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COURSE OUTCOME
CBCS

POs are attained through programme specific Core Courses. These course-specific outcomes are called Course Outcomes. Course Outcomes (Cos) are narrower statements that describe what students are expected to know, and be able to do at the end of each course. The COs are statements that relate to the skills, knowledge, and behaviour the students acquire as they go through a specific course within a programme. The course outcomes are statements which are course-specific. They cover the core course related outcomes, and contribute to the overall attainment of the Programme Outcomes. Each course is designed to meet (about 5–6) Course Outcomes. The Course Outcomes are stated in such a way that they can be actually measured. COs are set by the institution, by consulting with the department heads, faculty, students and other stakeholders

BENGALI

Semester	Core Course	Content of CU Syllabus	Course Outcome(CO)
1st	BNG-A-CC-1	বাংলা সাহিত্যের ইতিহাস (১৮০০ খ্রিঃ পর্যন্ত) **মডিউল – ১** বাংলা ভাষা ও সাহিত্যের ইতিহাস সম্পর্কিত ধারণা বাংলা সাহিত্যের যুগবিভাগ- প্রসঙ্গ ও বিতর্ক বাংলা ভাষা ও সাহিত্যের আদি পর্বের গতিপ্রকৃতি ও নিদর্শন সমূহ চর্যাপদ শ্রীকৃষ্ণকীর্তন **মডিউল – ২** অনুবাদ সাহিত্য- ভাগবত, রামায়ণ ও মহাভারত বৈষ্ণব পদাবলী- বিদ্যাপতি, চণ্ডীদাস, জ্ঞানদাস, গোবিন্দদাস চৈতন্য-চরিত সাহিত্য- চৈতন্যভাগবত, শ্রীচৈতন্যচরিতামৃত **মডিউল – ৩** মঙ্গলকাব্যের উদ্ভব ও বিকাশ মনসামঙ্গল, ধর্মমঙ্গল, চণ্ডীমঙ্গল ও অন্নদামঙ্গল প্রণয়োপাখ্যান- শাহ মহম্মদ সগীর, দৌলত কাজী ও আলাওল শাক্ত পদাবলী- রামপ্রসাদ সেন ও কমলাকান্ত ভট্টাচার্য	এখানে শিক্ষার্থীদের বাংলা ভাষা ও সাহিত্যের যুগবিভাগ ও এবিষয়ে পণ্ডিতদের মতপার্থক্য সম্পর্কে একটা সংক্ষিপ্ত ধারণা দেওয়া হবে। বিভিন্ন যুগের সমাজ-ইতিহাস ও সাহিত্যের সাথে পরিচিতি ঘটবে। বিশেষত বাংলা সাহিত্যের প্রাচীন যুগ তথা আদি-মধ্যযুগ ও অন্ত-মধ্যযুগের সাহিত্যধারার যে বৈচিত্র্য সে সম্পর্কে শিক্ষার্থীদের একটা ধারণা তৈরি হবে।
	BNG-A-CC2	বর্ণনামূলক ভাষাবিজ্ঞান ও বাংলাভাষা **মডিউল – ১** ধ্বনি, বর্ণ, অক্ষর – সংজ্ঞার্থ ও পারস্পরিক সম্পর্ক উচ্চারণস্থান ও উচ্চারণপ্রকৃতি অনুযায়ী বাংলা স্বর ও ব্যঞ্জনধ্বনিগুলির পরিচয় মৌলিক স্বরধ্বনি ও স্বনিমের ধারণা বাংলা ভাষার শব্দ ভাণ্ডার **মডিউল – ২** শব্দ বিবর্তন, বাংলা ভাষার ধ্বনি পরিবর্তনের রীতি ও প্রকৃতি বাংলা শব্দার্থ পরিবর্তনের ধারা, বাংলা ভাষার উপভাষা **মডিউল – ৩** বাংলা ভাষার রূপতাত্ত্বিক আলোচনা- বচন, লিঙ্গ, পুরুষ, সমাস, বিভক্তি, কারক, প্রত্যয়, ক্রিয়ার কাল ও অব্যয়	বাংলা ভাষার রূপতাত্ত্বিক ও ধ্বনিতাত্ত্বিক বৈশিষ্ট্য, ব্যাকরণের বিভিন্ন বিষয় সম্পর্কে শিক্ষার্থীরা জ্ঞানলাভ করবে এই অংশে। বাংলা বিভিন্ন উপভাষা, শব্দ ভাণ্ডার ও বাংলা শব্দের বিবর্তন সম্পর্কে ধারণা লাভের ক্ষেত্রে ছাত্রছাত্রীদের প্রত্যক্ষ অভিজ্ঞতা সহায়ক হয়ে উঠবে। ভাষা-সাহিত্যের সাথে বাস্তব জীবনের যোগসূত্রটি অনুধাবন করতে শিখবে তারা।
	AECC-1	**মডিউল – ১ : প্রবন্ধ** স্বদেশী সমাজ- রবীন্দ্রনাথ ঠাকুর বাঙ্গালা ভাষা- স্বামী বিবেকানন্দ স্ত্রী জাতির অবনতি- বেগম রোকেয়া অপবিজ্ঞান- রাজশেখর বসু **মডিউল – ২ : ছোটগল্প** রবীন্দ্রনাথ ঠাকুর লিখিত পোস্টমাষ্টার, ছুটি, জীবিত ও মৃত এবং বলাই	এই স্তরে শিক্ষার্থীরা বিভিন্ন প্রবন্ধ পাঠের মাধ্যমে স্বাধীনতাপূর্ব বাংলার সমাজ, ইতিহাস, নারীজাতির অবস্থান ও বাংলা ভাষা সম্পর্কে ধারণা লাভ করবে। বিশ শতকের শুরুতে বাংলা

		মডিউল – ৩ : কবিতা নৈবেদ্য – রবীন্দ্রনাথ ঠাকুর (৩০, ৬৪, ৬৫, ৭০, ৭২, ৯২ সংখ্যক কবিতা) **মডিউল – ৪ : পরিভাষা**	তথা সমগ্র ভারতে যে ইংরেজ বিরোধী অগ্নিগর্ভ পরিস্থিতি ও সাম্রাজ্যবাদী শাসকের হিংস্রতা সম্পর্কে রবীন্দ্রনাথ ঠাকুরের প্রবন্ধ ও কবিতাগুলি পরিচয় ঘটাবে তাদের। বিশেষ করে পাঠ্য ছোটগল্পগুলি একদিকে যেমন বাংলা ছোটগল্পের ইতিহাসের উপর আলোকপাত করবে তেমনই রবীন্দ্রনাথের জীবনদৃষ্টি ও চিন্তাজগতের সাথে পরিচিত হওয়ার সুযোগ ঘটবে শিক্ষার্থীদের।
2nd	BNG-A-CC-3	বাংলা সাহিত্যের ইতিহাস উনিশ শতক **মডিউল – ১ : কাব্য-কবিতা ও নাটক-প্রহসন** **ক.** বাংলা কাব্যে আধুনিকতার সঞ্চার- প্রেক্ষাপট ও স্বরূপ ঈশ্বরগুপ্ত, রঙ্গলাল বন্দ্যোপাধ্যায় মধুসূদন দত্ত, হেমচন্দ্র বন্দ্যোপাধ্যায়, নবীনচন্দ্র সেন বিহারীলাল চক্রবর্তী, রবীন্দ্রনাথ ঠাকুর, গিরীন্দ্রমোহিনী দাসী **খ.** আধুনিক বাংলা নাটকের উদ্ভব ও বিকাশ মধুসূদন দত্ত, দীনবন্ধু মিত্র অমৃতলাল বসু, গিরিশচন্দ্র ঘোষ, রবীন্দ্রনাথ ঠাকুর **মডিউল – ২ : কথাসাহিত্য ও সাময়িক পত্র** **ক.** নকশা-কথাগদ্য থেকে উপন্যাস- বাংলা উপন্যাসের উদ্ভব ও বিকাশ ভবানীচরণ বন্দ্যোপাধ্যায়, প্যারীচাঁদ মিত্র, কালীপ্রসন্ন সিংহ বঙ্কিমচন্দ্র চট্টোপাধ্যায়, তারকনাথ গঙ্গোপাধ্যায় রমেশচন্দ্র দত্ত, স্বর্ণকুমারী দেবী বাংলা ছোটগল্পের উদ্ভবের প্রেক্ষাপট ও রবীন্দ্রনাথ **খ.** বাংলা সাময়িক পত্রের উদ্ভব ও বিকাশ সংবাদ প্রভাকর, তত্ত্ববোধিনী পত্রিকা, বিবিধার্থ সংগ্রহ, মাসিক পত্রিকা, সোমপ্রকাশ, বঙ্গদর্শন, ভারতী	উনিশ শতকের ঔপনিবেশিক আধুনিকতা আমাদের চিন্তা-চেতনা ও সাহিত্য জগতকে কতটা প্রভাবিত করেছিল সে সম্পর্কে পাঠক্রমের এই স্তরে ছাত্রছাত্রীরা একটা ধারণা লাভ করতে পারবে। কাব্য-কবিতা, নাটক, উপন্যাস, ছোটগল্পের মতো গুরুত্বপূর্ণ সাহিত্যধারার আত্মপ্রকাশের কাল ও তার পূর্ব প্রস্তুতির প্রেক্ষাপটের সাথে পরিচয় ঘটবে তাদের। বাংলা গদ্যের চর্চা ও বিকাশে বিভিন্ন প্রতিষ্ঠান ও মনীষীদের অবদান, উনিশ শতকের বাংলা সাময়িক পত্র বিষয়েও জ্ঞান লাভ করবে তারা।

		মডিউল – ৩ : গদ্য ও প্রবন্ধ বাংলা সাহিত্যে গদ্য রীতি গৃহীত হওয়ার পটভূমি বাংলা গদ্যের চর্চা ও বিকাশে শ্রীরামপুর মিশন ও ফোর্ট উইলিয়াম কলেজের ভূমিকা বাংলা গদ্যের বিকাশে বিভিন্ন সাময়িক পত্রের অবদান বাংলা গদ্য ও প্রবন্ধ সাহিত্যের বিকাশে রামমোহন রায়, ঈশ্বরচন্দ্র বিদ্যাসাগর, অক্ষয়কুমার দত্ত, প্যারীচাঁদ মিত্র, কালীপ্রসন্ন সিংহ, বঙ্কিমচন্দ্র চট্টোপাধ্যায়, মীর মশাররফ হোসেন ও বিবেকানন্দের অবদান	
	BNG-A-CC-4	বাংলা সাহিত্য : প্রবেশক পাঠ **মডিউল – ১ : কবিতা** লুই পা- চর্যাপদ ১ বড়ু চণ্ডীদাস- কে না বাঁশী বাএ বড়ায়ি কালিনী নই কুলে বিদ্যাপতি- এ সখি হামারি দুখের নাহি ওর চণ্ডীদাস- সই কেবা শুনাইল জ্ঞানদাস- সুখের লাগিয়া এ ঘর বাঁধিনু রামপ্রসাদ সেন- মা নিম খাওয়ালে চিনি বলে লালন ফকির- সব লোকে কয় লালন কি জাত মধুসূদন দত্ত- হে বঙ্গ ভাণ্ডারে তব রবীন্দ্রনাথ ঠাকুর- বলাকা কাজী নজরুল ইসলাম- কাণ্ডারী হুঁশিয়ার জীবনানন্দ দাশ- সুচেতনা নীরেন্দ্রনাথ চক্রবর্তী- দেশ দেখাচ্ছ অন্ধকারে শামসুর রহমান- আমার ভালবাসা শঙ্খ ঘোষ- বাবরের প্রার্থনা শক্তি চট্টোপাধ্যায়- অবনী বাড়ি আছো জয় গোস্বামী- রয় যে কাঙাল শূন্য হাতে **মডিউল – ২ : কথাসাহিত্য** **ক.** বঙ্কিমচন্দ্র চট্টোপাধ্যায়- কপালকুণ্ডলা **খ.** শরৎচন্দ্র চট্টোপাধ্যায়- অভাগীর স্বর্গ পরশুরাম- লম্বকর্ণ সতীনাথ ভাদুড়ী- চরণদাস এম. এল. এ সমরেশ বসু- আদাব **মডিউল – ৩ : নাটক ও গদ্য প্রবন্ধ** **ক.** দীনবন্ধু মিত্র- নীলদর্পন **খ.** রবীন্দ্রনাথ ঠাকুর- বাজেকথা প্রমথ চৌধুরী- বইপড়া অবনীন্দ্রনাথ ঠাকুর- সৌন্দর্যের সন্ধান সোফিয়া খাতুন- উনবিংশ শতাব্দীর নারীবিপ্লব	বাংলা ভাষা ও সাহিত্য সম্পর্কে প্রাথমিক ধারণা লাভের পর এখানে শিক্ষার্থীরা প্রাচীন কাল থেকে আধুনিক কাল পর্যন্ত লিখিত বিভিন্ন কবিতা পাঠের মাধ্যমে বাংলা কবিতার গতিপ্রকৃতি সম্পর্কে একটি ধারণা লাভ করবে। উপন্যাস, নাটক ও ভিন্ন ভিন্ন স্বাদের ছোটগল্পের মধ্য দিয়ে সাহিত্যের রসাস্বাদন আরো বেশি আনন্দদায়ক হয়ে উঠবে। ছাত্রছাত্রীদের চিন্তা-ভাবনার জগৎটি আরো সমৃদ্ধ হবে প্রবন্ধ পাঠে।

3rd	BNG-A-CC-5	বাংলা সাহিত্যের ইতিহাস (বিংশ শতক) **মডিউল – ১ : কাব্য-কবিতা ও নাটক** **ক.** রবীন্দ্রনাথ ঠাকুর সত্যেন্দ্রনাথ দত্ত, যতীন্দ্রনাথ সেনগুপ্ত, মোহিতলাল মজুমদার, কাজী নজরুল ইসলাম জীবনানন্দ দাশ, সুধীন্দ্রনাথ দত্ত, বুদ্ধদেব বসু, বিষ্ণু দে সমর সেন, সুভাষ মুখোপাধ্যায়, সুকান্ত ভট্টাচার্য, বীরেন্দ্র চট্টোপাধ্যায় সুনীল গঙ্গোপাধ্যায়, শক্তি চট্টোপাধ্যায়, কবিতা সিংহ **খ.** রবীন্দ্রনাথ ঠাকুর, দ্বিজেন্দ্রলাল রায় বিজন ভট্টাচার্য, তুলসী লাহিড়ী মন্মথ রায়, উৎপল দত্ত, বাদল সরকার **মডিউল – ২ : কথাসাহিত্য** রবীন্দ্রনাথ ঠাকুর শরৎচন্দ্র চট্টোপাধ্যায়(ঔপন্যাসিক) জগদীশ গুপ্ত (গল্পকার),পরশুরাম (গল্পকার) প্রেমেন্দ্র মিত্র (গল্পকার), মানিক বন্দ্যোপাধ্যায় বিভূতিভূষণ বন্দ্যোপাধ্যায়, তারাশঙ্কর বন্দ্যোপাধ্যায় সতীনাথ ভাদুড়ী, সুবোধ ঘোষ(গল্পকার) সোমেন চন্দ(গল্পকার), সমরেশ বসু(গল্পকার) আশাপূর্ণা দেবী, সৈয়দ ওয়ালিউল্লাহ **মডিউল – ৩ : গদ্য-প্রবন্ধ ও সাময়িকপত্র** **ক.** রবীন্দ্রনাথ ঠাকুর রামেন্দ্রসুন্দর ত্রিবেদী প্রমথ চৌধুরী মোহিতলাল মজুমদার বুদ্ধদেব বসু গোপাল হালদার সৈয়দ মুজতবা আলি **খ.** ভারতী, সবুজপত্র, নারায়ণ	এই কোর্সে শিক্ষার্থীদের বিশ শতকে রবীন্দ্র সাহিত্য ও একইসাথে বাংলা কাব্য-কবিতা, কথাসাহিত্য নাটক, গদ্য-প্রবন্ধ ও সাময়িকপত্র সম্পর্কে জ্ঞানার্জন বাংলা সাহিত্য-ধারণাটিকে আরো সুস্পষ্ট করে তুলবে।

		কল্লোল, কালিকলম, প্রগতি প্রবাসী, ভারতবর্ষ, শনিবারের চিঠি পরিচয়, কবিতা, কৃত্তিবাস	
	BNGA-CC-6	ঐতিহাসিক ভাষাবিজ্ঞান **মডিউল – ১** ভাষা, ভাষাপরিবার প্রাচীন ভারতীয় আর্যভাষা থেকে আধুনিক ভারতীয় আর্যভাষা হিসেবে বাংলা ভাষার উদ্ভবের গতিরেখা **মডিউল – ২** প্রাচীন বাংলা ভাষার ভাষাতাত্ত্বিক লক্ষণ-প্রেক্ষিত চর্যাপদ আদি-মধ্য বাংলা ভাষার ভাষাতাত্ত্বিক লক্ষণ-প্রেক্ষিত শ্রীকৃষ্ণকীর্তন **মডিউল – ৩** অন্ত-মধ্য বাংলা ভাষার ভাষাতাত্ত্বিক লক্ষণ-প্রেক্ষিত অন্নদামঙ্গল আধুনিক বাংলা ভাষার ভাষাতাত্ত্বিক লক্ষণ-প্রেক্ষিত পরিব্রাজক(স্বামী বিবেকানন্দ)	প্রাচীন ভারতীয় আর্যভাষা থেকে আধুনিক ভারতীয় আর্যভাষা হিসেবে বাংলা ভাষার উদ্ভব ও বিকাশের প্রতিটি স্তরে সাহিত্যিক নিদর্শনের সহায়তায় সেই পর্যায়ের ভাষাগত বৈশিষ্ট্য সম্পর্কে শিক্ষার্থীদের ধারণা তৈরি হবে।
	BNG-A-CC-7	কথাসাহিত্য **মডিউল – ১ : উপন্যাস** যোগাযোগ- রবীন্দ্রনাথ ঠাকুর দেনাপাওনা- শরৎচন্দ্র চট্টোপাধ্যায় **মডিউল – ২ : উপন্যাস** পদ্মানদীর মাঝি- মানিক বন্দ্যোপাধ্যায় অরণ্যের অধিকার- মহাশ্বেতা দেবী **মডিউল – ৩ : ছোটগল্প** **ক.** রবীন্দ্রনাথ ঠাকুরের ছোটগল্প : নিশীথে, একরাত্রি, সুভা, অতিথি, ল্যাবরেটরী **খ.** একালের ছোটগল্প সঞ্চয়ন পয়োমুখম : জগদীশ গুপ্ত মহানগর : প্রেমেন্দ্র মিত্র ফসিল : সুবোধ ঘোষ এখন প্রেম : তপোবিজয় ঘোষ প্লাবনকাল : সুচিত্রা ভট্টাচার্য	তৃতীয় সেমেস্টারে পূর্ববর্তী কোর্সদুটিতে বিশ শতকের বাংলা সাহিত্য ও ভাষার ইতিহাস সম্পর্কে ধারণা লাভের পর শিক্ষার্থীরা এই অংশে আধুনিক সময়ের জটিলতা, ব্যষ্টি-সমষ্টির দ্বন্দ্ব, বাঙালি পরিবারে নারীর অবস্থান, মানুষের জীবন সংগ্রামের নানারূপ সম্পর্কে অবহিত হবে।
		ব্যবহারিক বাংলা- ১ **মডিউল – ১** গল্পসূত্র থেকে কাহিনি নির্মাণ	পরবর্তী জীবনের পেশা হিসেবে যে সব পড়ুয়া নাটক, সিনেমা-সিরিয়াল কিংবা

