria, Puccinia, Agaricus, Albugo, Lichens *etc.*
		Core-IV: Archegoniate	After completion of this course the students will learn about Bryophyte, Gymnosperms and Fossil Plants
3	B.A 3rd Sem	Course Code :**BC305T** Core-V: **Anatomy of Angiosperms**	The students will learn about structural and anatomical organisations of plant tissues and their development
		Course Code :**BC305P** Core-V: **Anatomy of Angiosperms**	The students will learn about the practical knowledge of structural and anatomical organisations of plant tissues and their development
		Course Code: BC306T Core VI: Economic Botany	After completion of this course the student will able to know about various economically important plants and plant products
		Course Code: BC306P	After completion of this course the student will able to know about the practical knowledge ofvarious economically important plants

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		Core Course VI - Practical: Economic Botany	and plant products
		Course Code: BC307T Core Course VII: Genetics	After completion of this course, students will learn the principles of heredity and different mechanisms of inheritance
		Course Code: BC307P Core Course VII - Practical: Genetics	After completion of this course, students will gain practical knowledge on the principles of heredity and different mechanisms of inheritance.
4	B.A 4th Sem	**Course Code: BC408T Core Course VIII: Molecular Biology**	After the completion of this course students will able to learn about Biological Macromolecules and various processes involved with these macromolecules
		Course Code: BC408P Core Course VIII - Practical: Molecular Biology	After the completion of this course students will gain practical knowledge about Biological Macromolecules and various processes involved with these macromolecules
		Course Code: BC409T Core Course IX: Plant Ecology and Phytogeography	After the completion of this course the students will learn about interaction of plant with its surroundings and also the geographic distribution of different plants
		Course Code: BC409P Core Course IX - Practical: Plant Ecology and Phytogeography	After the completion of this course the students will gain practical knowledge about interaction of plant with its surroundings and also the geographic distribution of different plants
		Course Code:	After completion of this course the

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		BC410T Core Course X: Plant Systematics	students will learn about identification, classification and nomenclature of higher plants
		Course Code: BC410P Core Course X - Practical: Plant Systematics	After completion of this course the students will gain the practical knowledge about identification, classification and nomenclature of higher plants
5	B.A 5th Sem	**Course Code: BC511T Core Course XI: Reproductive Biology of Angiosperms**	It is hoped that the learners after completing this course, they will gain the knowledge about the process and mechanisms of plant reproduction.
		Course Code: BC511P Core Course XI - Practical: Reproductive Biology of Angiosperms	It is hoped that the learners after completing this course, they will gain the practical knowledge about the process and mechanisms of plant reproduction.
		Course Code: BC512T Core Course XII: Plant Physiology	After completion of this course the students will learn about the different physiological processes in plant life.
		Course Code: BC512P Core Course XII – Practical: Plant Physiology	After completion of this course the students will gain the practical knowledge about the different physiological processes in plant life.
6	B.A 6th Sem	**Course Code: BC613T Core Course XIII: Plant Metabolism**	After completion of this course the students will able to know about various metabolic processes involved with plant life
		Course Code: BC613P Core Course XIII	After completion of this course the students will gain the practical knowledge about various metabolic processes involved with plant life

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		- Practical: Plant Metabolism	
		Course Code: BC614T Core Course XIV: Plant Biotechnology	After completion of this course the students will gain the knowledge of the application of modern tools and techniques in Biology
		Course Code: BC614P Core Course XIV - Practical: Plant Biotechnology	After completion of this course the students will gain the practical knowledge of the application of modern tools and techniques in Biology.

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CHEMISTRY

Honours Course-I(CBCS)			
1	B.A 1st Sem	Course No.: CHEMISTRY-C-101 (Inorganic Chemistry)	After completion of this course the students will able to know about basicknowledgeofchemistryinrelationtoatomicstructure,bonding,periodicityetc
		Course No.: CHEMISTRY-C-**101-LAB** (Inorganic Chemistry)	After completion of this course the students will able to know about the practical knowledge ofchemistryinrelationtoatomicstructure,bonding,periodicityetc
		CourseNo.:**CHEMISTRY C-102(PhysicalChemistry)**	After completion this course the students will able to know emphasize on different states of matter & their mechanicaltreatment.
		CourseNo.:**CHEMISTRY-C-102-LAB (PhysicalChemistry)ContactHours :60**	After completion this course the students will gain practical knowledge on emphasize on different states of matter & their mechanicaltreatment.
2	B.A 2nd Sem	CourseNo.:**CHEMISTRY-C-201 (OrganicChemistry)**	After completion of this course the students will able to know about preliminary knowledge in basic organic chemistry,Hydrocarbons,stereochemistry&conformationalanalysis.
		CourseNo.:**CHEMISTRY-C-201-LAB (OrganicChemistry)**	After completion of this course the students will gain practical knowledge about preliminary knowledge in basic organic chemistry,Hydrocarbons,stereochemistry&conformationalanalysis.
		CourseNo.:**CHEMISTRY-C-202**	After completion of this course the students will able