	BNG-A-SEC-A-2	গল্প/উপন্যাস থেকে নাট্যরূপ/চিত্রনাট্য নির্মাণ **মডিউল – ২** বাংলা ভাষার/ শব্দের সঠিক উচ্চারণ ছন্দ সম্পর্কিত জ্ঞান। আবৃত্তিচর্চা **মডিউল – ৩** সাহিত্য ও চলচিত্র- পারস্পরিক সম্পর্ক বাংলা সাহিত্যের চলচ্চিত্রায়ণ বিশেষ পাঠ : ক্ষুধিত পাষাণ, পথের পাঁচালী, বাড়ি থেকে পালিয়ে	আবৃত্তিকে পেশা হিসেবে গ্রহণ করতে ইচ্ছুক তাদের জন্য এই কোর্সটি উপযুক্ত হবে। প্রাথমিক ধ্যানধারণা তারা লাভ করবে এখান থেকে।
4th	BNG-A-CC-8	প্রাগাধুনিক সাহিত্য **মডিউল – ১ বৈষ্ণব পদাবলী** নীরদনয়নে নীর ঘন সিঞ্চনে আজু হাম কি পেখলুঁ নবদ্বীপ চন্দ দাঁড়াইয়া নন্দের আগে গোপাল কান্দে অনুরাগে ঘরের বাহিরে দণ্ডে শতবার রূপ লাগি আঁখি ঝুরে গুণে মন ভোর এমন পিরীতি কভু নাহি দেখি শুনি সখি কি পুছসি অনুভব মোয় কণ্টক গাড়ি কমল সম পদতল মন্দির বাহির কঠিন কপাট কি মোহিনী জান বধুঁ কি মোহিনী জান বধুঁ তুমি যে আমার প্রাণ অঙ্কুর তপন তাপে যদি জারব বহুদিন পরে বধুঁয়া এলে তাতল সৈকত বারি-বিন্দুসম **মডিউল – ২ চণ্ডীমঙ্গল(১ম খণ্ড)** **মডিউল – ৩ শাক্ত পদাবলী** গিরিবর, আর আমি পারিনে হে, প্রবোধ দিতে উমারে (বাল্যলীলা) গিরি, এবার আমার উমা এলে (আগমনী) কবে যাবে বল গিরিরাজ (ঐ) বারে বারে কহ রাণী, গৌরী আনিবারে (ঐ) ওহে হর গঙ্গাধর, কর অঙ্গীকার (ঐ) গিরিরাণী, এই নাও তোমার উমারে (ঐ) ওরে নবমী নিশি, না হইও রে (বিজয়া) ওহে প্রাণনাথ গিরিবর হে(ঐ) কেবল আসার আশা, ভবে আসা (ভক্তের আকুতি) মাগো তারা ও শঙ্করি (ঐ) মা আমায় ঘুরাবে কত (ঐ) আমি কি দুখেরে ডরাই? (ঐ) আমায় দেও মা তবিলদারী (ঐ) এমন দিন কি হবে তারা (ঐ)	এই কোর্সের মাধ্যমে শিক্ষার্থীরা মধ্যযুগের বাংলা সাহিত্য সম্পর্কে বিশেষ করে এই সময়পর্বের তিনটি গুরুত্বপূর্ণ সাহিত্যধারা- বৈষ্ণব পদাবলী, শাক্ত পদাবলী ও মঙ্গল সাহিত্যের চণ্ডীমঙ্গল কাব্য বিষয়ে জানতে পারবে। বৈষ্ণব পদাবলীর বিভিন্ন সময়ের একাধিক কবির পদ পাঠ্যসূচীর অন্তর্ভুক্ত হওয়ায় একটা বিস্তৃত ধারণা তৈরি হবে। চণ্ডীমঙ্গল ও শাক্ত পদাবলীর প্রধান কবিদের সঙ্গেও পরিচিতি এই অংশে ঘটবে ছাত্রছাত্রীদের।
	BNG-A-CC-9	ছন্দ, অলঙ্কার ও কাব্যতত্ত্ব **মডিউল – ১ : ছন্দ** কবিতা ও ছন্দ- সাধারণ আলোচনা দল/অক্ষর, কলা/মাত্রা, যতি, যতিলোপ, পর্ব,	পাঠক্রমের এই অংশে শিক্ষার্থীরা বিভিন্ন প্রকার ছন্দ, অলংকার ও সেগুলির গঠনগত বৈশিষ্ট্য সম্পর্কে

		পঙ্‌ক্তি/চরণ, ছত্র, পদ বাংলা ছন্দের ত্রিধারা মিশ্রবৃত্ত/তানপ্রধান/অক্ষরবৃত্ত- উদাহরণসহ বৈশিষ্ট্য সরল কলাবৃত্ত/কলাবৃত্ত/ধ্বনি প্রধান/ মাত্রাবৃত্ত- উদাহরণসহ বৈশিষ্ট্য দলবৃত্ত/ শ্বাসাঘাত প্রধান/বলবৃত্ত/ স্বরবৃত্ত/ ছড়ার ছন্দ/ লৌকিক ছন্দ- উদাহরণসহ বৈশিষ্ট্য বাংলা ছন্দের কয়েকটি রূপবন্ধের পরিচয় ও উদাহরণসহ আলোচনা – পয়ার, সনেট, অমিত্রাক্ষর, মুক্তক, গদ্যছন্দ ছন্দোলিপি প্রণয়ন (পর্ব, পদ, পঙ্‌ক্তি, লয়, মাত্রা ও রীতির উল্লেখ বাঞ্ছনীয়) **মডিউল – ২ : অলংকার** কবিতা ও অলঙ্কার- সাধারণ আলোচনা উদাহরণসহ সংজ্ঞা- অনুপ্রাস, শ্লেষ, যমক, বক্রোক্তি উদাহরণসহ সংজ্ঞা- উপমা, রূপক, সমাসোক্তি, উৎপ্রেক্ষা, অপহ্নুতি, দৃষ্টান্ত, ব্যতিরেক, বিরোধ, অর্থান্তরন্যাস, ব্যাজস্তুতি অলংকার নির্ণয় **মডিউল – ৩ : কাব্যতত্ত্ব** কাব্য জিজ্ঞাসা- অতুলচন্দ্র গুপ্ত (পাঠ্য- ধ্বনি ও রস) অনুকরণতত্ত্ব	জ্ঞানলাভ করবে। ছন্দ, অলংকার নির্ণয় তারা কীভাবে করবে সে সম্পর্কে একটা ধারণা ক্লাসে শিক্ষক/শিক্ষিকা মহাশয়/মহাশয়ের দেবেন। কাব্যতত্ত্বের আলোচনা ছাত্রছাত্রীদের কাব্য-কবিতা পাঠকে গভীরভাবে প্রভাবিত করবে।

	BNG-A-CC-10	**মডিউল – ১** **ক** কমলাকান্তের দপ্তর- বঙ্কিমচন্দ্র চট্টোপাধ্যায় (একা-কে গায় ওই, আমার মন, পতঙ্গ, বিড়াল) **খ একালের প্রবন্ধ সঞ্চয়ন** সংস্কৃতির সামাজিক দূরত্ব- বিনয় ঘোষ শিক্ষা ও বিজ্ঞান- সত্যেন্দ্রনাথ বসু যে দেশে বহু ধর্ম বহু ভাষা- অন্নদাশঙ্কর রায় সাহিত্যের রাজনীতি- সরোজ আচার্য **মডিউল – ২** **ক** সাহিত্য- রবীন্দ্রনাথ ঠাকুর (সাহিত্যের তাৎপর্য, সাহিত্যের বিচারক, সৌন্দর্যবোধ) **খ একালের সমালোচনা সঞ্চয়ন** আধুনিক সাহিত্য- গোপাল হালদার রবীন্দ্রনাথ ও উত্তরসাধক- বুদ্ধদেব বসু পাশ্চাত্য ও প্রাচ্য সমালোচনার ধারা- সুবোধচন্দ্র সেনগুপ্ত উপন্যাস ও সমাজবাস্তবতা- আখতারুজ্জামান ইলিয়াস **মডিউল – ৩** ছিন্নপত্র (১০, ১৮, ৩০, ৬৪, ৬৭, ৭৭, ৮১, ১০২, ১০৬, ১০৮)	এখানে বঙ্কিমচন্দ্র ও বিশ শতকের বিভিন্ন প্রাবন্ধিকের প্রবন্ধ পাঠ ছাত্রছাত্রীদের সমাজ, রাষ্ট্র, বিজ্ঞান, শিক্ষা, ভাষা, সাহিত্য, ধর্ম, দর্শন সহ বিভিন্ন বিষয়ে চিন্তন ক্ষমতাকে সমৃদ্ধ করবে। রবীন্দ্রনাথ ঠাকুরের বিশ্ববোধের এক অনন্যরূপের পরিচয় তারা ছিন্নপত্রে পাবে।
	BNG-A-SEC-B-2	ব্যবহারিক বাংলা-২ **মডিউল – ১ সৃজনশীল রচনা** গল্প রচনা(৩০০ শব্দে সামাজিক/পারিবারিক/ব্যক্তিক যেকোন বিষয়/প্রসঙ্গ অবলম্বনে) প্রবন্ধ রচনা (৩০০ শব্দে সামাজিক/পারিবারিক/ব্যক্তিক যেকোন বিষয়/প্রসঙ্গ অবলম্বনে) **মডিউল – ২** বাংলা বানানের বিবর্তন সম্পর্কে সাধারণ ধারণা পশ্চিমবঙ্গ বাংলা আকাদেমির বানান বিধি **মডিউল – ৩** আন্তর্জাতিক ধ্বনিমূলক বর্ণমালা (IPA) রোমীয় লিপি	যেসব সাহিত্যরূপ পড়ুয়ারা পড়ছে/পড়েছে তা কীভাবে তৈরি হয়ে ওঠে তার কলাকৌশলগুলি সম্পর্কে এখানে হাতে কলমে ধারণা দেওয়া হবে। তার সাথে বাংলা বানান বিধি ও IPA সম্পর্কেও ধারণা তৈরি হবে শিক্ষার্থীদের।
5th	BNG-A-CC-11	সাহিত্যের রূপ ও রীতি **মডিউল – ১ : কাব্য-কবিতা ও নাটক** **ক.** কবিতার বিভিন্ন রূপকল্প- মহাকাব্য, গীতিকবিতা, কবিগান, সনেট, হাইকু, রুবাই ও লিমেরিক **খ.** নাটকের বিভিন্ন রূপকল্প- ট্রাজেডি, কমেডি, প্রহসন, কাব্যনাটক, নৃত্যনাট্য, সামাজিক নাটক, পৌরাণিক নাটক, অ্যাবসার্ড নাটক ও একাঙ্ক নাটক	সাহিত্যের বিভিন্ন সংরূপ যেমন- কবিতা, নাটক, উপন্যাস, ছোটগল্প, প্রবন্ধ প্রভৃতির রূপ ও আঙ্গিক সম্পর্কে শিক্ষার্থীরা জ্ঞানার্জন করবে। ভ্রমণ সাহিত্য, ডায়েরি, পত্রসাহিত্য, রম্যরচনা,

		মডিউল – ২ : উপন্যাস ও ছোটগল্প উপন্যাসের রূপকল্প ও শ্রেণিকরণ- নকশাধর্মী উপন্যাস, ঐতিহাসিক উপন্যাস, রাজনৈতিক উপন্যাস, আঞ্চলিক উপন্যাস, মনস্তাত্ত্বিক উপন্যাস, চেতনাপ্রবাহরীতির উপন্যাস ছোটগল্পের প্রকৃতি ছোটগল্প ও রূপকথা অনুগল্প উপন্যাস ও ছোটগল্পের তুলনা **মডিউল – ৩ : প্রবন্ধ, সমালোচনা ও অন্যান্য সংরূপ** প্রবন্ধের প্রকার- বস্তুনিষ্ঠ, ব্যক্তিনিষ্ঠ, লঘু প্রবন্ধ ও গবেষণা প্রবন্ধ সমালোচনা সাহিত্য ভ্রমণ সাহিত্য, ডায়েরি, পত্রসাহিত্য, রম্যরচনা, জীবনী ও আত্মজীবনী/স্মৃতিকথা	আত্মজীবনী, স্মৃতিকথা ইত্যাদি বিষয়ের সংযোজন পাঠ্যবিষয়কে আকর্ষণীয় ও আনন্দদায়ক করে তুলবে। সাহিত্যের বিবর্তন সম্পর্কেও একটা ধারণা তৈরি হবে এই অংশে।
	BNG-A-CC-12	**মডিউল – ১** বুড় সালিকের ঘাড়ে রোঁ- মধুসূদন দত্ত মুক্তধারা- রবীন্দ্রনাথ ঠাকুর **মডিউল – ২** কারাগার- মন্মথ রায় টিনের তলোয়ার- উৎপল দত্ত **মডিউল – ৩ : রঙ্গমঞ্চের ইতিহাস** লেবেডফ ও বেঙ্গলি থিয়েটার, নবীন বসুর শ্যামবাজার থিয়েটার, বেলগাছিয়া নাট্যশালা, জোড়াসাঁকো নাট্যশালা, বাগবাজার অ্যামেচার থিয়েটার(শ্যামবাজার নাট্যসমাজ) ন্যাশনাল থিয়েটার (প্রথম ও দ্বিতীয় পর্ব) নাট্যনিয়ন্ত্রণ বিল গণনাট্য ও নবনাট্য আন্দোলনের কাল	বাংলা নাট্যমঞ্চের ইতিহাস সম্পর্কে জানার সুযোগ এই অংশে পাবে পড়ুয়ারা। উনিশ শতকের কিছু বিখ্যাত নাটক ও বিশ শতকের নাট্য আন্দোলন বিষয়ে সংক্ষিপ্ত ধারণা দেওয়া এই কোর্সটির উদ্দেশ্য।
	BNG-A-DSE-A-1	**মডিউল – ১** বাংলা ও বাঙালি জাতির ভৌগোলিক ও নৃতাত্ত্বিক পরিচয় বাংলার সমাজ কাঠামো ও অর্থনৈতিক ভিত্তি বাংলার রাজনৈতিক ইতিহাস বাংলা ধর্ম চৈতন্য-সংস্কৃতি বাঙালির সাংস্কৃতিক স্বরূপ **মডিউল – ২** ঔপনিবেশিক আধুনিকতার অভিঘাত- শিক্ষায়, ধর্ম সংস্কারে ও মুক্ত চিন্তায় কৃষক আন্দোলন, নীল বিদ্রোহ, ফকির আন্দোলন ধর্ম, সমাজ ও শিক্ষা সংস্কারের উদ্দেশ্যে গঠিত সভা-সমিতি (১৯ শতক) **মডিউল – ৩** বঙ্গভঙ্গ ও বয়কট-স্বদেশী আন্দোলন প্রান্তবর্গ/দলিত জনগোষ্ঠীর জাগরণ বাঙালি মুসলমানের স্বতন্ত্র জাতিসত্তার সন্ধান দেশভাগ, উদ্বাস্তু সমস্যা ও ভাষা আন্দোলন	বাংলা ভাষার উদ্ভবের সময়কাল থেকে আধুনিক কাল পর্যন্ত বাঙালি জাতির সাংস্কৃতিক বিকাশের গতিরেখার সাথে শিক্ষার্থীদের পরিচয় ঘটানোই এই কোর্সের উদ্দেশ্য। প্রাচীন যুগ, মধ্যযুগ, আধুনিক কালের প্রাক্ স্বাধীনতা ও স্বাধীনত্তোর পর্বের বাংলা সমাজ, সংস্কৃতি, সাহিত্য ও ভাবধারার গতিপথ সম্পর্কে সুস্পষ্ট একটা ধারণা তৈরি হবে এই অংশে।

		খাদ্য আন্দোলন ও নকশাল আন্দোলন	
	BNG-A-DSE-B-1	বাংলা শিশু ও কিশোর সাহিত্য **মডিউল – ১** ক্ষীরের পুতুল- অবনীন্দ্রনাথ ঠাকুর ঠাকুমার ঝুলি- দক্ষিণারঞ্জন মিত্র মজুমদার (কিরণমালা, সাতভাই চম্পা, সুখু আর দুখু) **মডিউল – ২** আবোল তাবোল- সুকুমার রায় (আবোল তাবোল, খিচুড়ি, সৎপাত্র, একুশে আইন, নারদ! নারদ!, গন্ধ বিচার) ছড়াসমগ্র- অন্নদাশঙ্কর রায় (লণ্ডনের শীত, খুকু ও খোকা, পক্ষীরাজ, কাটাকুটি খেলা, অবাক চা পান, ঢাকাই ছড়া, সোনার হরিণ) **মডিউল – ৩** বাদশাহী আংটি- সত্যজিৎ রায় সবুজ দ্বীপের রাজা- সুনীল গঙ্গোপাধ্যায়	বাংলা শিশু কিশোর সাহিত্যের পঠনপাঠন শিক্ষার্থীর জ্ঞানের পরিধিকে বিস্তৃত করতে সাহায্য করবে। এর ইতিহাস সম্পর্কেও জানবে তারা। বিভিন্ন সময়ে ছোটদের জন্য রচিত গল্প, ছড়া, উপন্যাস পাঠক্রমের একঘেয়েমিকে দূর করবে।
6th	BNG-A-CC-13	আধুনিক বাংলা কাব্য-কবিতা **মডিউল – ১** বীরাঙ্গনা কাব্য- মধুসূদন দত্ত (দুষ্মন্তের প্রতি শকুন্তলা, সোমের প্রতি তারা, দ্বারকানাথের প্রতি রুক্মিনী, দশরথের প্রতি কেকয়ী, লক্ষ্মণের প্রতি শূর্পনখা এবং নীলধ্বজের প্রতি জনা) **মডিউল – ২** **ক** সোনার তরী- রবীন্দ্রনাথ ঠাকুর (সোনার তরী, বৈষ্ণব কবিতা, বসুন্ধরা, নিরুদ্দেশ যাত্রা) **খ** সঞ্চিতা (বিদ্রোহী, অভিশাপ, দারিদ্র, নারী) **মডিউল – ৩** একালের কবিতা সঞ্চয়ন **ক** রাত্রি – জীবনানন্দ দাশ সোহংবাদ- সুধীন্দ্রনাথ দত্ত সংগতি- অমিয় চক্রবর্তী রবীন্দ্রনাথের প্রতি- বুদ্ধদেব বসু প্রচ্ছন্ন স্বদেশ- বিষ্ণু দে **খ** বধূ- সুভাষ মুখোপাধ্যায় বোধন- সুভাষ মুখোপাধ্যায় বৃক্ষ- কবিতা সিংহ স্মৃতির শহরে- সুনীল গঙ্গোপাধ্যায় আমার নাম ভারতবর্ষ- অমিতাভ দাশগুপ্ত	ঔপনিবেশিক আধুনিকতার সংস্পর্শে এসে আমাদের কাব্যে যে নবযুগের সঞ্চার হয়েছিল, তার বিভিন্ন পর্বকে পড়ুয়ারা অনুধাবন করতে পারবে এই অংশে। উনিশ ও বিশ শতকের কবিতা পাঠ পূর্ববর্তী কোর্সগুলিতে অর্জিত বাংলা কবিতার ইতিহাস সম্পর্কিত ধারণাকে আরো সমৃদ্ধ করবে।

	BNG-A-CC-14	সংস্কৃত, ইংরেজি ও প্রতিবেশী (হিন্দি) সাহিত্যের ইতিহাস **মডিউল – ১ সংস্কৃত সাহিত্যের সংক্ষিপ্ত ইতিহাস** কালিদাস(কবি ও নাট্যকার) ভবভূতি বাণভট্ট শূদ্রক জয়দেব **মডিউল – ২ ইংরেজি সাহিত্যের সংক্ষিপ্ত ইতিহাস** নাটক- উইলিয়াম শেক্সপিয়র, জর্জ বার্নার্ড শ, স্যামুয়েল বেকেট কাব্য- উইলিয়াম ওয়ার্ডসওয়ার্থ, পি বি শেলি, জন কীটস, টি এস এলিয়ট কথাসাহিত্য- ওয়াল্টার স্কট, চার্লস ডিকেন্স, ভার্জিনিয়া উলফ্ **মডিউল – ২ প্রতিবেশী সাহিত্যের সংক্ষিপ্ত ইতিহাস : হিন্দী (পঠন-পাঠন হবে বাংলায়)** ভারতেন্দু হরিশচন্দ্র, মুন্সী প্রেমচাঁদ মহাদেবী বর্মা, সূর্যকান্ত ত্রিপাঠী নিরালা, ফণীশ্বরনাথ রেণু	বাংলা সাহিত্যের সামগ্রিক পরিচয় পাওয়ার পর এখানে শিক্ষার্থী সংস্কৃত, ইংরেজি এবং প্রতিবেশী হিন্দী সাহিত্যের ইতিহাস সম্পর্কে প্রাথমিক পরিচয় লাভ করবে যা বাংলা সাহিত্য সম্পর্কে মূল্যায়নে সহায়ক হয়ে উঠবে।
	BNG-A-DSE-A-3	বাংলা গোয়েন্দা সাহিত্য, কল্পবিজ্ঞান আশ্রয়ী রচনা এবং অলৌকিক কাহিনি **মডিউল – ১** শজারুর কাঁটা- শরদিন্দু বন্দ্যোপাধ্যায় **মডিউল – ২** শঙ্কু সমগ্র- সত্যজিৎ রায় (ব্যোমযাত্রীর ডায়েরি, প্রফেসর শঙ্কু ও ম্যাকাও, প্রফেসর শঙ্কু ও গোলক রহস্য, প্রফেসর শঙ্কু ও রোবু, হিপনোজেন, মহাকাশের দূত, শঙ্কু ও আদিম মানুষ, শঙ্কু ও ফ্র্যাঙ্কেনস্টাইন) **মডিউল – ৩** সব ভুতুড়ে- লীলা মজুমদার	গোয়েন্দা সাহিত্য, কল্পবিজ্ঞান ও ভূতের গল্প পাঠের মধ্য দিয়ে কিশোরদের সাহিত্যরস আস্বাদনের অভ্যাস তৈরি হয়ে ওঠে। তাদের চেনা ক্ষেত্রকে পড়ুয়ারা বিদ্যায়তনিক পাঠ শৃঙ্খলায় অধ্যয়ন করতে শিখবে।
	BNG-A-DSE-B-3	চরিত সাহিত্য, আত্মচরিত ও ভ্রমণ সাহিত্য **মডিউল – ১** চৈতন্যভাগবত (আদ্যলীলা)- বৃন্দাবন দাস **মডিউল – ২** জীবনস্মৃতি- রবীন্দ্রনাথ ঠাকুর **মডিউল – ৩** দেশে-বিদেশে- সৈয়দ মজুতবা আলী	চরিত সাহিত্য ও আত্মচরিত পাঠের মধ্য দিয়ে পড়ুয়ারা ব্যক্তি চৈতন্যদেব কিংবা রবীন্দ্রনাথকে যেমন চিনবে তেমনি তাঁদের সমকালের ধারণাটিকেও আয়ত্ত করতে পারবে। সুখপাঠ্য দেশে-বিদেশে পাঠের মাধ্যমে ব্যক্তি মুজতবা এবং তাঁর বিচিত্র জীবন অভিজ্ঞতার সঙ্গে পরিচিত হবে পড়ুয়ারা।

EDUCATION

CC – 1

Introduction to Education

The students will be able to know the meaning, nature, scope and aims of education.

They will be able to elaborate the factors of education and their interrelationship.

The students will be able to become aware of different agencies of education that influence education.

The students will be able to be acquainted with the concept of child-centricism and play-way in education

CC – 2

History of Indian Education

The students will be able to know the salient features of education in India during ancient and medieval times.

They will be familiar with the development of education in British India.

The students will be able to remember the significant points of selected education commissions & national policy of education in independent India.

CC — 3

Psychological Foundation of Education

The students will be able to understand the meaning and nature of Psychology.

They will be capable of distinguishing the patterns of different types of human development.

They will understand cognitive approach of development and to understand the process and factors of cognition.

CC-4

Philosophical Foundation of Education

They will able to explain the meaning and relation of philosophy and education.

The students will be able to understand the importance of philosophy in education.

They will understand Indian schools of philosophy and their impact on education.

The students will be able to explain the western philosophy and their influence on education.

The students will be able to develop an understanding of philosophy for development of humanity.

CC - 5

Sociological Foundation of Education

The students will be able to understand the relation between Sociology and Education nature, and scope of Sociology of education.

They will be able to explain the concept of Social Groups and Socialization process_

The students will be enabled to understand the concept of Social change and Social interaction in education

The students will be able to become aware of social Communication in Education

CC — 6

Educational Organization. Management and Planning

They will be able to understand the ideal organization in educational institutions.

The students will be able to elaborate essential functions of educational management.

They will be able to gain the knowledge of the different aspects of planning.

CC — 7

Guidance and Counselling

They will be able to understand the meaning, function and types of guidance.

They will be able to know the basic need of guidance in secondary schools and requisites of a good school guidance programme

The students will be able to understand the basic concept of Counselling

They will be able to know the basic data necessary for Guidance

CC-8

Technology in Education

The students will be able to develop an understanding of educational technology and its functions.

They will be able to know the system approach

The students will be able to develop an understanding of the use of computer in education and communication

They will be able to explain instructional techniques and different models of teaching

They will be able to explain develop an understanding of ICT & e-learning.

CC — 9

Curriculum Studies

They will be able to explain the concept, nature, types and major approaches of curriculum

They will be able to explore the relationship between curriculum, pedagogy and assessment

They will be able to explain curriculum development and national curriculum framework, 2005

They will be able to understand content selection and selected theories in this regard

They will be able to elucidate evaluation & reform of curriculum

CC —10

Inclusive Education

They will be able to explain the meaning of Inclusion and exclusion

They will be able to know the types of exclusion and their causes

The students will able to know how to bring about inclusion in different spheres

They will be able to know about Impairment, Disability and Handicap.

They will be able to know the general causes of Disability.

They will be able to form the concept of SC, ST, OBC groups, gender, and sexuality

CC -11

Evaluation and Measurement in Education

They will be able to form the concepts of measurement and evaluation in education.

They will be able to know the process of Evaluation

They will be able explain different types of measuring instruments and their uses.

They will be able to elaborate the concepts of validity and reliability and their importance in educational measurement.

They will be able to understand the principles of test construction.

CC — 12

Statistics in Education

The students will be able to learn the concept of statistics and analyse descriptive statistics

They will be able to know the concept of Normal Probability Curve and its uses in the field education

They will also be able to explain the concept of measures of relationship

The students will be able to organize relevant educational data and to represent educational data through graphs and to develop skill in analyzing and displaying data.

CC — 13

Psychology of Adjustment

The students will be able to understand the definition and concept of adjustment, maladjustment and some commonly found problem behavior.

They will be able to know the multi-axial classification of mental disorders.

They will be aware aware about different coping strategies for stressful situation.

They will be to know the administration, scoring and interpretation of the psychological tests.

CC — 14

Basic Concept of Educational Research

The students will be able to understand the basic concept of educational research.

They will be able to learn about the various steps to be followed for conducting a research.

They will be able to write a research proposal and review research papers.

SEC — A

Communication Skill

The students will be able to understand the basic foundations of Communication.

The students will be able to know Listening Skills.

The students will be able to know Speaking Skills.

The students will be able to learn about Reading and Writing Skills.

SEC — A

Skill for Democratic Citizenship

The students will be able to get an idea about their duties as citizens.

The students will be able to understand about their rights as citizens.

The students will be able to explain child violence and child rights.

The students will be able to learn domestic violence and domestic rights.

SEC — B

Teaching Skill

The students will be able to know the basic concept of Teaching.

The students will be able to explain the Types of Teaching.

The students will be able to understand the Skills of Teaching.

The students will be able to learn the Concept of Learning Design (LD).

SEC — B

Life Skill Education

The students will be able to understand the concept of life skills.

The students will be able to form an idea about the different types of life skills.

The students will be able to find the ways in which individual's personality can be formed through the development of these Life skills.

DSE – A

Peace and Value Education

The students will be able to explain the concept and meaning of peace education.

The students will be able to understand the concept of peace and non-violence.

The students will be able to develop the concept of value education.

The students will be able to understand the relation between peace, value and conflict resolution.

DSE - A

Educational Thought of Great Educators

The students will be able to grasp and form the concept of educational ideas of Indian and Western Educators.

The students will be able to learn pedagogical concepts articulated by Indian and Western educational thinkers.

DSE —A

Gender and Society

The students will be able to know the basic concepts used in gender studies.

The students will be able to learn the concept of gender discrimination in construction and dissemination of knowledge.

The students will be able to develop an awareness and sensitivity towards gender issues.

DSE -A

Population Education

The students will be able to learn the concept of Population Education.

The students will be able to know Population growth and its impact and responsibilities.

The students will be able to explain population education and role of school.

The students will be able to define teacher education.

DSE — B

Teacher Education

The students will be able to know the historical perspective and development of teacher education in India

The students will be able to explore the role of the different agencies in teacher education.

DSE - B

Open and Distance Learning

The students will be able to learn the meaning and concept of open and distance education.

The students will be able to know different modes and strategies of open and distance education.

The students will be able to find out relationship among non-formal, correspondence, distance and open education.

The students will be able to learn the different agencies, problems and remedies of open and distance education in India.

DSE — B

Human Rights Education

The students will be able to know the meaning, concept and definition of human rights.

The students will be able explore the role of United Nations and human rights.

The students will be able to find enforcement mechanism in India.

The students will be able to explain the role of advocacy groups.

DSE - B

Women Education

The students will be able to know the concept of women education in different periods, role of missionaries for women education and role of British govt. for women education.

The students will be able to know the role of Indian thinkers towards Women Education.

To identify major constraints of Women Education and Women Empowerment

ENGLISH

Course	Module	Course Outcomes
ENGA CC-1 HISTORY OF ENGLISH LITERATURE AND PHILOLOGY	**Group A: History of Literature** Unit A –Old English Heroic Poetry, Old English Prose and Chaucer Unit B – Elizabethan Sonnets, University Wits and Ben Jonson Unit C–Restoration Comedy of Manners and Eighteenth Century Novels Unit D – Pre-Romantic Poetry and Romantic Non-fiction Prose Unit E–Victorian Novel and the Pre-Raphaelites Unit F–Modern Novel: Joseph Conrad, Virginia Woolf, James Joyce Modern Poetry: T.S. Eliot, W.B. Yeats, Dylan Thomas Modern Drama: Samuel Beckett, Harold Pinter, John Osborne **Group – B: Philology** Section 1: Latin Influence, Scandinavian Influence, French Influence, Americanism Section 2: Consonant Shift and Word Formation Processes (Shortening, Back-formation, Derivations), Short Notes (Hybridism, Monosyllabism, Free & Fixed Compounds, Malapropism, ing-formation, Johnsonese)	Develop an understanding of the major periods, movements, and literary works in the history of English literature. Students will be able to identify and analyze significant literary texts from various periods, including Old English, Middle English, Renaissance, Romantic, Victorian, and Modernist periods. Analyze and interpret literary texts within their historical, cultural, and social contexts. Students will learn to examine literature as a reflection of its time, exploring the ways in which historical events, societal changes, and cultural movements influenced the development of English literature. Students will gain a clear understanding of the history and processes of the English language, trace its growth and development, and perceive the relationship between the English language and literature. Understand the principles and methods of English language analysis. Students will acquire a solid foundation in phonetics, phonology, morphology, syntax, and semantics, enabling them to analyze and describe the structure, sounds, and meaning of the English language. Apply historical linguistics to the study of English. Students will explore the historical development of the English language, including its origins, changes over time, and interactions with other

		languages. They will learn to identify and analyze linguistic features and variations in different stages of English, from Old English to Middle English and Modern English.
ENGA CC-2 EUROPEAN CLASSICAL LITERATURE	Homer, The Iliad (Books I and II) translated by E.V. Rieu Sophocles, Oedipus the King, in The Three Theban Plays, translated by Robert Fagles Ovid, Selections from Metamorphosis, 'Bacchus' (Book III) Plautus, Pot of Gold, translated by E.F. Watling	Develop a comprehensive understanding of major works and authors in European classical literature. Students will explore influential literary works from ancient Greece and Rome. Analyze and interpret classical literary texts within their historical and cultural contexts. Students will learn to critically examine classical texts, considering the social, political, and cultural milieu in which they were produced. They will explore the themes, motifs, and stylistic features that characterize classical literature and discern their relevance to the period in which they were written. Compare and contrast literary works from different time periods and cultures within the European classical tradition. Students will develop the ability to identify common themes, motifs, and literary techniques across different literary works. They will also explore how ideas and literary conventions were passed down and transformed throughout the centuries, promoting a deeper understanding of literary continuity and innovation. Engage in close reading and textual analysis of classical literary works. Students will develop skills in analyzing and interpreting the language, structure, and symbolism employed in classical texts.
ENGA CC-3 INDIAN WRITING IN ENGLISH	**Poetry** Henry Louis Vivian Derozio, 'To India, My Native Land'	Gain a comprehensive understanding of the historical and cultural contexts of Indian

	Toru Dutt, 'Our Casuarina Tree' Kamala Das, 'Introduction' A.K. Ramanujan, 'River' Nissim Ezekiel, 'Enterprise' Jayanta Mahapatra, 'Dawn at Puri' **Novel** Bankimchandra Chattopadhyay: ‘Rajmohan's Wife’ **Drama** Mahesh Dattani, ‘Bravely Fought the Queen’	Writing in English. Students will explore the sociopolitical, historical, and cultural factors that shaped the emergence and development of Indian Writing in English as a distinct literary tradition within India. Analyze and interpret literary works by Indian authors writing in English. Examine the themes, motifs, and literary techniques employed in Indian Writing in English. Students will analyse how these authors address issues of identity, language, colonialism, postcolonialism, gender, and cultural hybridity in their works. Students will examine how Indian writers negotiate their cultural heritage, linguistic diversity, and individual identities through the medium of English language.
ENGA CC-4 BRITISH POETRY AND DRAMA (14TH – 17TH CENTURY)	**Poetry** Geoffrey Chaucer, 'Wife of Bath's Prologue' Edmund Spenser, 'One Day I Wrote Her Name' William Shakespeare, Sonnets 18 & 130 John Donne, 'The Good Morrow' Andrew Marvell, 'To His Coy Mistress' **Drama** Christopher Marlowe*, Edward II* William Shakespeare, *Twelfth Night*	Students will explore the works of influential authors of the age, gaining familiarity with their significant contributions to poetry and drama during this period. Students will engage in close reading and textual analysis of poems and plays, examining the use of imagery, metaphor, symbolism, meter, rhyme, and dramatic devices. Students will explore the political, religious, and intellectual influences that shaped literary production during the 14th to 17th centuries. Compare and contrast the poetic and dramatic styles and conventions of different authors and genres within this period.
ENGA CC-5 AMERICAN LITERATURE	**Poetry** Robert Frost, 'After Apple	Develop a comprehensive understanding of the major periods, movements, and literary

	Picking' Walt Whitman, 'O Captain, My Captain' Sylvia Plath, 'Daddy' Langston Hughes, 'Harlem to be Answered' Edgar Allan Poe, 'To Helen' **Novel** Ernest Hemingway, The Old Man and the Sea **Stories** Edgar Allan Poe, 'The Purloined Letter' F. Scott Fitzgerald, 'The Crack-up' William Faulkner, 'Dry September' **Drama** Arthur Miller, Death of A Salesman	works in American literature. Students will explore the diverse literary traditions in American literature, including Colonial and Revolutionary literature, the Romantic period, Realism, Modernism, the Harlem Renaissance, and contemporary literature. They will gain knowledge of significant authors and works that have shaped American literary history. Analyze and interpret American literary texts within their historical, cultural, and social contexts. Engage in close reading and textual analysis of American literary works. Students will develop skills in analyzing the language, style, themes, and literary techniques employed in American literature. They will explore the ways in which American writers have experimented with form, narrative structure, and language to convey their ideas and visions.
ENGA CC-6 POPULAR FICTION	Lewis Carroll, *Through the Looking Glass* Agatha Christie, *The Murder of Roger Ackroyd* Sukumar Ray, Abol Tabol ('Nonsense Rhymes', translated Satyajit Ray), Kolkata: Writers' Workshop Herge, Tintin in Tibet	Students will explore the diverse genres and forms of popular literature, such as fantasy, mystery, Children’s Literature and Comics. Analyze and interpret popular literary texts within their cultural and social contexts. Examine the relationship between popular literature and other forms of media and entertainment. Students will explore the intersections between popular literature and film, television, video games, and digital media. Consider the reception and impact of popular literature on readers and popular culture.

ENGA CC-7 BRITISH POETRY AND DRAMA (17TH – 18TH CENTURY)	Poetry John Milton, Paradise Lost, Book I Alexander Pope, The Rape of the Lock, Cantos I-III **Drama** John Webster, The Duchess of Malfi Aphra Behn, The Rover	Analyze and interpret the themes, language, and literary techniques employed in 17th and 18th century British poetry and drama. Students will examine the use of poetic forms, such as the heroic couplet, as well as dramatic conventions, including comedy of manners and the restoration tragedy. They will explore how these literary techniques contribute to the overall meaning and impact of the works. Understand the historical, cultural, and social contexts in which the poetry and drama of this period were produced. Students will examine the political, religious, and intellectual influences that shaped literary production during the 17th and 18th centuries. They will analyze how these works reflect and respond to the cultural and societal changes of the time, including the Restoration, the Enlightenment, and the rise of neoclassicism..
ENGA SEC-A2 BUSINESS COMMUNICATION	What is business communication? Writing reports, letters, curriculum vitae Writing meeting minutes E-correspondence	Effective Communication Skills: Develop the ability to convey ideas clearly, concisely, and persuasively in various business contexts, including written, verbal, and nonverbal communication. Professional Writing Proficiency: Enhance writing skills for business correspondence, reports, proposals, emails, and other written communications tailored to specific audiences and purposes.
ENGA CC-8 BRITISH LITERATURE – 18TH CENTURY	**Poetry** Samuel Johnson, 'London' Thomas Gray, Elegy Written in a Country Churchyard **Drama**	Students will demonstrate an understanding of the major literary movements and styles of the 18th century, including Neoclassicism, Romanticism, and the rise of the novel, through analysis of the prescribed primary texts and secondary

	William Congreve, The Way of the World **Prose (Fiction & Non-Fiction)** Daniel Defoe, Robinson Crusoe Joseph Addison, 'Sir Roger at Home' and 'Sir Roger at Church'	sources. Students will be able to analyze the works of key authors from the period, examining their themes, styles, and contributions to the literary landscape of the time. Students will contextualize 18th-century English literature within broader historical, social, and cultural contexts, including the Enlightenment, the rise of the middle class, developments in science and philosophy, and the effects of colonialism and imperialism.
ENGA CC-9 BRITISH ROMANTIC LITERATURE	**Poetry** William Blake, 'The Lamb' and 'The Tyger' William Wordsworth, 'Tintern Abbey' Samuel Taylor Coleridge, 'Kubla Khan' Percy Bysshe Shelley, 'Ode to the West Wind' and 'To a Skylark' John Keats, 'Ode to a Nightingale' and 'Ode to Autumn' **Prose (Fiction & Non-Fiction)** Charles Lamb, 'Dream Children', ‘The Superannuated Man’ Mary Shelley, Frankenstein	Students will learn to understand major themes of the Romantic Age including nature, imagination, individualism, the supernatural, and the sublime, through analysis of primary texts and critical readings. Students will be able to critically assess the works of major Romantic authors such as William Wordsworth, Samuel Taylor Coleridge, Percy Bysshe Shelley, John Keats, Charles Lamb and Mary Shelley, examining their literary innovations, thematic concerns, and cultural impact. Students will contextualize British Romantic literature within the historical, social, and cultural contexts of the late 18th and early 19th centuries, including the French Revolution, industrialization, changing attitudes towards nature and society, and the rise of the individual.
ENGA CC-10 19TH CENTURY BRITISH LITERATURE	**Poetry** Lord Tennyson, ‘Ulysses’ Robert Browning, 'My Last	Students will conduct an in-depth study of major Victorian novelists and poets, analysing their contributions to Victorian literature and their

	Duchess' Christina Rossetti, 'The Goblin Market' Matthew Arnold, 'Dover Beach' **Novel** Jane Austen, ‘Pride and Prejudice’ Thomas Hardy, ‘The Mayor of Casterbridge’	representation of Victorian society. Students will explore the social, cultural, and historical contexts of Victorian Britain, including industrialization, urbanization, class dynamics, gender roles, imperialism, and scientific advancements, and analyze how these factors influenced Victorian literature.
ENGA SEC-B2 ACADEMIC WRITING AND COMPOSITION	Introduction to the writing process Introduction to academic writing Summarizing and paraphrasing Citing Sources	Students will learn to conduct research using academic databases and evaluate sources for credibility and relevance. Students will learn the standard protocols of citation and attribution.
ENGA CC-11 WOMEN’S WRITING	**Poetry** Emily Dickinson, 'I cannot live with you' Elizabeth Barrett Browning, 'How do I love thee' Eunice De Souza, 'Advice to Women' **Fiction** Emily Bronte, ‘Wuthering Heights’ Mahasweta Devi, 'Draupadi', translated by Gayatri Chakravorty Spivak Katherine Mansfield, 'Bliss' **Non-Fiction** Mary Wollstonecraft, A Vindication	Students will explore a range of literary works written by women from different historical periods, cultural backgrounds, and geographical regions, gaining insight into the diverse experiences, perspectives, and literary styles of women writers. Students will critically analyze how women writers represent and negotiate gender roles, identities, and experiences in their works, examining themes such as femininity, sexuality, motherhood, sisterhood, and the intersections of gender with race, class, and ethnicity. Students will contextualize women's writing within the broader historical, social, and cultural contexts of feminist movements, theories, and debates, exploring how women writers have contributed to and challenged feminist discourse through their literary works.

	of the Rights of Woman, Chapters I & II (New York: Norton, 1988) Rassundari Devi, Amar Jiban, translated Enakshi Chatterjee, Writers' Workshop.	