		(PhysicalChemistry)	to know about chemical thermodynamics,theirmathematicalexpression&application.
		CourseNo.:**CHEMISTRY-C-202-LAB (PhysicalChemistry)**	After completion of this course the students will gain practical knowledge about chemical thermodynamics,theirmathematicalexpression&application.
3	B.A 3rd Sem	CourseNo.:**CHEMISTRY-C-301 (InorganicChemistry)**	After completion of this course the students will able to know about the chemistry of s, p blockelements,noblegases,inorganicpolymers&metallurgy.
		CourseNo.:**CHEMISTRY-C-301-LAB (InorganicChemistry)**	After completion of this course the students will gain practical knowledge about the chemistry of s, p blockelements,noblegases,inorganicpolymers&metallurgy.
		CourseNo.:**CHEMISTRY-C-302 (OrganicChemistry)**	After completion of this course the students will able to know about synthesis, properties oforganiccompoundsofHalogen&oxygencontainingFunctionalgroups.
		CourseNo.:**CHEMISTRY-C-302-LAB (OrganicChemistry)**	After completion of this course the students will gain practical knowledge about synthesis, properties oforganiccompoundsofHalogen&oxygencontainingFunctionalgroups.
		CourseNo.:**CHEMISTRY-C-303 (PhysicalChemistry)**	After completion of this course the students will able to know about the phaseequilibria,chemicalkinetics,catalysisandsurfacechemistry.
		CourseNo.:**CHEMISTRY-C-303-LAB (PhysicalChemistry)**	After completion of this course the students will gain practical knowledge about thephaseequilibria,chemicalkinetics,catalysisandsurfacechemistry.
4	B.A 4th Sem	CourseNo.:**CHEMISTRY-C-401 (InorganicChemistry)**	After completion of this course the students will able to know about the coordination chemistry and itsapplicationextendedtobiologicalsystem
		CourseNo.:**CHEMISTRY-C-401-LAB (InorganicChemistry)**	After completion of this course the students will gain practical knowledge about the coordination chemistry and itsapplicationextendedtobiologicalsystem
		CourseNo.:**CHEMISTRY-C-402 (OrganicChemistry)**	After completion of this course the students will lean about the preparation and properties ofdifferentclassesnitrogencontainingcompounds.Emphasisisgiventoheterocycliccompoundsofbothsyntheticandnaturalorigin.
		CourseNo.:**CHEMISTRY-C-402-LAB (OrganicChemistry)**	After completion of this course the students will gain practical knowledge about the preparation and properties ofdifferentclassesnitrogencontainingcompounds.Em

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			phasisisgiventoheterocycliccompoundsofbothsynthe ticandnaturalorigin.
		CourseNo.:**CHEMISTRY-C-403 (PhysicalChemistry)**	After completion of this course the student will able to know about electrochemistry,variouslawsgoverningelectrochemi calprocessandtheirapplication.
		CourseNo.:**CHEMISTRY-C-403-LAB (PhysicalChemistry)**	After completion of this course the student will gain practical knowledge about electrochemistry,variouslawsgoverningelectrochemi calprocessandtheirapplication
5	B.A 5th Sem	CourseNo.:**CHEMISTRY-C-501 (OrganicChemistry)**	After completion of this course the students will able to know about theorganicsynthesis,retrosynthesis,andtounderstandbi ochemistry.
		CourseNo.:**CHEMISTRY-C-501-LAB (OrganicChemistry)**	After completion of this course the students will gain practical knowledge about theorganicsynthesis,retrosynthesis,andtounderstandbi ochemistry.
		CourseNo.:**CHEMISTRY-C-502 (PhysicalChemistry)**	After completion of this course the students will able to learn about the various aspects of photochemistryandquantumchemistry.
		CourseNo.:**CHEMISTRY-C-502-LAB (PhysicalChemistry)**	After completion of this course the students will gain practical knowledge about the various aspects of photochemistryandquantumchemistry.
		CourseNo.:**CHEMISTRY-DSE-501** *(AnalyticalMethodsinChemistry*	After completion of this course the students will able to learn about the spectroscopy, qualitative andquantitative aspectsofanalysisandthermalanalysis.
		CourseNo.:**CHEMISTRY-DSE-501-PRACT.** *AnalyticalMethodsinChemistry*	After completion of this course the students will gain practical knowledge about the spectroscopy, qualitative andquantitative aspectsofanalysisandthermalanalysis.
		CourseNo.:**CHEMISTRY-DSE-502** *(GreenChemistry)* ContactHours:6	After completion of this course the students will learn about the greenchemistryanditsfuturetrends.
		CourseNo.:**CHEMISTRY-DSE-502-LAB** *(GreenChemistry)*	After completion of this course the students will gain practical knowledge aboutchemistryanditsfuturetrends.
6	B.A 6th Sem	CourseNo.:**CHEMISTRY-C-601 (InorganicChemistry)**	After completion of this course the students will learn about the organometalicchemistry,itsapplicationandInorganicR eactionMechanism
		CourseNo.:**CHEMISTRY-C-601-LAB (InorganicChemistry)**	After completion of this course the students will gain practical knowledge about the organometalicchemistry,itsapplicationandInorganicR eactionMechanism

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		CourseNo.:**CHEMISTRY-C-602 (OrganicChemistry)**	After completion of this course the students will learn about the application of Spectroscopy (UV – visible,IRandNMR),carbohydrates,dyesandpolymers.
		CourseNo.:**CHEMISTRY-C-602-LAB** (Organic Chemistry)	After completion of this course the students will gain practical knowledge about the application of Spectroscopy (UV – visible,IRandNMR),carbohydrates,dyesandpolymers.
		CourseNo:**CHEMISTRY-DSE-601** *(InorganicMaterialsofIndustrialImportance)*	After the culmination of this course, the students will able to know aboutfertilizers,surfacecoating,silicateindustries,batteriesetc.
		CourseNo.:**CHEMISTRY-DSE-601-LAB** *(InorganicMaterialsofIndustrialImportance)*	After the culmination of this course, the students will gain practical knowledge aboutfertilizers,surfacecoating,silicateindustries,batteriesetc.

MATHEMATICS

SL. NO.	SEMESTER	PAPER/COURSE	EXPECTED LEARNERS' OUTCOME
Honours Course-I(CBCS)			
1	B.A 1st Sem	C1.1 Calculus	After going through this course the students will be able to • Apply Calculus in real life problems • Formulate mathematical models
		CoC1.2 Algebra	After going through this course the students will be able to • Describe various algebraic structures on sets • Identify the algebraic structures present in different branches of Sciences
2	B.A 2nd Sem	C2.1 Real Analysis	After going through this course the students will be able to • Identify the properties of the number system. • Describe various analytical properties of the real number system.
		C2.2 Differential Equations	After going through this course the students will be able to • Use the techniques to solve differential equations. • Apply these techniques in various mathematical models used in real life problems.
3	B.A 3rd Sem	C3.1 Theory of Real Functions	After going through this course the students will be able to • Discuss limit, continuity and differentiability of real valued functions • Expand functions in series and different

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			form of remainders
		C3.2 Group Theory I	After going through this course the students will be able to • Describe various group structures on sets. • Indentify the group structures present in different branches of sciences.
		C3.3 PDE and Systems of ODE	After going through this course the students will be able to • Make mathematical formulations and their solutions of various physical problems; • Design mathematical models used in heat, wave. • Describe the Laplace equation and their solutions.
4	B.A 4th Sem	C4.1 Numerical Methods	After going through this course the students will be able to • Discuss various numerical methods and interpolation formulae • Apply numerical techniques for solving differential equation.
		C4.2 Riemann Integration and Series of Functions	After going through this course the students will be able to • Riemann integration, improperintegrals • Differentiation and integration of powerseries
		C4.3 Ring Theory and Linear Algebra I	After going through this course the students will be able to • Describe various ring structures on sets. • Solve the system of linear equations.
5	B.A 5th Sem	C5.1 Multivariate Calculus	After going through this course the students will be able to • Extend the concepts from one variable calculus to function of several variables • Demonstrate the ability to think critically and solving application of real world problems involving double/ triple integrals.
		C5.2 Group Theory II	After going through this course the students will be able to • Apply results from preliminary concepts to solve contemporary problems. • Apply in communication theory, electrical engineering, computer science and cryptography
6	B.A 6th Sem	C6.1 Metric Spaces and Complex Analysis	After going through this course the students will be able to describe • Various properties of metrics paces • Complex number system, its differentiation and integration.
		C6.2 Ring Theory and Linear Algebra II	Students will be able to Apply theorems proof/ solution techniques to

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			solve real worldproblems Find the matrix associated with a linear transformation w.r.t.given bases and can understand the relationship between operations of linear transformations and corresponding matrices.

PHYSICS

SL. NO.	SEMESTER	PAPER/COURSE	EXPECTED LEARNERS' OUTCOME
Honours Course-I(CBCS)			
1	B.Sc 1st Sem	Course Code: PHYSICS-C-I Course Title: MATHEMATICAL PHYSICS – I	At the completion of this course, a student will be able to • Write a problem in Physics in the language of Mathematics. • Identify a range of diverse mathematical techniques to formulate and solve a problem in basic Physics. • Analyze some of the basic mathematical concepts and methods. • Apply the knowledge and understanding of these mathematical methods to solve problems in a number of elementary branches of Physics like mechanics, electromagnetic theory, statistical Physics, thermal Physics etc. • Learn computer programming and numerical analysis and know its role in solving problems in Physics. • Construct a problem in Physics computationally.
		PHYSICS-C I: MATHEMATICAL PHYSICS-I (LAB)	After completion of this course the students will gain practical knowledge of mathematical physics.
		Course code: Physics-C- II Course title: MECHANICS	At the completion of this course, a student will be able to • Understand the basic concepts and ideas in mechanics- e.g. motion, force and torque, mass and moment of inertia, linear and angular momentum, kinetic energy and potential energy etc. by parallel studies of linear dynamics and rotational dynamics. • Understand the basic conservation laws by studying them in various mechanical systems including collisions, oscillations, gravitational systems etc. • Analyze simple harmonic oscillator in detail • Study planetary motions as a central force problem.