ENGA CC-12 EARLY 20TH CENTURY BRITISH LITERATURE	**Poetry** T.S. Eliot, 'The Love Song of J. Alfred Prufrock' and 'Preludes' W.B. Yeats, 'The Second Coming' and 'No Second Troy' Wilfred Owen, 'Spring Offensive' **Fiction** Joseph Conrad, ‘Heart of Darkness’ D.H. Lawrence, ‘Sons and Lovers’ **Drama** George Bernard Shaw, ‘Pygmalion’	Students will learn about the major literary movements and innovations of the early 20th century in British literature, including modernism, imagism and stream-of-consciousness through analysis of primary texts and critical readings. Students will analyse the works of key authors from the period examining their stylistic experimentation and thematic concerns. Students will contextualize early 20th-century British literature within broader historical, social, and cultural contexts, including the aftermath of World War I, changing attitudes towards identity, sexuality, and gender, advancements in technology, and the impact of modernity and urbanization.
ENGA DSE-A1 MODERN INDIAN WRITING IN ENGLISH TRANSLATION	**Novel** Rabindranath Tagore, *The Home and the World* **Poetry** Rabindranath Tagore, 'Light, oh where is the light?' *(Gitanjali XXVII)* and 'When my play was with thee' *(Gitanjali XCVII)* G.M. Muktibodh, 'The Void' Amrita Pritam, 'I say unto Waris Shah' **Drama** Vijay Tendulkar, *Silence! The Court is in Session* Habib Tanveer, *Charandas Chor*	Students will explore a diverse range of literary traditions from India, represented through works translated into English, including fiction, poetry, drama, and non-fiction, from various regions, languages, and cultural backgrounds. Students will develop an understanding of the socio-cultural, historical, and political contexts that shape modern Indian literature, including colonialism, nationalism, globalization, postcolonialism, and the intersections of caste, class, gender, and religion, through analysis of primary texts and supplementary readings.
ENGA DSE-B1 LITERARY TYPES,	Tragedy Comedy	Students will master the intricacies of literary types and genres through the study of

RHETORIC AND PROSODY	Short Story Rhetoric Prosody	important critical texts. Students will master rhetorical strategies and devices such as imagery, metaphor, simile, alliteration, hyperbole, and irony, and understand how these devices contribute to the creation of meaning, tone, and style in literary texts. Students will develop proficiency in prosodic analysis, including the study of meter, rhyme, rhythm, and sound patterns in poetry, and understand how these formal elements contribute to the aesthetic effect and emotional resonance of poetic language.
ENGA CC-13 MODERN EUROPEAN DRAMA	Henrik Ibsen, ‘A Doll's House’ Bertolt Brecht, ‘The Good Woman of Szechuan’ Samuel Beckett, ‘Waiting for Godot’	Students will discover major dramatic movements and trends in modern European drama, including realism, naturalism, expressionism, absurdism, and postmodernism, through analysis of the prescribed plays. Students will contextualize modern European drama within broader historical, social, and cultural contexts, including political upheavals, technological advancements, shifts in social norms, and artistic movements, and analyse how these contexts influence dramatic form, content, and reception.
ENGA CC-14 POSTCOLONIAL LITERATURE	**Poetry** Pablo Neruda, 'Tonight I Can Write' Derek Walcott, 'A Far Cry from Africa' David Malouf, 'Revolving Days' Mamang Dai, 'The Voice of	Students will explore key concepts and theories within postcolonial studies, including colonialism, imperialism, resistance, hybridity, diaspora, subalternity, and the politics of representation, through engagement with primary texts and critical readings. Students will critically analyse how postcolonial literature represents and interrogates power dynamics, identity formation, and cultural

	the Mountain' **Novel** Chinua Achebe, 'Things Fall Apart' Gabriel Garcia Marquez, 'Chronicle of a Death Foretold'	negotiation in the aftermath of colonialism, examining themes such as colonial violence, decolonization, nationalism, migration, and the construction of hybrid identities. Students will contextualize postcolonial literature within the historical, social, and cultural contexts of colonial and postcolonial societies, including the legacies of colonization, struggles for independence, globalization, and contemporary issues such as neocolonialism, and globalization.
ENGA DSE A3 PARTITION LITERATURE	**Novel** Amitav Ghosh, The Shadow Lines **Short Stories** Protiva Basu, 'The Marooned', translated Subhasree Tagore Manik Bandyopadhyay, 'The Final Solution', translated Rani Ray Sadat Hasan Manto, 'Toba Tek Singh' **Poetry** Sahir Ludhianvi, 'Twentysixth January' Birendra Chattopadhyay, 'After Death: Twenty Years' Sankha Ghosh, 'Rehabilitation'	Students will demonstrate an understanding of the historical events leading to the Partition of British India in 1947, including the political, social, and cultural factors that contributed to the division, through analysis of primary historical texts and secondary sources. Students will analySe literary representations of the Partition experience in various forms, including novels, short stories and poetry, examining how writers from different communities and perspectives have depicted the trauma, displacement, loss, and resilience associated with Partition. Students will contextualize Partition literature within the broader framework of postcolonial studies, exploring how the legacy of colonialism, nationalism, identity politics, and communal tensions continue to shape narratives of Partition and its aftermath.
ENGA DSE B3 AUTOBIOGRAPHY	Rabindranath Tagore, *My Reminiscences*, Chapters 1-15,	Understanding of Autobiographical Forms and Conventions Exploration of Identity and Self-

	Mahatma Gandhi, *Autobiography or the Story of My Experiments with Truth*, Part I, Chapters 1 to 8 Binodini Dasi, *My Story and Life as an Actress*, pp 61-83 Nirad C. Chaudhuri, *Autobiography of an Unknown Indian*, Book I	Representation Analysis of Social and Cultural Contexts

HISTORY

CC1: HISTORY OF INDIA: FROM THE EARLIEST TIMES TO C 300BCE

On completion of the course students are expected to

1. Gain knowledge about the sources of early Indian history and historiography.

2. Have acquired knowledge on the pre-history of the Indian subcontinent.

3. Have acquired knowledge on the beginning of civilization in India.

4. Get an idea about jati, varna, purushartthas, chaturashrama and the position of women in early India.

5. Gain knowledge on the strength of diversity of our country.

CC2: SOCIAL FORMATIONS AND CULTURE PATTERNS OF THE ANCIENT WORLD OTHER THAN INDIA

On completion of the course students are expected to

1. Compare the process of development from primitive ages in India as well as other parts of the world, during the same era.

2. Boost the knowledge about the history of ancient Egypt.

3. Get an idea about the history of ancient Greece.

4. Gain knowledge about the history of the Roman Empire. 5. Explore the relationship between the past and the present.

CC3: HISTORY OF INDIA C300BCE TO C 750E

On completion of the course students are expected to

1. Have a knowledge about the socio-political aspect of ancient India.

2. Analyse the economic aspect of the ancient age.

3. Gain knowledge about the protestant religions of ancient India.

4. Get an idea about the growth of monarchical, republican and other forms of government in ancient India.

5. Analyse the interconnection between past and present.

CC4: SOCIAL FORMATION AND CULTURE PATTERNS OF THE MEDIEVAL WORLD OTHER THAN INDIA

On completion of the course students are expected to

1. Get an outline of the historiography of the decline of the Roman Empire.

2. Get knowledge of the society, religion, polity and economy in medieval times.

3. Gain knowledge about the rise of feudalism in medieval Europe.

4. Have an idea about the rise of universities, towns, witchcraft and magic in medieval Europe.

5. Have knowledge about Judaism, Christianity, Islam and the Crusades.

CC5: HISTORY OF INDIA CE750-1206

On completion of the course students are expected to

1. Get an idea on the early medieval period in its totality.

2. Get an idea on the socio-economic structure of the early medieval India.

3. Get an idea on the cultural aspects of the early medieval Indian history.

4. Have knowledge about the political developments in early medieval India.

5. Gain knowledge about the Arab invasion of Sind and its impact.

CC6: RISE OF MODERN WEST-1

On completion of the course students are expected to

1. Get an idea on the transition phase from feudalism to capitalism.

2. Get knowledge of the exploration of the new world by Portugal and Spain.

3. Know the concepts like renaissance, reformation, economic developments associated with this period.

4. Have knowledge about the price revolution, agricultural revolution and the enclosure movement.

5. Gain knowledge about the rise of national monarchies and the emergence of the European state system.

CC7: HISTORY OF INDIA 1206-1526

On completion of the course students are expected to

1. Get an idea on the sultanate period of India.

2. Get an idea on the society and economy of this period

3. Get an idea on the cultural and religious aspect of this period.

4. Gain knowledge about the political developments of the sultanate period.

5. Have knowledge about the emergence of regional dynasties and identities in Vijaynagar, Bahamani, Gujarat, Malwa, Jaunpur and Bengal.

CC8: RISE OF THE MODERN WEST II

On completion of the course students are expected to

1. Get an idea of the crisis in the 17th C Europe.

2. Have an idea about the printing revolution, military revolution and scientific revolution in Europe.

3. Gain knowledge about the English revolution and the origins of enlightenment in Europe.

4. Clear concepts like Mercantilism and Industrial Capitalism. 5. Get an idea of Absolutism in Europe in the 17th C and 18thC.

CC9: HISTORY OF INDIA1526-1605

On completion of the course students are expected to

1. Get an idea on the historiography of the Mughal age.

2. Get an idea of the political history of the Mughal age.

3. Get an idea of the socio-economic aspects of the Mughal age.

4. Have knowledge about the concepts like jabti, mansab, jagir etc.

5. Gain knowledge about the growth and development of religious toleration, Sulh-i-kul, Bhakti and Sufi movements during the era.

CC10: HISTORY OF INDIA 1605-1750

On completion of the course students are expected to

1. Have knowledge about the political and social developments of the Mughal period.

2. Get an idea of Mughal art and architecture.

3. Get an idea of the economic aspect of the Mughal period.

4. Gain knowledge about the various patterns of regional politics during the era.

5. Have an idea about the 18th Century crisis and its related historiography.

CC11: HISTORY OF MODERN EUROPE (c.1780 -1939)

On completion of the course students are expected to

1. Get an idea of the political history of the French revolution, the Napoleonic era and European repercussion.

2. Have knowledge about the revolutionary and radical movements of 1830 and 1848.

3. Form an idea on capitalist industrialization of late 18th C.

4. Gain knowledge about the various forces of nationalism and the reorganisation of the states in the 19th and 20th Centuries in Europe.

5. Get an idea of the World Wars and diplomacy post the World Wars.

CC12: HISTORY OF INDIA (c.1750 -1857)

On completion of the course students are expected to

1. Form an idea on colonialism and its impact on polity.

2. Form an idea on the economic impact of colonialism.

3. Have an idea of the social impact of colonialism and the Indian response to it.

4. Get an idea about the colonial state and its ideology.

5. Form an idea of 1857 mutiny as well as other mutinies of the same era.

CC13: HISTORY OF INDIA (c.1857 -1964)

On completion of the course students are expected to

1. Get an idea about the cultural changes and the socio-religious reform movements of the 19th century.

2. Form an idea on the Indian national movement and the impact of Gandhism.

3. Analyse the role of communalism and rise of Hindu Maha Sabha, Muslim League in Indian politics.

4. Have a knowledge of the transfer of power, partition, integration of the princely states and the adoption of the constitution of India.

5. Gain knowledge about the development of parliamentary democracy, economic planning and foreign policy of independent India.

CC14: HISTORY OF WORLD POLITICS 1945-1994

On completion of the course students are expected to

1. Form an idea on Cold War and its consequences in world politics.

2. Have knowledge about the disintegration of the Soviet Union and its impact in world politics.

3. Form an idea on the rise of P.R.C and Sino-Soviet rift.

4. Gain knowledge about the West – Asian crisis. 5. Form an idea on decolonization.

DSE-A1: HISTORY OF BENGAL (c.1757-1905)

On completion of the course students are expected to

1. Form an idea on Bengal's political history from Plassey to Buxar.

2. Form an idea on colonial economy and the drain of wealth in Bengal.

3. Have an idea about the role of the Christian missionaries and the socio-religious reform movements in Bengal.

4. Gain knowledge about the protest movements against the Raj.

5. Form an idea on the partition of Bengal and its effects on society, polity and economy of Bengal.

DSE-B1: HISTORY OF MODERN EAST ASIA-I CHINA (c.1840 - 1949)

On completion of the course students are expected to

1. Have an idea about the society, economy and polity of pre modern China.

2. Get an idea on the rise of imperialism in China between 19th C and early 20th C.

3. Form an idea about the anti-imperial movements in China.

4. Get an idea on the history of reform movements in China between 1919-1949.

5. Get an idea on the formation of communism in China 1921-1937.

DSE A3 : HISTORY OF BENGAL (c.1905-1947)

On completion of the course students are expected to

1. Have an idea about the partition of Bengal and the Swadeshi movement.

2. Form an idea on Gandhian politics like Civil Disobedience, Quit India movement and other trends in nationalism.

3. Form an idea on communal politics between 1906-1930.

4. Get an idea about the rise of Subhash Chandra Bose and left-wing politics in Bengal.

5. Form an idea on partition of India, Independence, formation of Pakistan.

DSE B3 : HISTORY OF MODERN EAST - II JAPAN (c.1868-1945)

On completion of the course students are expected to

1. Get an idea on the transition from feudalism to capitalism in Japan.

2. Have knowledge about the restoration movement in Japan.

3. Gain knowledge about the Meiji constitution and all round reforms in Japan.

4. Get an idea on the Japanese imperialism.

5. Get an idea on the concepts like democracy, militarism, fascism in Japan.

SEC A (1) : ARCHIVES AND MUSEUMS

On completion of the course students are expected to

1. Gain first-hand knowledge about archives and museums through visit to the museums and archives.

2. Form an idea on the history of archives and museums, with special reference to India.

3. Form an idea on types of archives and museums.

4. Get an idea on museum presentation and exhibition.

5. Have an idea about the role of archives and museums in society.

SEC B (2) : ART APPRECIATION :AN INTRODUCTION TO INDIAN ART

On completion of the course students are expected to

1. Gain first-hand knowledge about Indian art and architecture through visit to a monument of national importance.

2. Get an idea of pre historic and proto historic art.

3. Get an idea on the Indian art between (C600BCE-600CE) and (C600CE1200CE)

4. Have knowledge about Indian art and architecture from C. 1200 CE-1800 CE.

5. Get an idea on contemporary art and architecture of India.

HISTORY (GENERAL)

GE-1 HISTORY OF INDIA FROM EARLIEST TIMES UPTO 300CE

On completion of the course students are expected to

1. Gain knowledge on prehistory.

2. Gain knowledge on the protestant religions of ancient India.

3. Gain knowledge on the political history of ancient India up to 300CE.

GE-2 HISTORY OF INDIA FROM 300C TO 1206

On completion of the course students are expected to

1. Gain knowledge on the political history of ancient India from 300C to 1206C.

2. Gain knowledge on Arab invasion in Sind.

3. Gain knowledge on establishment of the Sultanate rule in India.

GE-3 HISTORY OF INDIA FROM 1206 to 1707

On completion of the course students are expected to

1. Get knowledge regarding the rise of the Mughals in India.

2. Gain knowledge regarding the rise of the bhakti and Sufi movement.

3. Get knowledge regarding the socio-economic and cultural aspects of the Mughal rule.

GE-4 HISTORY OF INDIA 1707-1950

On completion of the course students are expected to

1. Know about the pre 1857 phase and post 1857 phase in Indian politics.

2. Know about the nationalist movement in India. 3. Know about the formation of independent India and the adoption of the constitution.

DSE-A2: SOME ASPECTS OF EUROPEAN HISTORY: C. 1780 – 1945

On completion of the course students are expected to

1. Form an idea on capitalist industrialization of late 18th C.

2. Get an idea of the political history of the French revolution, Napoleonic era and European repercussion.

3. Get an idea of the World Wars and diplomacy post the World Wars.

DSE -B2: SOME ASPECTS OF SOCIETY & ECONOMY OF MODERN EUROPE: 15th – 18th CENTURY

On completion of the course students are expected to

1. Get an idea of the Feudal crisis in Europe.

2. Get an idea of Renaissance and Reformation in Europe.

3. Get an idea of the transition from Feudalism to Capitalism and the rise of Industrial capital.

SEC A1 HISTORICAL TOURISM –THEORY AND PRACTICE

On completion of the course students are expected to

1. Know about ancient art and architecture.

2. Know about Indo-Persian architecture.

3. Know about colonial architecture.

SEC B1 MUSEUMS AND ARCHIVES IN INDIA

On completion of the course students are expected to

1. Get knowledge about the definitions of museums and archives in India.

2. Learn about the history of museums and archives in India.

3. Get knowledge regarding the functions of the museums and archives in India.

PHILOSOPHY

CC1 INDIAN PHILOSOPHY

Articulate and exemplify basic knowledge of the tradition of Indian schools of Philosophy
Analyse the basic concepts and terminology of Indian Philosophical schools.
Evaluate the philosophical richness of Indian thought on philosophical notion.
Understands the variety of Nastika and Astika.
Critically evaluate the application of different Pramanas of Indian Philosophy.
Analyse the cause of the refutation of one school on one pramana than others.

CC2 HISTORY OF WESTERN PHILOSOPHY

Articulate and exemplify basic knowledge of the Western Philosophical tradition from Greek to Modern philosophy.
Understand rationality, freedom of thought and diverse Possibilities of philosophising.
Applying rational and critical thinking, and dialectical method for approaching philosophical and socio-political problems.
Analyse the role of empirical experience in the formation of knowledge which helps to develop scientific temper.
Compare rational and empirical methods and evaluate the need of them for approaching the problem of knowledge.
Create critical perspectives on modern perspectives of knowledge and reality.

CC 3- Outlines of Indian Philosophy

Clarify and elucidate the basic characteristics of Indian Philosophy
Comprehend the theories of Knowledge in ancient Indian Philosophical Schools
Illustrate the basic metaphysical concepts and theories in ancient Indian Philosophical Schools

CC 4 HISTORY OF WESTERN PHILOSOPHY

Clarify and elucidate the basic characteristics of Indian Philosophy
Comprehend the theories of Knowledge in ancient Indian Philosophical Schools
Illustrate the basic metaphysical concepts and theories in ancient Indian Philosophical Schools

CC5 PHILOSOPHY OF MIND

Create opportunities to understand the current developments in the philosophy of mind .

Analyse the significance of the interdisciplinary nature of philosophy of mind

Evaluate problems relating to consciousness scientifically and philosophically

Understand the various theories of mind

Compare the different views on understanding mind brain identities

Critically evaluate the applications of philosophy in solving problems relating to AI, neural correlates of consciousness etc.

CC6 SOCIAL AND POLITICAL PHILOSOPHY

Articulate and exemplify the basic knowledge of the social and political philosophy in India and West.

Understand the scope, nature and method of socio-political philosophy.

Evaluate the scope of social and political philosophy

Analyse how state and citizen are related.

Understand the various social and political perspectives in Modern India.

Make critical comments on the relation between various social and political ideals.

CC7 PHILOSOPHY OF RELIGION

Introduce the philosophical aspects of different religions and to familiarize the students with the value systems of various religions.

Analyse the relationship between religion and other disciplines

Explore the impact of the religious faiths in the philosophical context.