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			• Understand the concept of frame of reference, importance of relative transformations and invariance of laws of Physics. • Realize the consequences of non-inertial frame in our real physical world. • 7. Know about the peculiar phenomena of special relativity which are not seen in Newtonian relativity and to understand the concept of space-time.
		PHYSICS -C II MECHANICS (LAB)	After completion of this course the students will gain practical knowledge about Mechanics.
2	B.Sc 2nd Sem	Course code: PHYSICS–C III Course title: ELECTRICITY AND MAGNETISM	At the completion of this course, a student will be able to : Gain basic knowledge of electricity and magnetism. Understand the electrical and magnetic properties of matter in brief. Understand the effect of electric field on magnetic field and the effect of magnetic field on current. Understand the basic principle of the electrical circuit (AC) circuit and electrical networking. 5. Acquire the basic theoretical as well as experimental skill on electrical networking.
		PHYSICS LAB-C III : ELECTRICITY AND MAGNETISM LAB	After completion of this course the students will gain practical knowledge of Electricity and Magnetism.
		Course code: PHYSICS–C IV Course title: WAVES AND OPTICS	At the completion of this course, a student will be able to ▪ Learn the basics of wave motion. ▪ Know about the behavior of light due to its wave nature. ▪ Identify and understand different phenomena due to the interaction of light with light and • matter. 4. Analyze some of the fundamental laws and principles of light which is used in many important optical instruments.
		PHYSICS - C IV: WAVES AND OPTICS (LAB)	After completion of this course the students will gain practical knowledge of Waves and Optics.
3	B.A 3rd Sem	ourseCode : PHYSICS-C-V Course Title : MATHEMATICAL PHYSICS – II	At the completion of this course, a student will be able to ▪ Write a problem in Physics (slightly more advanced than those in Mathematical Physics I) in the language of Mathematics. ▪ Identify a range of diverse mathematical techniques to formulate and solve a problem in basic Physics.

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			▪ Analyze some of the useful mathematical methods. ▪ Apply the knowledge and understanding of these mathematical methods to solve problems in a number of fundamental topics in Physics. • 5. Construct a problem in Physics computationally.
		PHYSICS -C V : MATHEMATICAL PHYSICS-II (LAB)	After completion of this course the students will gain practical knowledge of Mathematical Physics.
		Course Code: PHYSICS C-VI Course Title: THERMAL PHYSICS	At the completion of this course, a student will be able to ▪ Develop knowledge on the classical laws of thermodynamics and their application ▪ Use the knowledge of thermodynamics in various applications in allied fields like Materials science, Condensed matter Physics, Atmospheric Physics, Solar Physics, etc. ▪ Probe questions in varied fields of Physics, chemistry and biology based on principles of Thermal Physics.4. Use the concept of thermodynamics in real world experiences • 5. Develop critical and analytical thinking of the student on thermodynamics and allied disciplines
		PHYSICS C VI : THERMAL PHYSICS (LAB)	After completion of this course the students will gain practical knowledge about Thermal Physics.
		Course Code: PHYSICS-C-VII Course Title: DIGITAL SYSTEMS AND APPLICATIONS	At the completion of this course, a student will be able to : ▪ Know about the basic laboratory equipment electronics. ▪ Understand basic digital electronics concepts and devices. • 3. Analyze digital circuits.
		PHYSICS PRACTICAL-C VII LAB	After completion of this course the students will gain practical knowledge of : • To measure (a) Voltage, and (b) Time period of a periodic waveform using CRO. • To test a Diode and Transistor using a Multimeter. • To design a switch (NOT gate) using a transistor. • To verify and design AND, OR, NOT and XOR gates using NAND gates. • To design a combinational logic system for a specified Truth Table. • To convert a Boolean expression into logic

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			circuit and design it using logic gate ICs. • To minimize a given logic circuit. • Half Adder, Full Adder and 4-bit binary Adder. • Half Subtractor, Full Subtractor, Adder-Subtractor using Full Adder I.C. • To build Flip-Flop (RS, Clocked RS, D-type and JK) circuits using NAND gates. • To build JK Master-slave flip-flop using Flip-Flop ICs • To build a 4-bit Counter using D-type/JK Flip-Flop ICs and study timing diagram. • To make a 4-bit Shift Register (serial and parallel) using D-type/JK Flip-Flop,IC • To design an astable multivibrator of given specifications using 555 Timer. • To design a monostable multivibrator of given specifications using 555 Timer. • Write the following programs using 8085 Microprocessor a. Addition and subtraction of numbers using direct addressing mode b. Addition and subtraction of numbers using indirect addressing mode c. Multiplication by repeated addition. d. Division by repeated subtraction. e. Handling of 16-bit Numbers. f. Use of CALL and RETURN Instruction. g. Block data handling. h. Other programs (e.g. Parity Check, using interrupts, etc.).
4	B.A 4th Sem	Course Code: PHYSICS-C-VIII Course Title: MATHEMATICAL PHYSICS-III	At the completion of this course, a student will be able to ▪ Write a problem in Physics (slightly more advanced than those in Mathematical Physics I and II) in the language of mathematics. ▪ Identify a range of diverse mathematical techniques/ideas to formulate, simplify and solve some problems in Physics. ▪ Analyze some of the useful mathematical ideas and techniques. ▪ Apply the knowledge and understanding of these mathematical methods to solve problems in a number of fundamental topics in Physics. ▪ Construct a problem in Physics computationally and use simulations to design an experiment.
		PHYSICS C VIII:	After completion of this course the students will

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		MATHEMATICAL PHYSICS-III (LAB)	gain practical knowledge of Mathematical Physics.
		Course Code: PHYSICS-C-IX Course Title: ELEMENTS OF MODERN PHYSICS	At the completion of this course, a student will be able to ▪ Understand the theoretical basis for the understanding of quantum Physics as the basis for dealing with microscopic phenomena. ▪ Apply concepts of 20th Century Modern Physics to deduce the structure of atoms. ▪ Explain the wave-particle duality of the photon. ▪ Analyze the structure of matter at its most fundamental. ▪ 5. Develop insight into the key principles and applications of Nuclear Physics
5	B.A 5th Sem	PHYSICS -C IX : ELEMENTS OF MODERN PHYSICS (LAB)	After completion of this course the students will gain practical knowledge about- ▪ Measurement of Planck's constant using black body radiation and photo-detector ▪ Photo-electric effect: photo current versus intensity and wavelength of light; maximum energy of photo-electrons versus frequency of light ▪ To determine work function of material of filament of directly heated vacuum diode. ▪ To determine the Planck's constant using LEDs of at least 4 different colours. ▪ To determine the wavelength of H-alpha emission line of Hydrogen atom. ▪ To determine the ionization potential of mercury. ▪ To determine the absorption lines in the rotational spectrum of Iodine vapour. ▪ To determine the value of e/m by (a) Magnetic focusing or (b) Bar magnet. ▪ To setup the Millikan oil drop apparatus and determine the charge of an electron. ▪ To show the tunneling effect in tunnel diode using I-V characteristics. ▪ To determine the wavelength of laser source using diffraction of single slit. ▪ To determine the wavelength of laser source using diffraction of double slits. ▪ To determine (1) wavelength and (2) angular spread of He-Ne laser using plane diffraction grating.
		Course Code: PHYSICS-C-X Course Title: ANALOG SYSTEMS AND	At the completion of this course, a student will be able to • Know about the basics of semiconductor PN junction, its various types and its

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		APPLICATIONS	application to different electronic circuits. • Understand bipolar junction transistor and its applications as amplifier and oscillators. • Familiarize with operational amplifiers, its applications and analysis. • Develop knowledge about analog to digital and digital to analog conversion techniques
		PHYSICS C X : ANALOG SYSTEMS AND APPLICATIONS (LAB)	• To study V-I characteristics of PN junction diode, and Light emitting diode. • To study the V-I characteristics of a Zener diode and its use as voltage regulator. • Study of V-I & power curves of solar cells, and find maximum power point & efficiency. • To study the characteristics of a Bipolar Junction Transistor in CE configuration. • To study the various biasing configurations of BJT for normal class A operation. • To design a CE transistor amplifier of a given gain (mid-gain) using voltage divider bias. • To study the frequency response of voltage gain of a RC-coupled transistor amplifier. • To design a Wien bridge oscillator for given frequency using an op-amp. • To design a phase shift oscillator of given specifications using BJT. • To study the Colpitt`s oscillator. • To design a digital to analog converter (DAC) of given specifications. • To study the analog to digital convertor (ADC) IC. • To design an inverting amplifier using Op-amp (741,351) for dc voltage of given gain • To design inverting amplifier using Op-amp (741,351) and study its frequency response • To design non-inverting amplifier using Op-amp (741,351) & study its frequency response • To study the zero-crossing detector and comparator • To add two dc voltages using Op-amp in

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			inverting and non-inverting mode • To design a precision Differential amplifier of given I/O specification using Op-amp. • To investigate the use of an op-amp as an Integrator. • To investigate the use of an op-amp as a Differentiator. • To design a circuit to simulate the solution of a 1st/2nd order differential equation.
		Course Code: PHYSICS-C-XI Course Title: QUANTUM MECHANICS AND APPLICATIONS	At the completion of this course, a student will be able to • Know about the development of modern Physics and the theoretical formulation of quantum mechanics. • Know the applications of quantum mechanics in solving physical problems.
		PHYSICS -C XI: QUANTUM MECHANICS AND APPLICATIONS (LAB)	After completion of this course the students will gain practical knowledge about Quantum Mechanics and Applications.
		Course Code: PHYSICS-C-XII Course Title: SOLID STATE PHYSICS	At the completion of this course, a student will be able to • Familiarize with fundamentals of Solid State Physics. • Know about the structural, electronic and lattice vibration dependent behavior of solids. • Learn the basic concepts in hands on mode through laboratory experiments associated with the course.
		PHYSICS C XII: SOLID STATE PHYSICS (LAB)	After completion of this course the students will gain practical knowledge of • Measurement of susceptibility of paramagnetic solution (Quinck`s Tube Method) • To measure the Magnetic susceptibility of Solids. • To determine the Coupling Coefficient of a Piezoelectric crystal. • To measure the Dielectric Constant of a dielectric Materials with frequency • To determine the complex dielectric constant and plasma frequency of metal using Surface Plasmon resonance (SPR) • To determine the refractive index of a dielectric layer using SPR • To study the PE Hysteresis loop of a