Understand the nature and scope of philosophy of religion.

Make an in-depth search on various types of religious values and facts

Analyse the relationship of religion with various cognate studies.

CC 8 WESTERN LOGIC

Enable the students to have the adequate problem solving and analytical skills

Understand and explain the importance of critical thinking.

Introduce the subject matter of logical reasoning and to provide a detailed analysis of the truth and validity of the arguments.

Describes the nature and scope of logic in our day to day life.

Explain the propositions, their classifications and distribution of terms

Describe inference as a method of thinking and its types and rules.

CC 9 WESTERN LOGIC – II

Enable the students to have the adequate problem solving and analytical skills

Understand and explain the importance of critical thinking.

Introduce the subject matter of logical reasoning and to provide a detailed analysis of the truth and validity of the arguments.

Describes the nature and scope of logic in our day to day life.

Explain the propositions, their classifications and distribution of terms

Describe inference as a method of thinking and its types and rules.

CC10 EPISTEMOLOGY AND METAPHYSICS (WESTERN)

1.Clarify and elucidate the basic characteristics of western metaphysics and epistemology

2. Comprehend the theories of Knowledge

3.Illustrate the basic metaphysical concepts and theories in western philosophy

Create critical and novel approaches in basic Epistemological and Metaphysical problems

CC 11 INDIAN LOGIC AND EPISTEMOLOGY

Study the principles and methods of correct reasoning.

Introduce the different types of common errors that occur in reasoning and analyse their implications

Develop the argumentative skill of each student.

Equip the students to write competitive exams with confidence and clarity by applying the principles of logic.

Able to apply this knowledge to concrete cases in order to see how the rules of logic play out in the real world.

CC12 ETHICS (INDIAN)

Develop common outlook regarding relevance of Ethics

Bring out the basic features of Ethics

Analyse various Ethical theories and study their implications

Create conceptual awareness of Indian Ethics and their significance

CC 13 INDIAN LOGIC AND EPISTEMOLOGY –II

Study the principles and methods of correct reasoning.

Introduce the different types of common errors that occur in reasoning and analyse their implications

Develop the argumentative skill of each student.

Equip the students to write competitive exams with confidence and clarity by applying the principles of logic.

Able to apply this knowledge to concrete cases in order to see how the rules of logic play out in the real world.

CC 14 ETHICS (WESTERN)

Develop common outlook regarding relevance of Ethics

Bring out the basic features of Normative Ethics

Analyse various Ethical theories and study their implications

Create conceptual awareness of Meta Ethics and their significance

Compare different theories of punishment and critically evaluate attitude of society to Capital punishment.

Form conceptions of Rights and Duties in the light of philosophical explanations**.**

DISCIPLINE SPECIFIC ELECTIVE COURSE

PHI-A-DSE-A(1) (Any one from the following options)

A) WESTERN LOGIC-

Enable the students to have the adequate problem solving and analytical skills

Understand and explain the importance of critical thinking.

Introduce the subject matter of logical reasoning and to provide a detailed analysis of the truth and validity of the arguments.

Describes the nature and scope of logic in our day to day life.

Explain the propositions, their classifications and distribution of terms

Describe inference as a method of thinking and its types and rules

B) NORMATIVE AND META ETHICS

1. Identify the problems of Bio-ethics and the principles of ethics.

2. Know about the emergence of applied ethics as an important part of ethics

3.Introduces the different aspects of the general issues in Professional ethics, genetics and cyber ethics.

4.Focus on the data analysis of motion pictures, Nano-sciences and e-waste problems.

5. Introduce bio-ethical problems related to medical ethics, media ethics and ethics of technology.

C)PHILOSOPHY OF LANGUAGE (INDIAN)

1.Articulate and exemplify language as the tool of philosophy

2. Analyse the significance of philosophical interventions in language

3.Evaluate the philosophical problems associated with language

4.Understand the various theories of meaning

5.Compare the different criteria of arriving at meaning

6. Critically evaluate the applications of philosophy in solving linguistic problems.

PHI-A-DSE-B(1)

CLASSICAL TEXTS (Any one from the following options)

Articulate and exemplify basic knowledge of the Western Philosophical tradition

from Greek to Modern philosophy.

Understand rationality, freedom of thought and diverse Possibilities of philosophising.

Applying rational and critical thinking, and dialectical method for approaching philosophical and socio-political problems.

Analyse the role of empirical experience in the formation of knowledge which helps to develop scientific temper.

Compare rational and empirical methods and evaluate the need of them for approaching the problem of knowledge.

Create critical perspectives on modern perspectives of knowledge and reality.

PHI-A-DSE-A(2) (Any one from the following options)

WESTERN LOGIC – II

Enable the students to have the adequate problem solving and analytical skills Understand and explain the importance of critical thinking.

Introduce the subject matter of logical reasoning and to provide a detailed analysis of the truth and validity of the arguments.

Describes the nature and scope of logic in our day to day life.

Explain the propositions, their classifications and distribution of terms

Describe inference as a method of thinking and its types and rules

APPLIED ETHICS (6 Credits per week)

Identify the problems of Bio-ethics and the principles of ethics.

Know about the emergence of applied ethics as an important part of ethics

Introduces the different aspects of the general issues in Professional ethics, genetics and cyber ethics.

Focus on the data analysis of motion pictures, Nano-sciences and e-waste

problems.

Introduce bio-ethical problems related to medical ethics, media ethics and ethics of technology.

C) PHILOSOPHY OF LANGUAGE (WESTERN)

Articulate and exemplify language as the tool of philosophy

Analyse the significance of philosophical interventions in language

Evaluate the philosophical problems associated with language

Understand the various theories of meaning

Compare the different criteria of arriving at meaning

Critically evaluate the applications of philosophy in solving linguistic problems.

PHI-A-DSE-B(2)

CONTEMPORARY INDIAN PHILOSOPHY

Demonstrate basic features of Philosophical dynamics of Modern Indian thinkers.

Introduce the Neo-Vedantic approach of Modern Indian Philosophers

Validate the relevance of the ideals like Universal ‘Religion’ and ‘Integral Yoga’ in the modern world

Ascertain the contemporary relevance of Gandhian Satyagraha model

Familiarise the religious and humanitarian aspects in the philosophy of Tagore and Radhakrishnan

Acquaintance with the modern materialist approach of Radical Humanism

Exemplified the need of democracy and Ambedkar's concept of social democracy

SKILL ENHANCEMENT COURSE

MAN AND ENVIRONMENT

1. Get general awareness of Environmental Ethics.
2. Understand different approaches to Ethics.
3. Evaluate the significance of Ecology and its relation to Environment.
4. Assess the ethical dimensions of Sustainability.
5. Elucidate the relevance of Animal Rights.
6. Articulate and evaluate the importance of Ecocentrism in the context of Deep Ecology.
7. Discriminate and assess the claims of Social Ecology and Land Ethics to deal with environmental issues.

C. FEMINIST PHILOSOPHY

Create opportunities to understand the social significance of gender

Analyse the significance of philosophical interventions in gender issues

Evaluate feminism as a philosophy

Understand the various types of philosophical feminism

Compare the different views on finding gender as a social construct

Critically evaluate the applications of gender philosophy in solving racial and cultural problems.

PHILOSOPHY GENERAL

CC1/GE1: Indian Epistemology and Metaphysics

CO1.This course will help students to acquire the basic knowledge of several systems of Indian philosophy

CO2.It will create an interest about the concepts of Indian philosophy in the student's mind.

CC2/GE2: Western Epistemology and Metaphysics

CO1.This course helps the students to acquire the basic knowledge of western philosophy namely conditions of propositional knowledge, Rationalism, Empiricism, Kantian theory, theory of causality etc.

CO2.It creates an interest about the concepts of western philosophy in the students' mind.

CC3/GE3: Western Logic

CO1.This course helps the students to be enriched with the power of logical reasoning.

CO2.It enriches the students by providing basic knowledge of Aristotelian logic, Modern logic and inductive logic

SEC A(a): Logical Reasoning and Application

CO1.This course helps the students to know the main objective of logical reasoning to distinguish between good and bad arguments, functional applications of ordinary operative relations between sense organs and objects, application of laws in inductive and deductive reasoning

CC4/GE4: Philosophy of Mind

CO1.This course helps the students to acquire the basic concepts of psychology namely sensation, perception, consciousness, memory, learning, intelligence etc.

SEC B(a): Man and Environment

CO1.The course helps students understand the role and importance of environment inhuman life.

CO2.By studying this course, students will acquire conception about the Indian classical attitude towards environment, respect for nature, Ecofeminism, Deep ecology and its third world critique.

DSE A(a): Ethics: Indian and Western

CO1.The ethical studies i.e. Purusharthas, Buddhistethics, moral and non-moral actions, teleological ethics and theories of punishment provide a sound understanding of morality in the students' mind from the standpoint of both Indian and Western Philosophy

DSE B(a): Applied Ethics and Philosophy of Religion

CO1. This course enriches the students about some concepts of practical ethics namely killing, suicide, euthanasia.

CO2. This course provides the arguments in favour of the existence of God and also the arguments for disbelief in God

CO3. It helps the students to build unprejudiced life in religion

POLITICAL SCIENCE

Name of Course	Course Outcomes
CC1: Political Theory -Concepts	CO1: The course prepares the framework for key concepts such as justice, equality, liberty and fraternity, as well as important political ideologies such as Marxism and liberalism. Students develop a nuanced perspective on the central concepts of world politics. CO2: The course engages students in important political debates (such as, the debate between socialism and liberalism, globalization and localization). Students are able to address key issues from all perspectives, thereby developing a holistic understanding of the world. CO3: The course introduces students to important philosophers and political scientists ranging from John Stuart Mill to Amartya Sen.
CC2: Political Theory -Debates	CO1: Students are able to develop a perspective on the political theory of Karl Marx, and on key concepts such as dialectical and historical materialism, class struggle, and so on. CO2: Students develop an understanding of important concepts such as hegemony, civil society, ideology, and study the works of scholars such as Antonio Gramsci and Louis Althusser. CO3: By the end of this course, students are able to engage with conceptualizations of the state as an apparatus of class exploitation.
CC3: Indian Constitution	CO1: Students develop a thorough understanding of the Indian Constitution, its framework, its structure and its key concepts, which includes fundamental rights and duties. CO2: Students become well-versed in the structures of the Indian government and political system and all aspects of the same (legislature, executive, judiciary). CO3: Students engage with the Constitution as a living

	document and through the study of the history of amendments of the same, develop a perspective on its shortcomings as well as the potential to transform thesame as per the needs of the Indian society.
CC4: Indian Politics1	CO1: Students develop a perspective on the different manifestations of Indian politics – coalition politics, party system, the growth of regionalism, communalism, and so on. CO2: Students learn to engage with various interest groups in Indian politics, such as the business class, the working class, the peasantry, and so on, and their role in Indian politics. CO3: Students become well-versed in movements such feminist movement, environment movement, and human rights movement in India.
CC5: Indian Political Thought-I	CO1:This Course begins with ancient political ideas, particularly Kautilya, the master of statecraft and his theory of Dandaniti, Saptanga and Diplomacy. The course concludes with the political philosophy of thefather of our nation, Mahatma Gandhi. CO2: In tune with the tradition of syncretism in Indian Political Thought, the course contains the Political ideas of Barani and Abul Fazal. Rammohan Roy is discussed thouroughly as the pioneer of indian Liberalism. The ideas and views on nationalism of Bankim Chandra, Swami Vivekananda and Rabindrnath form an essential part of the course. CO3: This course anchors ours students in ancient, medieval and modern traditions of our political thought.
CC6: Comparative Government and Politics	CO1: This Course helps students to grasp the fundamentals of Comparative Government andPolitics. A very useful course for undergraduate students and help them to compare and contrast different political systems like UK, USA, PRC,Switzerland and Bangladesh.

	CO2: It also has theoritical underpinings like S.P. Huntington's views on three waves of democracy, System Approach of David Easton and Stuructural- Functional Approach by Almond and Powell. CO3: After studying this course, students becomes familiar with the political structure of major foreign governments.
CC7: Perspectives on International Relations	CO1: This course examines systematically some relevent concepts and approaches in International Relations like Terrorism, Migration, Environmental problems and hotly debated issues of development. CO2 : Major theories of International Relations like Realism, Neo-realism is dicussed. CO3: India's Foreign Policy, its major phases, Sino-Indian relations, Indo-US relations all are discussed tohelp students understand the role of Indian contemporary politics.
SEC A(1) Democratic Awarness Through Legal Literacy	CO 1: The purpose of this course is to familiarise students with the basic laws relating to criminal jurisdiction like the process of filing a FIR, Arrest, Bail, Search, Seizure and some other offences underthe Indian Penal Code. CO2: Special emphasis is given on personal laws andlaws relating to dowry sexual harrasment and violence against women . CO3: Laws relating to consumer right, RTI, Cyber Crime and Anti Terrorist Laws like POTA, TADA, UAPA etc are also discussed in the context of securityand human rights. CO 4: The study of this course equipts the students tofight for his or her human rights and fights against many social evils.
CC8: Indian Political Thought II	CO 1: This course discusses modern Indian Political Thought particularly M.N. Roy's cocept of radical humanism, socialist ideas of Narendra Dev and

	Rammanohar Lohia and Jay Prakash Narayana. CO2: The views on colonialism and nationalism of Sir Syed Ahmed Khan and Mohammed Iqbal form an essential part of the course. Nehru's ideas on socialism and democracy and Netaji's views on socialism and fascism are discussed. CO3: The contested notions of nation by Savarkar and Jinnah are discussed. Dalit thinkers like Jyotiba Phule, Ambedkar and Pandita Ramabai and her views on social justice are given due consideration. The course outcome is a relevent and analytical study of mainstream ideas in Indian Polity.
CC9 : Global Politics since 1945	CO1: This course examines Cold War and its evolution, emergence of the third world, the Non- aligned movement, its relevance in the post cold warperiod. CO2: It gives an overview of Globalization and themajor institutions of Global Governance like WorldBank, IMF, WTO etc. Regional organizations like ASEAN, SAARC, SAPTA, OPEC, BRICS etc. constitute a part of the course. CO3: The course also contains instructive topics like European Union, Brexit, West Asia and Palestine question.

CC10: Western Political Thought and Theory I	CO1: This course analyses the political philosophy of Plato, Aristotle, Roman Political thinkers, Medieval political thinkers and those of Machiavelli, Luther and Calvin. CO2: Bodin's idea of sovereignty, Hobbes's concept of science of materialistic politics, Locke as the founder of liberalism and Rousseau's view on freedom, GeneralWill and democracy are discussed. CO 3: This course help the students to understand the basic concepts and notions of political philosophy and relate them to political systems accross the world.

SEC 4 B(1) Legilative Practices and Procedures	CO 1: This field enhancement course acquiants student with the functioning of the Parliament and State Assemblies. The course includes relevent aspect of legilative practices and procedures like privileges, immunities of MPs, MPLAD sceme, law making procedures, the functioning of different committies. CO2: It discusses the role of Parliament in controlling government finance and describe powers and functionsof People's Representatives at different tiers of Government like Zila Parisad, Municipal Corporation to Panchayat.
CC 11: Western Political Thought II	CO1: The Course includes Bentham's theory of Utilitarianism, J.S Mill's views on Liberty and Representative government, Hegel's concept of civil society and state and T.H. Green's concept of freedomand obligation. CO2: It also includes basic charataristics of utopian and scientific socialism, varities of Non-Marxist socialism like Fabianism, Syndicalism and Guild Socialism. CO3: The course also includes Anarchism, Cultural Marxism and Post Marxism. After reading this coursethe students will have a broad overview of various school of political thought and it will strengthen his or her foundations about the main currents of political philosophy.

CC 12: Political Sociology	CO1: The course is actually an enquiry into the social bases of politics. Politics does not mean just the formal institutions of government.In this course a student will come to know the social root of politics which includes topic as political culture, political socialization, political participation, political communication, political development and social change. CO2: It problamatizes relations between Gender and Politics, Religion and politics and Military and politics.It also discusses the determinants of the voting behaviour, with special reference to the Indian context.It also traces the relationship between social

	stratification and politics and discusses the role ofcaste, tribe, class and elite. CO3: The overall purpose of the course is to give students a broad analytical conception about political order in changing society.
DSE 5 A(1) Gender and Politics	CO1: This course actually analyses politics from feminist perspectives. It interrogates such concept as patriarchy, sex-gender divide and public private debate. CO2: It discusses the basic features and wave of feminism, traces the history of women movement's of India, sensitizes the students about different types of violence against women, explains the problems face by care and sex worker in short, it provides a gendered discourse about politics.
DSE 5 B(1) Indian Foreign Policy in a Globalising World	CO1: The purpose of this course is to give the studentsa broad overview of the Indian Foregn Policy from the post colonial state to an aspiring global power. CO2: The course also includes India's engagement with USA, Russia and China. India's role in South Asia and its negotiating style and strategis in trade, environment and security regime is also discussed. CO3: The students also come to know India's role inthe contemporary multipolar world. The course is particularly suitable for students appearing in Indian Foreign Service examination.
CC13: Public Administration- Concepts and Perspectives	CO1: This course discusses the nature, scope and evolution of Public Administration and a challenges and responses to it. It also discusses important concept of administration like Hierarchy, Unity of Command, Span of Control etc. It also discusses the impact of Globalization, Liberalization and Privatization on Public Administration. CO2: The course outlines the views of Marx and Weber on Bureaucracy, Ecological Approach to Public Administration. It discusses various administartive processes and discusses public policy, i.e. Definition,

	characteristics, models and policy implementations.
CC14: Administration and Public Policy in India	CO1: The course discusses the continuity and change in Indian administration, discusses the civil service in India, organoization of Union Government and State Government along with the role of District Administration. CO2: The course outlines the structures and functions of local self government after the 73rd and 74th ammendment. It discusses planning as performed by the Planning Commission, National Development Council, District Planning. It alsco focuses on the changing nature of planning. CO3: It deals into financial administration and also the citizens interface with the administration. The course familiarises students with various social welfare policies like MGNREGA, Sarva Shiksha Abhiyan and National Health Mission. CO4: It helps to create socially sensitive and political conscious citizen.
DSE 6 A(4) Understanding Global Politics	CO1: The course discusses the sovereign state system, traces the evolution of the concept of sovereignty and discusses the global economy. CO2: The course focuses on the politics of identity and culture as dividing forces of the world, and draws student's attention to global inequalities like conflict, war and terrorism. CO3: The course focusses on issues of global environment and global civil society. It tries to inculcate cosmoploitan outlook in the students.
DSE 6 B(4) Human Rights in a Comparative Perspective	CO1: The course gives the students grasp of the theory and various institutions protecting the human rights. It discusses the Universal Declaration of Human Rights and the Rights as discussed in National Constitution of South Africa and India.

	CO2: It discusse various issues like tortures in USA and India, surveillance and censorship in context of China and India and terrorism and insecurity of minorities in the USA and India. CO3: The course discusses systemic structural violence in the form of race and caste in South Africa and India, Gender and Violence in the Indian and Pakistani concept and end by discussing Adivasis and aborginals of Australia and India.It aims foster Global political awarness in Students.

SANSKRIT

Name of Course	Course Outcomes
CC1 – Classical Sanskrit Literature (Poetry)	CO1: Develop an introductory knowledge about the history of classical Sanskrit poetry. CO2: Demonstrate a fair knowledge about Kālidāsa, Bhāravi, Bhartṛihari and their works. CO3: Develop a broad sense of Raghva ṁś am, Kirātārjuniyam, Kumārasambhavam and Nītiśatakam. CO4: Develop a brief sense about the characteristics of the Sanskrit Mahākāvya and Śatakakāvya. CO5: Appraise and compare Sanskrit Mahākāvyas with the other forms of poetry.
CC2 – Critical Survey of Sanskrit Literature (Prose)	CO1: Develop an introductory knowledge about the history of Vedic and Classical Sanskrit literature. CO2: Demonstrate ideas about the divisions of Vedas like Samhita, Brāhmaṇa, Āraṇyaka and Upaniṣad. CO3: Recognize the historical and literary importance of the Rāmāyaṇa, Mahābhārata and Purāṇas. CO4: Display a broad knowledge of the characteristics, divisions and the social, economic, political and literary values of Rāmāyaṇa, Mahābhārata and Purāṇas.