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			Ferroelectric Crystal. • To draw the BH curve of Fe using Solenoid & determine energy loss from Hysteresis. • To measure the resistivity of a semiconductor (Ge) with temperature by four-probe method (room temperature to 150 oC) and to determine its band gap. • To determine the Hall coefficient of a semiconductor sample.
		Course code: PHYSICS DSE -I Course title: CLASSICAL DYNAMICS	After completing the course, a student will be able to ▪ Understand the underlying facts in the development of classical mechanics and the advantages of its formulation over Newtonian mechanics. ▪ Describe mechanics of a system in terms of equation of motion. ▪ Understand Lagrangian formulation and Hamiltonian formulation of mechanics and their applications in mechanical problems. ▪ Study the theoretical analysis of systems oscillating with small amplitudes. • Observe the peculiar phenomena when transformed from Newtonian relativity to special relativity and to understand the concept of space-time.
		Course code: PHYSICS DSE -2 Course title: PHYSICS OF DEVICES AND INSTRUMENTS	After completing this course, a student will be able to : ▪ Know about various devices like UJT, FET, MOSFET, CMOS etc. and its application to different electronic circuits. ▪ Design rectifiers, passive and active filters, multivibrators etc. ▪ Familiarize with the IC fabrication techniques. • Learn about digital data communication standards and also about communication systems.
		PRACTICAL- DSE 2 : PHYSICS OF DEVICES AND INSTRUMENTS (LAB)	After completion of this course the students will gain practical knowledge about Physics of Devices and Instruments.
		Course code: PHYSICS DSE -2 Course title: ASTRONOMY AND ASTROPHYSICS	Astrophysics (and Astronomy) is the most fascinating and rapidly growing field of Physics at present. In fact Astronomy is the oldest science among all physical sciences. Although in recent years due to sophistication of theoretical as well as observational techniques this field of Physics grows unprecedentedly, still there are lots of regions of this field which

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			are remained unexplored till now. Thus the objectives of offering this course are to ▪ Introduce the fundamental concepts of Astrophysics to the interested students. • Motivate students to pursue the further study in future in these challenging, fascinating and important fields of Physics.
		Course code: PHYSICS DSE -2Course title: PHYSICS OF EARTH	After the completion of the course, a student will be able to ▪ Acquire knowledge on origin and evolution of the Earth and Universe ▪ Acquire knowledge on structure, composition and dynamics of the Earth from crust up to space. ▪ Understand the interaction among different components of the Earth. ▪ Get familiar with the weather and climate systems, climate change. • Increase people awareness of the scientific process of the Earth and its role in the exploration of the Universe.
6	B.A 6th Sem	Course Code: PHYSICS-C-XIII Course Title: ELECTROMAGNETIC THEORY	At the completion of this course, a student will be able to ▪ Understand the physical and mathematical principles to provide in-depth analysis of the behavior of electricity and magnetism in matter. ▪ Apply Maxwell's equations to explain the properties of the electromagnetic wave and its interaction with matter. • Analyze the principles and processes related to polarization, interference, and diffraction along with their applications to the development of wave-guide and optical fibers.
		PHYSICS -C XIII: ELECTROMAGNETIC THEORY (LAB)	After completion of this course the students will gain practical knowledge of ▪ To verify the law of Malus for plane polarized light. ▪ To determine the specific rotation of sugar solution using Polarimeter. ▪ To analyze elliptically polarized Light by using a Babinet's compensator. ▪ To study dependence of radiation on angle for a simple Dipole antenna. ▪ To determine the wavelength and velocity of ultrasonic waves in a liquid (Kerosene Oil, Xylene, etc.) by studying the diffraction through ultrasonic grating. ▪ To study the reflection, refraction of