CC3 – Classical Sanskrit Literature (Prose)	CO1: Demonstrate an introductory knowledge about the history of Sanskrit prose literature. CO2: Display a fair knowledge about Bāṇabhaṭṭa and Daṇdin and their works. CO3: Develop a broad sense of Kādambarī and Rājavāhanacaritam. CO4: Develop a brief sense about the characteristics of
	the Sanskrit prose, literature and fable literature. CO5: Recognize the characteristics, divisions and the socio-economic, political and literary importance of Pañcatantra Hitopadeśa, Si ṃ h ā sanadv ā tri ṃ śik ā.
CC4 – Self Management in the Gitā.	CO1: Recognize and appraise the construction of the Gitā. CO2: Evaluate the weight and importance of the Gitā in our everyday life. CO3: Demonstrate the idea and procedure of self-management as reflected in the Gitā.

CC-5 Classical Sanskrit Literature (Drama)	CO1: Develop an introductory knowledge about the history of classical Sanskrit Drama. CO2: Demonstrate a fair knowledge about Bhāsa, Kālidāsa, Śūdraka, Śriharṣa, Bhavabhūti And their Works. CO3: Develop a broad sense of Svapnavasavdattam, Abhijñanaśakuntalam and Naiṣadhīyacharitam. CO4: Develop a brief sense about the Characteristic of Sanskrit Dṛśyakāvya and its inner Conception such as the society, Marriage, tax system, poetic excellence. CO5: Appraise and compare Sanskrit Driśhyakāvya With the other forms of Drama.
CC6: Poetics and Literary Criticism	CO1: The study of Sāhityaśāstra (Sanskrit Poetics) embraces all poetic arts and includes concepts like alaṅkāra, rasa, rīti, vakrokti, dhvani, aucitya etc. CO2: Students will be able to engage with topics such as the definition of poetry and divisions, functions of word and meaning, theory of rasa and alaṁkāra (figures of speech) and candas (metre), etc. CO3: Students will develop the capacity for creative writing and literary appreciation.
CC7: Indian Social Institutions and Polity	CO1: Social institutions and Indian Polity have been highlighted in Dharma-śāstra literature. CO2: Students will be acquainted with various aspects of social institutions and Indian polity as propounded in the ancient Sanskrit texts such as Saṁhitās, Mahābhārata, Purāṇa, Kauṭilya's Arthaśāstra and other works known as Nītiśāstra.

CC8: Indian Epigraphy, Paleography and Chronology	CO1: Students will be acquainted with the epigraphical journey in Sanskrit, the only source which directly reflects the society, politics, geography and economy of the time. CO2: The course also seeks to help students to know the different styles of Sanskrit writing.
CC9: Modern Sanskrit Literature	CO1: The purpose of this course is to expose students to the rich & profound tradition of modern creative writing in Sanskrit, enriched by new genres of writing.
CC10: Sanskrit and World Literature	CO1: This course is aimed to provide information to students about the spread & influence of Sanskrit literature and culture through the ages in various parts of the world in medieval & modern times.
CC11: Vedic Literature	CO1: This course on Vedic literature aims to introduce various types of Vedic texts. CO2: Students will also be able to read one Upaniṣad, namely, Muṇḍaka, where primary Vedānta-view is propounded.
CC12: Sanskrit Grammar	CO1: This course is aimed to provide information to students about the various Grammatical Concept of the Saṃjñā Sūtra, Vārtika, Bhāśya, Karmapravacanīya, Nipāta, Gati, Upasarga, Guṇa, Vṛddhi, Ktin, Ghi, Ghu, Nadī, Upadhā, Samprasāraṇa.
CC13: Indian Ontology and Epistemology	CO1: This course aims to get the students acquainted with the cardinal principles of the Nyāya-Vaiśeṣika philosophy through the Tarkasaṁgraha and to enable

	students to handle philosophical texts in Sanskrit. CO2: It also intends to give them an understanding of essential aspects of Indian Philosophy.
CC14: Sanskrit Composition and Communication	CO1: This paper aims at teaching composition and other related information based on Laghusiddhāntakaumudī Vibhaktyartha Prakaraṇa.
DSE-1: Darsana	CO1: This paper aims to get the students acquainted with the cardinal principles of the Nyāya-Vaiśeṣika philosophy through the Tarkabhasa and Saptapadārthī to handle philosophical text in Sanskrit. CO2: The Vivekacudāmani gives them a spiritual idea.
DSE-2: Kavya	CO1: The study of Sāhityaśāstra (Sanskrit Poetics) embraces all poetic arts and includes definition of Kāvya, classification of Kāvya, K ā vyado ṣ a, K ā vyagu ṇ a, Ś abda ś akti, Rasa.
DSE-3: Vyakara	CO1: This course is aimed to provide information to students about the various Grammatical Concept of the Strīpratyaya, TiṅantaPrakaraṇa - Ajanta Puṃliṅga of Siddhāntakaumudī.
DSE – 4: Veda	CO1: This course deals with Eastern & Western interpretation of the Veda. CO2: Students will also be able to read TaittiriyopaniṣadŚikṣāvallī and Muṇḍakopaniṣad, AitareyaBrāhmaṇa

MUSIC

CC1/GE1

1. Ability to sing drut compositions with basic elaborative techniques.

2. Ability to gain understanding of vocal dynamics.

3. To have a greater command and subtle understanding about notions of gayaki and the various techniques of elaborating a bandish/composition through alapa, tana.Students will be able to sing Bengali Folk songs, NazrulGeetis, patriotic song which was composed by Rabindranath Tagore .

4. They will also sing old Bengali songs of other famous Bengali composers.

5. Ability to show basic Thekas of the prescribed Talas by hand beats.

CC2/GE2

1. Ability to sing simple dhrupad compositions.

2. Enhanced understanding of the khayal form,

3. Ability to recite prescribed talas.

4. By this the students will be habituated with different type of Taalas.Ability to show basic Thekas of the prescribed Talas by hand beats.

5. They also sing Puratani Bengali songs or Shyamasangeet , Modern Bengali song of other famous Bengali composer(Gouri Prasanna Majumder and Akhil Bandhu Ghosh).

CC3/GE3

1. Ability to understand nuances of Raga and Tala.Ability to sing basic composition in prescribed composer. Learning this course students will be able to sign other patriotic songs which was composed by Rabindranath Tagore.

2. Students will also sing Kirtan, Modern Bengali song of other famous Bengali composers.

3. Ability to show basic Thekas of the prescribed Talas by hand beats.

CC4/GE4

1, Students will also sing Modern Bengali song of other famous Bengali composer.

2, Ability to show basic Thekas of the prescribed Talas by hand beats.

3, Learning this course students will be able to sing Hindustani Carnatic

4. Baul, Kheyal and Kirtan of Bengali songs which were composed by Rabindranath Tagore.

DSE-A

1. At the end of the course the students will be able to understand different Patriot songs and Devotional songs. Students can understand the service of freedom fighters.

2. Get interest to learn many other Patriotic songs. Sing the Patriotic song and other patriotic songs in different languages.

DSE-B

1. Knowledge about a different genre in Regional songs of Assam, Gujarat, Rajasthan, Panjab, Maharashtra.

2. Learning this course students able to sing other Folk style of Regional songs

JOURNALISM

Semester – 1

CC/GE 1

1. Basics of Journalism are taught in this semester.

2. The students of Journalism and Mass Communication, in the beginning must understand the Print Medium Journalism. Reporting, Editing, and all kinds of Journalistic writings and the personnel working in the print medium give them a clear idea about Newspaper organization and its functions which will create a base for their further study in this subject.

Semester -2

CC/GE 2

1. This paper deals in Media Management. Since these students are pursuing the course in General, they should have a comprehensive idea about the subject within a very short period of time. The Media Management gives them a thorough idea about the Ownership of the media, how they are run, what are their sources of revenue and also the printing of the papers. This knowledge helps them in future, if any of them wants to join the management of media as a profession.

Semester -3

CC/GE 3:

1. Advertising and Public Relations are two separate as well as comprehensive professional courses in Mass Communication. The students who want to join profession only after graduation, for them this paper would be very useful. They can gather the concept of advertising and public relations and can prepare themselves accordingly to get into the industries.

2. The practical portion in this paper helps the students to develop skill in both the fields. Training in the college helps them understand the trend of these professions and they can be well aware of what to do and how, when they will go for the profession.

SKILL ENHANCEMENT COURSE

There are 4 options in this paper out of which the students have to choose one either in semester 3 or semester 5.

Journalistic Writing – This helps in understanding all sorts of writings that come under the purview of Journalism. Studying this paper and practicing the students would be able to develop the skill in writing which will definitely help them in their career as Journalists.

Newspaper Designing – This is a technical matter and purely a desk job. Those who have an aptitude for designing and working with computer software can take up this option. This is going to help them if theywant to go for Desk job in newspaper.

Film Appreciation - Critics of films are widely accepted in any Media, especially in the Print Medium. The students who want to become film critics are going to get sheer help from this paper where they will learn the appreciation of films, understanding the technical side of it and how to put it on the paper.

Print Advertising – Advertising is a very lucrative profession for those who have a creative bent of mind. If the students study the Print advertising thoroughly, there is a fair chance for them to join the ad industry as the print medium is still a popular medium in India.

Semester -4

CC/GE 4

1. In this semester the students would learn The Press Laws and Indian Constitution. In order to work as a Journalist, the students must know the laws relating to press.

2. Knowing the Constitution, its framework, provisions, freedom of the press and many other relevant matters would help them in theirfuture life.

SKILL ENHANCEMENT COURSE

The students have to opt any one out of the four subjects either in semester 4 or semester 6.

1. Documentary Script Writing – This is another important area in Mass communication. Many a students have an aptitude in film and it is rather easy to start with Documentary. Not that all of them would be the Directors. Writing script for Documentaries is yet another area where people can have a good career. In this paper the training is imparted to understand and write script for documentary films.

2. Radio – Television Script Writing – Same as the previous one, people can also pursue their career in electronic media as script writers. Radio and TV being the major electronic media there are many scopes for the script writers. This paper makes the students understand the scripts in electronic media, both of news and other programmes, and helps them in practicing them in order to get a help in the professional fields.

3. Anchoring – The common belief is those who have a good voice and modulation can be a good anchor. This is rather a myth. People need training and expertise

to go for his profession. Studying this paper makes the students understand all the

pros and cons of anchoring. They are also trained accordingly to become good anchors.

4. Media Presentation – Students with Mass Communication background can join the corporate sectors in many areas like Corporate Communication, Corporate Marketing etc. In such professions, presentation is a must. Hence if the students take up this course they can develop their skill in making presentation, planning, creating strategies etc., that would definitely help them in their career.

Semester -5

DISCIPLINE SPECIFIC ELECTIVE A – There are two options out of which the students have to choose on

1.Film Studies – Film being an important medium of mass communication and the huge Film Industry of India with immense scope have created a lot of interest about Films. Students, studying this paper, can develop a good concept of films and their technical sides which can be of help to them in the entertainment industry.

2.Specialized Writing – This paper gives a clear idea about specialized writings in any Media as well as advertising, public relations etc. helping the students in developing multifarious skills. This can help them in getting into the professions. Preparation and skill development in student life can give them good confidence in their future life.

Semester 6

DISCIPLINE SPECIFIC SKILL B - Here are two options out of which the students have to choose one.

1. Broadcasting Media – The Broadcasting or the electronic media are the major media in the world. If the students have to pursue their career in this media they must have a good concept about this media, both in national and international field. The technical training also is of great help in pursuing their careers.

2. International Relations – All the students will not go to profession immediately after graduation. Some of them may go to higher studies and even in the field of research. In such cases the knowledge of this paper would help them a lot. A profound knowledge in International Relation is also an asset to the Working Journalists and Communicators.

PHYSICAL EDUCATION

(CC -1)

Foundation and History of Physical Education

Paper Names	Course Outcomes
CC- GE -1.1 Introduction	• Understand concept of aims, objectives and misconception in physical education.
CC-GE -1.2 Foundation Of Physical Education	• Know the origin of physical education.
CC -GE -1.3 History Of Physical Education	• Know the Olympic organising various sports activities.
CC -GE -1.4 Yoga Education	• Understand the basic concept of yoga. • Promote the awareness of health through yoga. • Analyse the technique of body posture to bring out healthy change.

CC -2

Health Education, Physical Fitness and Wellness

Paper Names	Course Outcomes
CC- GE -2.1 Introduction	• Understand the basic principles of health education.
CC-GE -2.2 Health Problem in India -Prevention and Control	• Student will be able to explain the process to become physically fit. • Student will also understand how food affects your personal well being.
CC -GE -2.3 Physical Fitness and Wellness	• Study how to frame diet charts. • Gain knowledge about the nutrition.
CC -GE -2.4 Health and First-aid Management	• To know and understand the science, methods, techniques on which physiotherapy based.

CC 3

Anatomy, Physiology and Exercise Physiology

Paper Names	Course Outcomes
CC- GE -3.1 Introduction	• Understanding the basic principles of anatomy, and physiology
CC-GE -3.2 Musculo -Skeletal System	• Student will be aware of the anatomical structure and physiological function of the human body
CC -GE -3.3 Circulatory System	• Known to Blood Circulation Mechanism, Heart Rate, Pulse Rate, Stroke Volume, Blood Pressure
CC -GE -3.4 Respiratory System	• Understand the structure and function of human respiratory organs.

Sec-1

Track and Field

Paper Names	Course Outcomes
SEC- GE -3.1 Track Event	• Student to learn the basic skill and techniques of sports and games
SEC-GE -3.2 Field Event	• Student will apply the mechanical principle on the technique of sports skill • Understand the rules of the games and sports

CC 4

Psychology and Sociology in Physical Education

Paper Names	Course Outcomes
CC- GE -4.1 Introduction	• Explain group mechanism and group psychology in a sports content
CC-GE -4.2 Learning	• Students will develop practical, theoretical skill in physical education.
CC -GE -4.3 Psychological Factor	• Reflect upon motivation psychology as applied to sports activities
CC -GE -4.4 Sociological Aspect	• Demonstrate the ability to discuss sociological theories, concepts, and ideas in large and small group

SEC -4.1

Gymnastics and Yoga

Paper Names	Course Outcomes
SEC- GE -4.1 Gymnastics	• Explore to techniques of lossening the joint andsummersault.
SEC-GE -4.2 Yoga	• Understand the various path of yoga and astanga yoga

DSE -5

Management in Physical Education and Sports

Paper Names	Course Outcomes
DSE- GE -5.1 Introduction	• Learn about sports management and how to use strategic planning, financial management, and management of human resources.
DSE-GE -5.2 Tournaments	• Able to understand the rules of the games and sports. • Make a few changes to the officiating techniques and try them out.
DSE-GE -5.3 Facilities and Equipment	• To learn about the different kinds of playing fields, sports equipment, and their benefits.
DSE-GE -5.4 Financial Management	• By studying this course, the students would be able to understand the needs and functions of financial management.

SEC -5.1

Ball Games

Paper Names	Course Outcomes
SEC- GE -5.1 Ball Games	• To learn how to play the most important games well. • To understand the game rules for efficient officiating.

DSE -6

Sports Training

Paper Names	Course Outcomes
DSE- GE -6.1 Introduction	• Training is a science based on how well it works.
DSE-GE -5.2 Methods of Training and Conditioning in Sports	• Describe the various means and strategies utilised in various training.
DSE-GE -5.3 Training Load and Adaptation	• Assess the various periodization strategies for the improvement of performance.

DSE-GE -5.4 Training Technique	• Develop a variety of training facilities and plans forbeginner to advanced performers.

SEC -6.

Indian Games and Rackets Sports

Paper Names	Course Outcomes
SEC- GE -6.1 Indian Games	• To know the optimal drills for skill development.
SEC-GE -5.2 Rackets Sports	• To learn the game rules for efficient officiating.

MATHEMATICS

CC1: Calculus, Geometry & Vector Analysis	CO1 - Realizing the concept of differentiation and integration. CO2 - Applications of differentiation include measuring velocity, acceleration, etc. CO4 - Applications of integration include estimating areas, volumes, etc. CO5 - Introducing the concepts of distance between two points, slope and transformations of origin. CO6 - Visualize various forms of straight lines, planes, conic sections. CO7 - It is used widely in Mechanics and Astronomy. CO8 - To study vectors triple product, equations and its applications in geometry and mechanics. CO9 – Basic knowledge of limits and continuity of vector functions and also its differentiation and integration.
CC2: Algebra	CO1 - Understanding of complex numbers, theory of equations, inequality and linear difference equations. CO2 - Linear equations are vital for solving any differential equations. CO3 - Many areas of Numerical analysis depend upon linear equations. CO4 - Specific fields of applications are computer graphics, Cryptography etc. CO5 - Introduce relation, mapping and some properties of positive integers. CO6 - Understanding of matrix operations further its applications to solve linear equations
CC3: Real Analysis	CO1 - It is an important part of pure mathematics to increase the knowledge of real numbers. C02 - Understand the mathematical operations, ordering, boundedness, dense, limiting, closure and compactness properties of real numbers. C03 - Introduce the knowledge of Bolzano- Weirstrass theorem. C04 - To study sequences and its boundedness and convergence property. C05 - To study series of real functions, Fourier series, half range series.

CC4: Group Theory-I	CO1 - Algebra is science of operations. C02 - To understand the concept of groups, normal subgroups and permutations. CO3 - Visualize the homomorphism and isomorphism concept.

	CO4 - It is widely used in Computer science and I.T.
CC5: Theory of Real Functions	CO1 – Understand the concept of limits and continuity of functions. CO2 – Then clear the concept of differentiability of functions. CO3 – Introduce the concept of boundedness, discontinuity, uniform continuity. CO4 – Introduce the Darboux theorem, Rolle's theorem, Mean value theorems of Lagrange and Cauchy and applications. CO5 – Conditions of local extreme points an applications in geometry.
CC6: Ring Theory & Linear Algebra-I	C01 - To under the structure of ring and integral domain, quotient and polynomial rings. C02 - To learn about vector spaces, it basis and dimension. C03 - To know about eigen values and eigen vectors. CO4 - To study linear transformations. CO5 - It is widely used in Computer science and I.T.
CC7: Ordinary Differential Equation & Multivariate Calculus-I	CO1 - To understand the importance of ordinary differential equation. CO2 - It is used in solving many problems o engineering and physics. CO3 - To study existence and uniqueness about solutions. C04 - To learn about exact differential equations and various types. CO5 -To learn about second order linear differential equations. CO6 - To study series solution method to solve differential equations. CO7 – Limit and continuity of functions of two or more variables and their applications in optimization problem
CC8: Riemann Integration & Series of Functions	CO1 – To learn basics of Reimann integratio and fundamental of Integral calculus. CO2 – Basic concept of improper integral and its convergency test. CO3 – Knowledge of Beta and Gamma functions CO4 - To learn mean value theorem of integral calculus. CO5 – To know basics of sequence of functions, boundedness, continuity, differentiability and integrability of it. CO6 - To understand the importance of Legendre polynomials.

	CO7 – Concept of series of functions, fundamental theorem of power series and Fourier series are introduced
CC9: Partial differential equation & Multivariate Calculus-II	CO1 – To understand the importance of partial differential equations. CO2 - To study about linear partial differential equations. CO3 - To learn about the simultaneous differential equations. CO4 - To understand the methods of solution for total differential equations. CO5 - To study properties of Beta and Gamma functions. CO6 - To learn about differentiation and integration of vectors. CO7 - To understand the concepts of gradient divergence and curl. CC8 -To know the importance of Stokes theorem, Gauss divergence theorem and green's theorem to interchange among the line, surface and volume integration.
CC10: Mechanics	CO1 - It gives an introductory knowledge of relative motion, inertial, non-inertial reference frames, the motion of mechanical systems and their degrees of freedom. CO2 - Newton's laws of motion and conservation principles. CO3 - It gives a vast idea to solve problem particle dynamics in linear, planar system. CO4 - An introductory knowledge of linear and angular momentum, the energy principle, collusion of bodies.
CC11: Probability & Statistics	CO1 - To learn classical probability, and different distributions. CO2 - It is used in real life events which follows new distributions CO3 - Understanding the process of sampling estimation of parameter of population. CO4 - To learn to test statistical hypothesis and its various aspects. CC5 - To understand various statistical measures.
CC12: Group Theory-II & Linear Algebra-II	CO1 - To understand the concept of automorphism, external direct product. CO2 – Visualize inner product spaces and norms, Bilinear and quadratic forms. CO3 – Introduce the concept of Diagonalisation of symmetric matrices, Hessian matrix, Sylvester's law of inertia. Index, signature. CO4 - To understand the concept of dual

	CO5 - Eigenspaces of a linear operator, diagonalizability, and canonical forms also introduce.
CC13: Metric Space & Complex Analysis	CO1 - To learn properties of complex numbers. CO2 - To understand the use of complex numbers in the field of Calculus. CO4 - To learn the importance of analytic functions, singularities and residues. CO5 - To apply the knowledge of residues in complex integration. CO6 - It is used in fixed point theorem and mapping principles. CO7 - To study continuous functions on metric spaces, connected metric spaces, complete metric spaces and compact metric spaces.
CC14: Numerical Methods	CO1 - To learn how to interpolate the given set of values. CO2 - Introducing the rounding numbers, significant digits and error propagation. CO3 - It is used for solving a system of linear equations, the roots of transcendental and algebraic equations. CO4 - To understand the curve fitting for various polynomials. CO5 - To learn numerical solution of differential equations. CO6 - To learn numerical differentiation and integration. CO7 - To learn about interpolation polynomials. CO8 - It is used for solving a system of equations and used in all branches of engineering.
DSE - A(1)-1: Advanced Algebra	CO1 - To understand the concept of group actions, Generalized Cayley's theorem, Index theorem. CO2 – Introduce Sylow's theorems and consequences. CO3 – Basic concepts of Principal ideal domain, principal ideal ring, prime element, irreducible element, greatest common divisor, least common multiple. CO4 – To learn polynomial rings, division algorithm and consequences. CO5 – To know basics of Ring embedding and quotient field.

DSE - B(1)-2: Linear Programming & Game Theory	CO1 - Optimization techniques is a branch of Operations Research. CO2 - It deals with minimization of cost or maximization of profit. CO3 - It is used in Production engineering, Mathematics of finance, Networking, etc.

	CO4 - To study linear programming , problems transportation and assignment problems. CO5 - To know the fundamentals of game theory. CO6 - It introduces the simplex method to solve various problems.
DSE - A(2)-2: Mathematical Modelling	CO1 - To know Method of changing equations from one form to another easier form CO2 - It is used to solve both ordinary and partial differential equations. CO3 - Applications are in all branches of engineering. CO4 - To learn properties of Laplace transforms. CO5 - To learn properties of inverse Laplace transforms. CO6 - Overview of optimization modelling and linear programming model: geometric solution algebraic solution, simplex method, sensitivity analysis CO7 - It gives some introductory concept of Monte Calo simulating modelling. CO8 – Introduce basic models of queuing theory.
DSE-B(2)-1: Point Set Topology	CO1 - To understand the basics of General Topology. CO2 - To know the generalisation of metric space. CO3 - To study open sets, closed sets, dense sets, compactness, connectedness, nature of continuity in a generalised set up
SEC – A: C Programming Language	CO1 - It introduces the basic ideas of C program. CO2 - It helps to write a C program using code. CO3 - It helps to solve numerical methods using e programming.
SEC – B: Scientific computing with SageMath & R	CO1 - To know basics ideas how to use thes softwires. CO2 - Some useful commands to do some basic maths, plot easily. CO3 - It helps to solve some complex numerical problems using program code.

CHEMISTRY

CC-1

CO-1: To know extra nuclear structure of atom

CO-2: To understand acid base reactions

CO-3: To know the basic concepts of redox reactions

CO-4: To learn the basics concepts of organic chemistry specially on chemical bonding and physical properties

CO-5: To study the estimation of ions or salts by acid-base titration method and oxidation-reduction titration method

CO-6: To learn experimentally about the separation of compounds from a solid binary mixture by using common laboratory reagents

CC-2

CO-1: To understand the basic concept of kinetic theory of gases and know how to solve numerical problems related to that topic.

CO-2: To learn the transport processes of liquids and gases.

CO-3: To understand rate laws, rate equations of different types of reactions, determine rate constant values, order of reactions, effect of temperature and other factors on reaction rate, homogenous catalysis, catalytic effect on reaction rate, equations related to chemical catalysis

CO-4: To learn the basic concepts of Stereochemistry

CO-5: To understand the formation and stability of reaction intermediates and their electrophilic and nucleophilic behavior.

CO-6:To study the kinetics of decomposition of H2O2 , acid-catalyzed hydrolysis of methyl acetate, viscosity measurement of unknown liquids, measurement of solubility of sparingly soluble salts.

CO-7: To understand experimentally how to determine the boiling points of organic liquid compounds.

CC-3

CO-1: To learn stereochemistry of chiral compounds arising due to presence of stereo-axis; concept of prostereoisomerism and concept of conformations of stereoisomers.

CO-2: To understand reaction kinetics, reaction thermodynamics and tautomerism of organic compounds.

CO-3: To know the concept, types, reaction mechanism and examples of elimination, free-radical and nucleophilic substitution reactions.

CO-4: To learn experimentally how to synthesize, calculate the yield and determine the melting point of pure organic compounds in the laboratory

CC-4

CO-1: To learn about the basic concepts and types of chemical bonding, laws, rules and equations for formation of chemical bonds, solubility, hybridization and dipole moment of molecules.

CO-2: To study the modern approaches of chemical bonding (Molecular Orbital Theory, Metallic Bonding conept, Role of weak intermolecular forces)

CO-3: To understand about the concept of radioactivity and radioactive compounds, nuclear reactions, artificial radioactivity, radiocarbon dating, hazards of radiation and safety measures.

CO-4: To know experimentally how to estimate the percentage of chlorine in bleaching powder; vitamin C; arsenic and antimony in a sample by iodimetric titration method. Students can also learn how to estimate Cu in brass, Cr and Mn in steel and Fe in cement.

CC-5

CO-1: To learn in detail about the first and second laws of Chemical Thermodynamics and the related terms; to get an idea about thermo-chemistry and thermodynamic relationships and system of variable compositions.

CO-2: To gain vast knowledge on chemical equilibrium and electrochemistry.

CO-3: To learn experimentally how to do the potentiometric and conductometric titrations of different compositions, determine the Ka of weak acid and heat of neutralization of a strong acid by a strong base.

CC-6

CO-1: To study in detail about the modern periodic table, physical and chemical properties of the elements along a group or period, factors influencing those properties, relativistic effects and inert pair effect.

CO-2: To study the chemistry of s and p block elements including noble gases and their compounds in detail.

CO-3: To learn about inorganic polymers in detail

CO-4: To know the meaning of various terms involved in co-ordination chemistry, Werner’s theory for complex formation, structural and stereoisomerism of coordination complexes.

CO-5: To learn the complexometric and gravimetric estimation of different ions, chromatographic separation of (i) Ni (II) and Cu (II) ions, (ii) Fe (III) and Al (III) ions.

CC-7

CO-1: To learn in detail about the synthesis, properties, chemical reactions and reaction mechanisms of alkenes and alkynes

CO-2: To understand about different types of electrophilic and nucleophilic aromatic substitution reactions, reaction intermediates and their mechanisms.

CO-3: To study the properties and reactions of carbonyl compounds and corresponding reaction mechanisms.

CO-4: To learn preparations, reactions and corresponding reaction mechanisms of organometallic compounds.

CO-5: To study experimentally the qualitative detection of solid and liquid organic compounds. CO-5: To learn experimentally the quantitative estimation of organic compounds by titration method

SEC-A SEC-2. ANALYTICAL CLINICAL BIOCHEMISTRY

CO-1: Helps to understand about the preparation, structures, reactions and biological importance of carbohydrates, proteins, enzymes, lipids and lipoproteins.

CO-2: To know the biochemistry of different diseases through a diagnostic approach by blood and urine analysis.

CO-3: To learn how to isolate proteins and how to perform the qualitative estimation of carbohydrate, proteins and lipids.

CO-4: To study the quantitative estimation of carbohydrate, cholesterol, nucleic acids, determination of the iodine number of oil and saponification number of oil.

CC-8

CO-1: To understand in detail about the synthesis, separation, properties, identification, chemical reactions and their corresponding mechanism of nitrogen containing compounds.

CO-2: Discussion about different kinds of rearrangement reactions.

CO-3: Helps to know the logic of organic synthesis

CO-4: To study UV-Visible, IR and NMR spectroscopy in detail.

CO-5: Helps to know experimentally the qualitative analysis of single solid organic compounds

CC-9

CO-1: Helps to understand about the applications of Thermodynamics in Colligative Properties and Phase Equilibrium

CO-2: To study the fundamentals of Quantum Mechanics

CO-3: Helps to know the Bravais Lattice and Laws of Crystallography, Crystal Planes and Specific Heat of Solid

CO-4:To know experimentally how to study phase diagram of a Phenol-Water system, kinetic study of inversion of cane sugar, determination of partition co-efficient value, pH of an unknown solution and pH metric titration of an acid against strong base.

CC-10

CO-1: Helps to understand about the structures, stability, colour, magnetism and Orgel diagram of the co-ordination compounds on the basis of modern concepts of chemical bonding.

CO-2: To study the chemical and physical properties of d and f Block elements and their compounds.

CO-3: To learn the reaction kinetics and mechanisms of inorganic reactions.

CO-4: To study experimentally how to synthesize inorganic complexes and determine the λmax values of inorganic complexes.

CO-5: To calculate the 10 Dq value by spectrophotometric method

SEC-B SEC-3. PHARMACEUTICALS CHEMISTRY

CO-1: Helps to understand about the drug discovery, design and development of representative drugs of the following classes: Antipyretic, Analgesics, Antiinflammatory, Anti-bacterial, Antifungal, Antiviral, Antibiotics, Anti-laprosy, Central Nervous System agents, HIV-AIDS related drugs

CO-2: To know about aerobic and anaerobic fermentation, importance of Vitamins and Amino acids, synthesis of Penicillin, Cephalosporin, Chloromycetin, Streptomycin and their role as an antibiotic.

CO-3: To learn experimentally how to prepare aspirin in the laboratory and how to analyze it.

CO-4: To learn experimentally how to prepare magnesium bisilicate in the laboratory.

CC-11

CO-1: Helps to understand the fundamental concept, basic terms, derivation and application of Quantum Mechanics

CO-2: To know about the necessary laws, rules, terms, expressions and derivations statistical thermodynamics

CO-3: To learn laws, rules and equations for numerical analysis of Roots of Equation and Least-Squares Fitting.

CO-4: To study about the Computer Programming on Roots of equation, Numerical differentiation and Numerical integration.

CC-12

CO-1: To learn in detail about the synthesis, properties, chemical reactions and reaction mechanisms of polynuclear hydrocarbons and their derivatives.

CO-2: To study the chemical reactions, properties and synthesis of heterocyclic compounds.

CO-3: To know in detail about the stereochemistry, properties and chemical reactions of alicyclic compounds.

CO-4: To learn the mechanism, stereochemistry and regioselectivity of pericyclic reactions.

CO-5: Helps to understand about the classification, structure, properties, reactions and use of carbohydrate molecules.

CO-6: Deals with the synthesis, structure, properties, chemical and biological reactions of amino acids, peptides and nucleic acids.

CO-7: To learn experimentally how to separate molecules by chromatographic methods

CO-8: To study how to analyze the Organic compounds by spectroscopic techniques.

DSE A-2. APPLICATIONS OF COMPUTERS IN CHEMISTRY

CO-1: Helps to understand about the basics of computer programming (FORTRAN), creating and application of spreadsheet software (MS Excel)

CO-2: Helps to know about statistical data analysis.

CO-3: To learn how to prepare graphs by using spreadsheet, help to determine vapour pressure, rate constant, equilibrium constant, molar extinction coefficient value, concentration of ions at equilibrium and molar enthalpy of vapourisation.

CO-4:To study about the Acid-Base Titration Curve, Plotting of First and Second derivative Curve for pH metric and Potentiometric titrations, Calculation and Plotting of a Precipitation Titration Curve with MS Excel, Michaelis-Menten Kinetics for Enzyme Catalysis using Linear and Non - Linear Regression.

B-1. INORGANIC MATERIALS OF INDUSTRIAL IMPORTANCE

CO-1: Helps to understand about the manufacture, properties, compositions, classes and applications of industrially important materials such as ceramics, glasses, cements, fertilizers, surface coating materials and batteries.

CO-2: To know about alloys, manufacture of steel, composition and properties of different types of steels.

CO-3: To learn about the general principles, properties, classification, industrial use, deactivation and regeneration of catalysis.

CO-4: Helps to understand about the preparation and explosive properties of organic and inorganic explosives and the basic idea of rocket propellant.

CC-13

CO-1: To study the Theoretical Principles in Qualitative Analysis

CO-2: To learn about Bioinorganic Chemistry and Organometallic Chemistry

CO-3: To know about the catalytic role of organometallic compounds in different types of industrial processes.

CO-4: To study experimentally the qualitative detection of known and unknown radicals and insoluble materials in a mixture.

CC-14

CO-1: To learn in detail about molecular spectroscopy.

CO-2: To understand about the basic principles and laws of Photochemistry and also get idea about the theory of reaction rate.

CO-3: To know details about surface energy and surface tension; Classification, Adsorption Isotherms and applications of Adsorption; Classification, rules and properties of Colloids.

CO-4: To learn about the fundamental concepts, important equations, properties and applications of polarizability and dipole moment.

CO-5: To know how to determine surface tension of a liquid; Indicator constant of an acid base indicator; pH of an unknown buffer solution and CMC of a micelle experimentally.

CO-6: To study the kinetics of $K_2S_2O_8$ + KI reaction and Verification of Beer and Lambert's Law for $KMnO_4$ and $K_2Cr_2O_7$ solution experimentally.

DSE A-3. GREEN CHEMISTRY AND CHEMISTRY OF NATURAL PRODUCTS

CO-1: To learn about green chemistry and its necessity.

CO-2: To study about the principles of green chemistry and designing the green synthetic routes.

CO-3: To know about the examples of green reactions and future trends in green reaction.

CO-4: To learn the synthesis, psychological properties, isolation medicinal importance and other synthetic use of terpenes and alkaloids

CO-5: To learn how to perform green synthesis of a number of organic compounds in the laboratory.

B-4. DISSERTATION

CO-1: To know how to do research work and write a review rticle on a particular field/topic as assigned by the teacher

CO-2: To know how to handle the technical devices for presenting research work

COMPUTER SCIENCE

Computer Science General SEM-1 / MDC SEM-1 & MDC SEM-3

- To understand basic number systems, codes and logical gates.
- To understand the concepts of Boolean algebra.
- To understand the use of minimization logic to solve the Boolean logic expressions.
- To understand the design of combinational and sequential circuits.
- Creating Professional-Looking Documents.
- Organizing and Analyzing Data in Excel.
- Creating Engaging Presentations.
- Collaborating with Classmates and Teachers.
- Creating Professional Documents in Word.
- Analyzing and Visualizing Data in Excel.

MDC SEM-5

- Learn to research new methods of development in web applications and programming languages. Prepare mock-ups and storyboards for a web development project. Consult with clients to develop and document web site requirements. Demonstrate communication skills, service management skills, and presentation skills.

Computer Science General SEM-2 / MDC SEM-2 & MDC SEM-4

- Assess how the choice of data structures and algorithm design methods impacts the performance of programs. Choose the appropriate data structure and algorithm design method for a specified application. Write programs using object- oriented design principles.
- Ability to define and manage data structures based on problem subject domain. Ability to work with textual information, characters and strings. Ability to work with arrays of complex objects. Understanding a concept of object thinking within the framework of functional model.

Computer Science General SEM-3

- Computer Organization and Architecture Tutorial provides in-depth knowledge of internal working, structuring, and implementation of a computer system. Whereas, Organization defines the way the system is structured so that all those catalogued tools can be used properly.

Python

- Python Is Beginner-Friendly.
- Python Is Versatile. ...
- Python Developer Roles Are in High Demand. ...
- Python Boasts a Supportive Community.
- Python Is the Fastest-Growing Programming Language.
- Top 3 Uses of Python i. Data Science, ii. Web Development, iii. App Development

computer networks

- Recognize computer networks.
- List computer network topologies.
- Explain each computer network topology physically or logically.
- List required hardware to constitute computer network.
- Explain the mission of each computer network.
- Recognize essential computer netwok protocols.

Computer Science General SEM-4

Operating System

- Know basic components of an operating system. comprehend how an operating system virtualises CPU and memory. discuss various scheduling and swapping policies. It manages the computer's memory and processes, as well as all of its software and hardware. It also allows you to communicate with the computer without knowing how to speak the computer's language. Without an operating system, a computer is useless. Watch the video below to learn more about operating systems shell scpts
- Students will be able to design the solutions for a given problem using the concepts of shell scripts. Understand the fundamentals process and basics perl commands for scripting. Able to analyze the basic commands of process and commands used in perl scripting.

Software Engineering

- How to apply the software engineering lifecycle by demonstrating competence in communication, planning, analysis, design, construction, and deployment
- An ability to work in one or more significant application domains
- Work as an individual and as part of a multidisciplinary team to develop and deliver quality software

- Demonstrate an understanding of and apply current theories, models, and techniques that provide a basis for the software lifecycle
- Demonstrate an ability to use the techniques and tools necessary for engineering practice

Computer Science General SEM-5

- Students can apply knowledge of computing and mathematics appropriate to the discipline.
- Students can analyze a problem, and identify and define the computing requirements appropriate to its solution.
- Students can design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
- Students can use current techniques, skills, and tools necessary for computing practice.
- An ability to use and apply current technical concepts and practices in the core information technologies.
- An ability to identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems.

Computer Science General SEM-6

- Codes basic programs in Java programming language.
- Prints to the screen in Java language. Makes relational operations in Java.
- Constructs loops in Java.
- Defines arrays in Java and uses them.
- Uses objects and classes.Declares objects and classes.
- Distinguishes classes and objects.

MDC SEM-6

- Converse in basic computer terminology.
- Formulate opinions about the impact of computers on society.
- Possess the knowledge of basic hardware peripherals.
- Know and use different number systems and the basics of programming.
- Solve basic computational problems with C language.

BOTANY

Name of Course	Course Outcomes
PHYCOLOGY AND MICROBIOLOGY Theory BOT-A-CC-1-1-TH	CO1: Learn the habitats, cell structures, life histories of algae which are the food base for majority of aquatic life and play a vital role as oxygen producer. CO2: Demonstrate a comprehensive idea about the structure of algal thallus structure,cell structure, life cycle patterns etc. CO3: Understand the criteria and the basis of classification and recognise the significant contributions of important phycologists. CO4: Comprehend the salient features of various divisions of alga and life histories of Chlamydomonas, Oedogonium, Chara, Ectocarpus, and Polysiphonia. CO5: Gather a comprehensive idea about the origin and evolution of sex in algae CO6: Understand the diversity and range within the world of microorganisms. CO7: Demonstrate a broad understanding of basics of bacterial structure, its growth pattern, mode and the process of reproduction. CO8: Recognize and appraise the different types of plant viruses, their translocation and transmission strategies. CO9: Demonstrate a grasp of the growth and life cycle of viruses and sub-viral particles like viroids, prions.
PHYCOLOGY AND MICROBIOLOGY Practical BOT-A-CC-1-1-P	CO1: Handle simple and compound microscopes. CO2: Prepare temporary slides from algal specimens and use them to study their structure. CO3: Use drawing prism and find out the magnification of specimens observed under the microscope.

	CO4: Develop a better understanding of the morphology, reproductive structures and actual sizes of various algal specimens. CO5: Corroborate their theoretical knowledge after working out the algal specimens and studying the permanent slides. CO6: Develop knowledge of using different instruments to measure the tiny organisms. CO7: Identify different algae from slides. CO8: Learn to stain and sub-culture bacteria. Examine bacteria collected from natural habitats under the microscope. CO9: Develop a broader knowledge on handling lab based microbial instruments. CO10: Learn to explore the surrounding to observe and analyze the diversity of plants in a particular environment. CO11: Collect algae from natural habitat and prepare slides. Then identify the algae collected. CO12: Prepare report on their study of different groups of plants in their natural habitat during excusion.
MYCOLOGY AND PHYTO-PATHOLOGY Theory BOT-A-CC-1-2-TH	CO1: Understand the different life cycle patterns in fungi. CO2: Understand the different types of reproduction in fungi. CO3: Comprehend the concept of degeneration of sex in fungi. CO4: Get a broad understanding of the classification of fungi.CO5: Get an comprehensive account of the life history of the fungi genera included in the syllabus.