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			microwaves ▪ To study Polarization and double slit interference in microwaves. ▪ To determine the refractive index of liquid by total internal reflection using Wollaston's air-film. ▪ To determine the refractive Index of (1) glass and (2) a liquid by total internal reflection using a Gaussian eyepiece. ▪ To study the polarization of light by reflection and determine the polarizing angle for air-glass interface. ▪ To verify the Stefan`s law of radiation and to determine Stefan's constant. • To determine the Boltzmann constant using V-I characteristics of PN junction diode.
		Course Code: PHYSICS-C-XIV Course Title: STATISTICAL MECHANICS	The Statistical Mechanics is one of the most important branches of Physics which is required to understand the properties of matter in bulk on the basis of the dynamical behaviors of its microscopic constituents. As such the objectives of this course are to ▪ Introduce the basic concepts of Statistical Mechanics so that students will be able to cope-up with higher level of such course in future. ▪ Develop the critically thinking ability of students to understand the diverse physical phenomena. • Develop the interest and ability among students to solved challenging physical problems by the application of techniques of Statistical Mechanics in future.
		PHYSICS -C XIV: STATISTICAL MECHANICS (LAB)	After completion of this course the students will gain practical knowledge about Statistical Mechanics.
		Course code: PHYSICS DSE -3 Course title: NUCLEAR AND PARTICLE PHYSICS	After the end of the course, a student will be able to ▪ Understand various concepts in Nuclear Physics. • Emphasize on the existing connections with other domains of Physics, in particular Quantum Mechanics, Mathematical Physics and Particle Physics.
		Course code: PHYSICS DSE -4 Course title: NANO MATERIALS AND APPLICATION	The aim of the course is to ▪ Provide a systematic coverage and insight into the promising area of nano materials in order to facilitate the understanding of the nature and prospects for the field. ▪ Provide information about various

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			synthesis and characterization techniques of nano materials. ▪ Discuss optical and electronic transport properties of nano materials. • Discuss applications of nano materials.
		PRACTICALS-DSE 4 : NANO MATERIALS AND APPLICATIONS (LAB)	After completion of this course the students will gain practical knowledge of • Synthesis of metal nano particles by chemical route. • Synthesis of semiconductor nano particles. • Surface Plasmon study of metal nano particles by UV-Visible spectrophotometer. • XRD pattern of nano materials and estimation of particle size. • To study the effect of size on color of nano materials. • To prepare composite of CNTs with other materials. • Growth of quantum dots by thermal evaporation. • Prepare a disc of ceramic of a compound using ball milling, pressing and sintering, and study its XRD. • Fabricate a thin film of nanoparticles by spin coating (or chemical route) and study transmittance spectra in UV-Visible region. • Prepare a thin film capacitor and measure capacitance as a function of temperature or frequency. • Fabricate a PN diode by diffusing Al over the surface of N-type Si and study its V-I characteristic.
		Course code: PHYSICS DSE -4 Course title: EXPERIMENTAL TECHNIQUES	After completing this course, a student will be able to ▪ Enhance experimental knowledge. ▪ Develop the theoretical as well as experimental knowledge of different instruments and instrumentation. • Enhance the knowledge of some measurement techniques and data and error analysis technique.
		PRACTICAL- DSE 4 : EXPERIMENTAL TECHNIQUES (LAB)	After completion of this course the students will gain practical knowledge of • Determine output characteristics of a LVDT & measure displacement using LVDT • Measurement of Strain using Strain Gauge. • Measurement of level using capacitive transducer.

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			• To study the characteristics of a Thermostat and determine its parameters • Study of distance measurement using ultrasonic transducer. • Calibrate Semiconductor type temperature sensor (AD590, LM35, or LM75) • To measure the change in temperature of ambient using Resistance Temperature Device (RTD). • Create vacuum in a small chamber using a mechanical (rotary) pump and measure the chamber pressure using a pressure gauge. • Comparison of pickup of noise in cables of different types (co-axial, single shielded, double shielded, without shielding) of 2m length, understanding of importance of grounding using function generator of mV level & an oscilloscope. • To design and study the Sample and Hold Circuit. • Design and analyze the Clippers and Clampers circuits using junction diode • To plot the frequency response of a microphone. • To measure Q of a coil and influence of frequency, using a Q-meter.

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ZOOLOGY

SL. NO.	SEMESTER	PAPER/COURSE	EXPECTED LEARNERS' OUTCOME
Honours Course-I(CBCS)			
1	B.Sc. 1st Sem	Course Code: ZC101T CORE COURSE I: NON-CHORDATES I: PROTISTS TO PSEUDOCOELOMATES	After completion of this course the students will able to know about various forms of protozoa and worms; their classification and structural anatomy
		Course Code: ZC101P NON-CHORDATES I: PROTISTS TO PSEUDOCOELOMATES	After completion of this course the students will gain practical knowledge about about various forms of protozoa and worms; their classification and structural anatomy
		Course Code: ZC102T CORE COURSE II: PRINCIPLES OF ECOLOGY	After completion of this course the students will learn about fundamentals of ecology and impacts of ecological factors on living organisms.
		Course Code: ZC102P PRINCIPLES OF ECOLOGY	After completion of this course the students will gain practical knowledge about fundamentals of ecology and impacts of ecological factors on living organisms.

2	B.Sc 2nd Sem	Course Code: ZC203T CORE COURSE III NON-CHORDATES II: COELOMATES	The objective of the course is to expose the students to various forms of coelomates
		Course Code: HISHC 104 Social Formations and Cultural Patterns of the Medieval World	After completion of this course the students will learn various forms of coelomates
		Course Code: ZC203P NON-CHORDATES II: COELOMATES	After completion of this course the students will gain practical knowledge in various forms of coelomates
		Course Code: ZC204T CORE COURSE IV CELL BIOLOGY	After completion of this course the students will learn about structure and function of a cell as the fundamental unit of life
		Course Code: ZC204P CELL BIOLOGY	After completion of this course the students will gain practical knowledge on structure and function of a cell as the fundamental unit of life
3	B.Sc 3rd Sem	Course Code: ZC305T CORE COURSE V: DIVERSITY OF CHORDATA	After completion of this course the students will learn various forms of chordates, their classification and structural anatomy.
		Course Code: ZC305P DIVERSITY OF CHORDATA	After completion of this course the students will gain practical knowledge on various forms of chordates, their classification and structural anatomy.
		Course Code: ZC306T CORE COURSE VI: ANIMAL PHYSIOLOGY: CONTROLLING AND COORDINATING SYSTEMS	After completion of this course the students will learn about foundation for understanding the complexities of the coordination system of animal body
		Course Code: ZC306P ANIMAL PHYSIOLOGY: CONTROLLING AND COORDINATING SYSTEMS	After completion of this course the students will gain practical knowledge on foundation for understanding the complexities of the coordination system of animal body
		Course Code: ZC307T CORE COURSE VII: FUNDAMENTALS OF BIOCHEMISTRY	After completion of this course the students will able to know about the biomolecules of living organisms, their interactions for perpetuation of life
		Course Code: ZC307P FUNDAMENTALS OF BIOCHEMISTRY	After completion of this course the students will gain practical knowledge on biomolecules of living organisms, their interactions for perpetuation of life
4	B.Sc. 4th Sem	II Course Code: ZC408T CORE COURSE VIII: COMPARATIVE ANATOMY OF VERTEBRATES	After completion of this course the students will able to know about comparative anatomy of vertebrates.
		Course Code: ZC408P COMPARATIVE ANATOMY OF VERTEBRATES	After completion of this course the students will gain practical knowledge about comparative anatomy of vertebrates

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		Course Code: ZC409T CORE COURSE IX: ANIMAL PHYSIOLOGY: LIFE SUSTAINING SYSTEMS	After completion of this course the students will learn about Animal Physiology : Life Sustaining Systems.
		Course Code: ZC409P ANIMAL PHYSIOLOGY: LIFE SUSTAINING SYSTEMS	After completion of this course the students will gain practical knowledge on Animal Physiology : Life Sustaining Systems.
		Course Code: ZC410T CORE COURSE X: BIOCHEMISTRY OF METABOLIC PROCESSES	After completion of this course the students will able to know about Biochemistry of Metabolic Processes.
		Course Code: ZC410P BIOCHEMISTRY OF METABOLIC PROCESS	After completion of this course the students will gain practical knowledge about Biochemistry of Metabolic Processes.
5	B.Sc. 5th Sem	Course Code: ZC511T CORE COURSE XI: MOLECULAR BIOLOGY	After completion of this course the students will learn about Core Course XI : Molecular Biology.
		Course Code: ZC511P MOLECULAR BIOLOGY	After completion of this course the students will gain practical knowledge about Core Course XI : Molecular Biology.
		Course Code: ZC512T CORE COURSE XII: PRINCIPLES OF GENETICS	After completion of this course the students will learn about Principles of Genetics.
		Course Code: ZC512P PRINCIPLES OF GENETICS	After completion of this course the students will gain practical knowledge about Principles of Genetics.
		Course Code: ZD501T DSE Course I: ANIMAL BEHAVIOUR AND CHRONOBIOLOGY	After completion of this course the students will learn about Animal Behaviour and Chronobiology.
		Course Code: ZD501P ANIMAL BEHAVIOUR AND CHRONOBIOLOGY	After completion of this course the students will gain practical knowledge about Animal Behaviour and Chronobiology.
		Course Code: ZD503T DSE Course III: ENDOCRINOLOGY	After completion of this course the students will able to know about Endocrinology.
		Course Code: ZD503P ENDOCRINOLOGY	After completion of this course the students will gain practical knowledge about Endocrinology.
6	B.Sc. 6th Sem	Course Code: ZC613T CORE COURSE XIII: DEVELOPMENTAL BIOLOGY	After completion of this course the students will learn about Developmental Biology.
		Course Code: ZC613P DEVELOPMENTAL	After completion of this course the students will gain practical knowledge about Developmental Biology.

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		BIOLOGY	
		Course Code: ZC614T CORE COURSE XIV: EVOLUTIONARY BIOLOGY	After completion of this course the students will learn about Evolutionary Biology.
		Course Code: ZC614P EVOLUTIONARY BIOLOGY	After completion of this course the students will gain practical knowledge about Evolutionary Biology
		Course Code: ZD606T DSE Course VI: ANIMAL BIOTECHNOLOGY	After completion of this course the students will learn about Animal Biotechnology.
		Course Code: ZD606P ANIMAL BIOTECHNOLOGY	After completion of this course the students will gain practical knowledge about Animal Biotechnology.
		Course Code: ZD607T DSE Course - VII: FISH AND FISHERIES	After completion of this course the students will able to know about Fish and Fisheries
		Course Code: ZD607P FISH AND FISHERIES	After completion of this course the students will gain practical knowledge about Fish and Fisheries

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Principal
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