	CO6: Know about the different types of mycorrhiza. CO7: Understand the role of mycorrhiza in agriculture and forestry. CO8: Know about the different lichen types. CO9: Understand the economic and ecological importance of lichens. CO10: Understand the terms and definitions associated with Phyto Pathology CO11: Understand the symptoms, causal organism, disease cycle and control measure of different plant diseases. CO12: The students will be able to understand the host parasite interaction. CO13: Understand about pathotoxin and phytoalexin. CO14: Get information about different types of plant disease management.
MYCOLOGY AND PHYTO-PATHOLOGY Practical BOT-A-CC-1-2-P	CO1: Make temporary slide preparation of fungi. CO2: Recognize different identifying characters of micro and macro fungi. CO3: Identify different micro-fungi from permanent slides and macro fungi and lichens. CO3: Demonstrate a grasp of the sterilisation process, isolation of fungal pathogen from diseased leaf. CO4: Inoculate fruit with fungal pathogen and subculture the inoculated fruit.CO5: Develop an understanding of the different phases of life cycle among fungal pathogens of important crop diseases. CO6: Recognize the diversity of different macrofungi in their natural habitat.

	CO7: Collect macro-fungi from their natural habitat. CO8: Prepare a field report regarding their observation during excursion.
PLANT ANATOMY Theory BOT-A-CC-2-3-TH	CO1: Develop knowledge of different types of plant tissue and their function. CO2: Analyze different adaptations acquired by plants in different condition. CO3: Develop knowledge to explore the field of anatomy. CO4: Develop a grasp on the Plant Cell wall; Ultrastructure & Chemical constituents; Plasmodesmata ultrastructure; Concept of Apoplast and Symplast; Growth and Thickening of cell wall. CO5: Learn anatomical structure and functions of various types of Stomata according to a) Metcalfe and Chalk, b)Stebbins and Khush. CO6: Differentiate between different types of Stele along with their evolutionary significance with the help ofLeaf trace and leaf-gap concept. CO7: Develop a broad understanding of a) Primary structure of Monocot and Dicot stem and root-. b) Facts and information acquired through learning the Dorsiventral and isobilateral leaf structure.

PLANT ANATOMY Practical BOT-A-CC-2-3-P	CO1: Explore different staining techniques to differentiate the tissues present in plants. CO2: Identify different types of plant tissues CO3: Develop lucid information about secondary anomalous growth in different plants. CO4: Easily differentiate dicot and monocot root, stem and leaf from anatomical sections. CO5: Will be able to identify different microscopic anatomical structures.
	CO6: Develop an understanding of adaptive anatomical features.
ARCHAEGONIATE Theory BOT-A-CC-2-4-TH	CO1: Understand the criteria and basis of the classification of bryophytes, pteridophytes and gymnosperms CO2: Understand the life histories of some bryophyte, pteridophyte and gymnosperm genera as per syllabus. CO3: Understand the importance of bryophytes, pteridophytes and gymnosperms CO4: Understand the general characteristics and adaptations to land habit. CO5: Understand about the colonisation of early land vascular plants and its implications.CO6: Get an idea of the origin of Alternation of Generations. CO7: Understand about the evolution of Sporophytes. CO8: Understand the Telome concept and its significance in the origin of different groups of Pteridophytes CO9: Know about Heterospory and Origin of Seed habit CO10: Understand the diagnostic features of Progymnosperms

ARCHAEGONIATE Practical BOT-A-CC-2-4-P	CO1: Will to distinguish between different genera of bryophytes, pteridophytes and gymnosperms based on their morphological study. CO2: Study various features of bryophytes, pteridophytes and gymnosperms from macro and micro specimens. CO3: Prepare sections of different bryophyte and pteridophyte genera in the syllabus and make slides.
	CO4: Work out the reproductive structures of select Bryophytes and Pteridopytes CO5: Use the slides for study of the genera, CO6: Explore and identify different archaegoniate in their natural habitat and prepare report on it.

PALAEOBOTANY AND PALYNOLOGY Theory BOT-A-CC-3-5-TH	CO1: Develop knowledge about the Geological time scale and the dominant plants groups through ages CO2: Differentiate between different types of fossils CO3: Develop a broad understanding about the different modesof preservation CO4: Develop a broad understanding of different conditions for fossilization CO5: Know different principles of fossil nomenclatures and reconstructions CO6: Develop knowledge about the dating of fossils CO7: Understand the importance of fossil study CO8: Learn about the structural features, geological distribution and evolutionary significance of different groups of fossil pteridophytes CO9: Learn about the structural features, geological distribution of different groups of fossil gymnosperm CO10: Develop knowledge about the Indian Gondwana system and the index fossils CO11:Differentiate between spores and pollens CO12:Know about different types of pollen apeture and ornamentation types CO13:Understand NPC system of pollens classification CO14: Learn about the sporopollenin contents of
	pollen wall CO15: Develop concepts on different applied branches of palynology viz. Palaeopalynology, Aeropalynology, Forensic Palynology and Melissopalynology

PALAEOBOTANY AND PALYNOLOGY Practical BOT-A-CC-3-5-P	CO1: Identify different type of Index fossils viz. Glossopteris and Ptilophyllum CO2: Differentiate the anatomical parts (TS of Stem)of different groups of fossil plants viz. Rhynia, Lepidodendron, Calamites, Lyginopteris and Cordaites. CO3:Recognize the major types of living pollens viz. colpate, colporate and porate types
REPRODUCTIVE BIOLOGY OF ANGIOSPERMS Theory BOT-A-CC-3-6-TH	CO 1: To gain a detailed knowledge on reproductive biology of angiosperms CO 2: To understand the molecular mechanism of flowering. CO 3: Recognize the different types of inflorescence. CO 4: Recognize the different types of fruit. CO 5: Understand the pre and post fertilization process CO 6: Understand the fertilization process in angiosperms. CO 7: Understand apomixis and polyembryony CO8: Understand the scope & importance of Embryology
REPRODUCTIVE BIOLOGY OF ANGIOSPERMS Practical BOT-A-CC-3-6-P	CO 1: Recognise different types of inflorescence, flowers and fruits. CO 2: Study and understand different types of ovules. CO 3: Get an comprehensive idea of angiosperm reproductive units in their natural habitat during field study

PLANT SYSTEMATICS Theory BOT-A-CC-3-7-TH	CO 1: Understand the comparative account among the families of angiosperms.CO 2: Understand the distinguishing features of angiosperm families. CO 3: Understand rules and applications of ICN. CO 4: Have an understanding of Phenetics and Cladistics CO 5: Have an understanding about the data sources in Taxonomy CO 6: Get an comprehensive idea of Herbaria and Botanical garden CO7: Understand the different systems of taxonomic classification of plants proposed by different renowned taxonomist
PLANT SYSTEMATICS Practical BOT-A-CC-3-7-P	CO1: Work out, draw, describe plants belonging to different angiospermic families in the syllabus. CO2: Able to draw the floral diagram and write floral formula. CO3: Identify upto genus with the help of suitable literature of wild plants for plants belonging to different angiospermic families in the practical syllabus. CO4: Identify common wild plants from families included in theoretical syllabus. CO5: Visit the AJCBIBG during excursion and get an idea of plant diversity. CO6: Participate in excursions and collect plant specimens. CO7: Make herbarium specimens. CO8: Learn how to arrange herbarium specimens
	according to Bentham & Hooker’s system of classification. CO9: Maintain a field diary and write a field reportCO10: Learn how to find out author citations.

PLANT GEOGRAPHY, ECOLOGY AND EVOLUTION Theory BOT-A-CC-4-8-TH	CO1: Know about the Phytogeographical regions of India. CO2: Get an idea on the dominant flora of Eastern and Western Himalaya & Sunderban. CO3: Understand Endemism and its theories. CO4: Develop understanding on Population and Community ecology CO5: Get an idea on plant indicators. CO6: Understand phytoremediation. CO7: Understand different levels of biodiversity and conservation measures. CO8: Comprehend about biological hotspots CO9: Understand the different theories of evolution CO10: Know about speciation and co-evolution. CO11: Understand the simplified phylogeny of bacteria, algae, fungi, bryophyte, pteridophyte and gymnosperms.
PLANT GEOGRAPHY, ECOLOGY AND EVOLUTION Practical BOT-A-CC-4-8-P	CO1: Study of community structure by quadrat method and determine minial size. Be able to calculate frequency, density and abundance. CO2: Be able to do a comparative anatomical studies of leaves form polluted and less polluted areas. CO3: Study of local flora during local excursion.CO4: During long excursion visit a different phytogeographical region.

	CO5: Make a submission of a project report highlighting phytogeographical characteristics of the region visited during excursion. CO6: Measure dissolved O2 by azide modification of Winkler's method. CO7: Compare free CO2 from different sources.
ECONOMIC BOTANY Theory BOT-A-CC-4-9-TH	CO 1:Understand the role plants in human welfare CO 2: Know importance of plants & plant products CO 3: Know about Vaivov's Centres of crop origin CO 4: Understanding of different aspects of Tea including its morphology, processing and uses CO 5: Knowledge on Classification, extraction and processing of different fatty oil and how they are different from essential oils CO 6: Develop a significant grasp on processing techniques with respect to Cotton and Jute CO 7: : Develop a lucid knowledge on origin, morphology, processing and uses of Rice, Wheat, Jute and some legumes CO 8: Explore the gram and mung bean and their relationship with man. CO9: Study fibre following maceration technique.

ECONOMIC BOTANY Practical BOT-A-CC-4-9-P	CO 1: Perform microchemical tests CO 2: Have comprehensive knowledge on diversified characteristics of therapeutic drugs with special reference toCinchona, Digitalis, Papavar, Cannabis and Tobacco CO 3: Gain knowledge of different biochemical test such as tannin, lignin, fat and other micro-chemical tests
Genetics Theory BOT- A-CC-4-10-TH	CO1: Have conceptual understanding of Mendelian genetics and its extension. CO2: To understand the different types of Linkage, detection and molecular mechanism of crossing over, gene mapping methods with problems. Understand Molecular mapping – ISH, FISH. CO3:Gain knowledge about epistasis and polygenic inheritance. CO4:Understand the fundamentals of Aneuploidy and Polyploidy. CO5:Comprehend the effect of chromosomal abnormalities/aberration in numerical as well as structural changes. CO6: Get a detailed understanding of mutations. CO7: Develop critical understanding of Structural organisation of Gene. CO8: Understand Homoeotic gene in plants with reference to ABCE Quartet model of flowering.

Genetics Practical BOT-A-CC-4-10-P	CO1: Gain knowledge on chromosome preparation, Pre-treatment, fixation, staining, squash and smear preparation, preparation of permanent cytology slides. CO2: Determine mitotic index and frequency of different mitotic stages in pre-fixed root of Allium cepa. CO3: Study of mitotic chromosome specimens from root tips: Allium cepa, Aloe vera, Lens esculenta CO4: Study of chromosomal aberrations developed due to exposure to pollutants and pesticides. CO5: Perform hands on experiments of meiotic chromosome using flower buds of Allium cepa and Setcreasea sp CO6: Identify different mototic & meiotic stages from permanent slides

CELL AND MOLECULAR BIOLOGY Theory BOT-A-CC-5-11-TH	CO1: Develop a thorough understanding of the evolution of nucleic acid, RNA world, ribozymes, first cell, origin of eukaryotic cell, small RNA- riboswitch, RNA interference, siRNA, mi RNA, Organellar DNA. CO2: Develop thorough knowledge of nuclear envelope, nuclear lamina and nuclear pore complex, nucleolus-ultrastructure, ribosome biogenesis, chromatin ultrastructure, DNA packaging in eukaryotic chromosome, centromere in details. CO3: They develop a strong fundaments basics for Cell cycle in detail followed by its regulation and checkpoints involved, Apoptosis. CO4: Gain an understanding of central dogma, DNA Replication, transcription, translation both in Prokaryotes & Eukaryotes. CO5: Understand the concept of Lac-operon, positive and negative control in gene regulation. CO6: Have knowledge about Genetic code properties, evidence, exceptions, decipher of genetic code (Binding technique). CO7: Understand the world of Recombinant DNA technology, restriction endonuclease, Vector (plasmid pBR 322),marker gene, cloning technique, PCR and its application, Genomic DNA and cDNA library. CO8: Develop critical understanding of development and causes of Cancer, tumor suppressor gene and oncogene.
CELL BIOLOGY Practical BOT-A-CC-5-11-P	CO1. Study of plant cell structure with the help of epidermal peal mount of using Allium cepa, Rhoeo, Crinum. CO2. Measurement of cell size by the technique of micrometry. CO3. Counting cells per unit volume with the help of

	haemocytometer (Yeast, pollen grains) CO4. Cytochemical staining of DNA- Pyronine-methyl green staining. CO5. Estimation of DNA content through DPA staining. CO6. Estimation of RNA through orcinol method. CO7. Study of nucleolus through hematoxylin and orcin staining and determination of nucleolar frequency using Allium cepa. CO8. Preparation of models, charts on rolling circle, theta replication, semi-discontinuous replication, prokaryotic RNA polymerase and eukaryotic RNA polymerase II, assembly of spliceosome machinery, splicing mechanism in group I and group II introns, ribozyme and alternative splicing.
BIOCHEMISTRY Theory BOT-A-CC-5-12-TH	CO1: Understand different Biochemical Foundations. CO2: Gain knowledge about the Molecules of life viz.DNA, RNA and proteins. CO3: Comprehend Energy flow and enzymology. CO4: Understand Membrane chemistry CO5: Understand Phosphorylation
BIOCHEMISTRY Practical BOT-A-CC-5-12-P	CO 1: Learn to detect protein & carbohydrate from plant samples, different elements from plant ash samples CO2: Learn to detect organic acids: citric, tartaric, oxalic and malic from laboratory samples CO3: Learn to detect the nature of carbohydrate – glucose, fructose , sucrose and starch from laboratory samples.

	CO4: Learn to estimate quantitatively Glucose, amino nitrogen & protein. CO5: Estimate of titratable acidity from lemon. CO6: Estimate of urease activity in plant samples CO7: Perform the Colorimetric estimation of protein by Folin phenol reagent CO8: Prepare solutions and buffers
PLANT PHYSIOLOGY Theory BOT-A-CC-6-13-TH	CO1: Understand Plant-water relations CO2: Get an idea about Mineral nutrition CO3: Understand Organic Translocation CO4: Get a comprehensive account of Plant Growth Regulators CO5: Photomorphogenesis CO6: Understand Seed dormancy, Senescence and Ageing
PLANT PHYSIOLOGY Practical BOT-A-CC-6-13-P	CO1: Determination of loss of water per stoma per hour. CO2: Know the Relationship between transpiration and evaporation. CO3: Measure osmotic pressure of storage tissue by weighing method. CO4: Measure osmotic pressure of Rhoeo leaf by plasmolytic method. CO5: Study the Effect of temperature on absorption of water by storage tissue and determination of Q10. CO6: Find out the Rate of imbibition of water by starchy, proteinaceous and fatty seeds and effect of seed coat. CO7: To study the phenomenon of seed germination CO8: To study the induction of amylase activity in

	germinating grains. CO9: To study the effect of different concentrations of IAA on Avena coleoptile (IAA Bioassay).
PLANT METABOLISM Theory BOT-A-CC-6-14-TH	CO1: Understand the Concept of metabolism. CO2: Understand in depth Photosynthesis CO3: Understand in depth Respiration CO4: Understand Nitrogen Metabolism CO5: Understand Lipid metabolism
PLANT METABOLISM Practical BOT-A-CC-6-14-P	CO1: Understand different types of chromatography. CO2: Separation of plastidial pigments by solvent and paper chromatog CO3: Perform Measurement of oxygen uptake by respiring tissue CO4: Determination of the RQ of germinating seeds.
APPLIED PHYCOLOGY, MYCOLOGY AND MICROBIOLOGY BOT-A-SEC-A-3-1	CO1: They learn different applied aspects of Phycology, Mycology & Microbiology. CO2: Learn about industrial production of SCP, algal biodiesel, microbial enzymes, vinegar. They will also get an idea about the job potential in these fields.
MUSHROOM CULTURE TECHNOLOGY BOT-A-SEC-B-4-4	CO1: Understand the nutritional and medicinal value of edible mushrooms. CO2: Study about the cultivation and storage of different mushroom species. CO3: Understand the food preparation process.

Biostatistics Theory BOT-A-DSE-A-5-1-TH	CO1: Understand statistical methods, basic principles and variables.
	CO2: Understand Data, Sample, Population, Random sampling, Frequency distribution. CO3: Calculate Arithmetic Mean, Mode and Median from data. CO4: Understand multiplicative and additive rules of probability along with the application and importance of probability. CO5: Measure gene frequency with Hardy-Weinberg equilibrium
Biostatistics Practical BOT-A-DSE-A-5-1-P	CO1: Do Univariate analysis of statistical data CO2: Calculate correlation coefficient values and finding out the probability CO3: Determine goodness of fit in Mendellian and modified mono-and dihybrid ratios CO4: Calculation of 'F' value and finding out the probability value for the F value CO5: Develop a basic idea of computer programme for statistical analysis.
MEDICINAL AND ETHNOBOTANY Theory BOT-A-DSE-A-6-3-TH	CO1: Get a general idea of Medicinal botany. CO2: Get a comprehensive idea about Pharmacognosy. CO3: Understand the Interrelationship of basic metabolic pathways with secondary metabolite biosynthesis. CO4: Get information on Pharmacologically active constituents with the Source plants, parts used and uses. CO5: Get information on Ethnobotany and folk medicine

MEDICINAL AND	CO1: Perform Chemical tests for tannin and alkaloid.
ETHNOBOTANY Practical BOT-A-DSE-A-6-3-P	CO2: Do Powder microscopy CO3: Perform Histochemical tests
PLANT BIOTECHNOLOGY Theory BOT-A-DSE-B-5-5-TH	CO1: Get information on different tissue culture techniques. CO2: Get a Brief concept of different gene transfer methods
PLANT BIOTECHNOLOGY Practical BOT-A-DSE-B-5-5-TH	CO1: Familiarization of basic equipment in plant tissue culture CO2: Preparation of basal media. Sterilization techniques.
Natural resource management Theory BOT-A-DSE-B-6-8-TH	CO1: Develop a brief idea about our natural resources. CO2: Understand the threats and management strategies of different types of natural resources. CO3: Get a brief idea on contemporary practices in resource management. CO4: Get information on National and international efforts in resource management and conservation

Natural resource management Practical BOT-A-DSE-B-6-8-TH	CO1: Estimation of solid waste generated by a domestic system(biodegradable and nonbiodegradable) and its impacton land degradation. CO2: Estimate foliar dust deposition CO3: Determine total solid in water (TDS) CO4: Determine chemical properties of soil by rapid spot test (carbonate, iron, nitrate). CO5: Estimate organic carbon percentage present in soil sample. CO6: Collect data on forest cover of specific area.
Botany General Course Outcomes	
PLANT DIVERSITY I (PHYCOLOGY, MYCOLOGY, PHYTOPATHOLOGY, BRYOPHYTES AND ANATOMY) Theory BOT-G-CC-1-1-TH	CO1: Get an introduction to different plant groups CO2: Understand Phytopathology CO3: Learn about plant anatomy.
PLANT DIVERSITY I (PHYCOLOGY, MYCOLOGY, PHYTOPATHOLOGY, BRYOPHYTES AND ANATOMY) BOT-G-CC-1-1-P	CO1: Work out: Microscopic preparation, drawing and labelling of Chlamydomonas, Chara, Ectocarpus, Rhizopus and Ascobolus ANATOMY) CO2: Perform Anatomical slides following double staining method.

PLANT DIVERSITY II (PTERIDOPHYTES, GYMNOSPERMS, PALAEOBOTANY, MORPHOLOGY AND TAXONOMY) Theory BOT-G-CC-2-2-TH	CO1: Understand the diagnostic characters of different groups CO2: Understand the life cycle of different genera in syllabus. CO3: Understand the fossilization process and factors of fossilization CO4: Get an idea about Angiosperm Morphology CO5: Understand the Diagnostic features of some angiosperm families
PLANT DIVERSITY II (PTERIDOPHYTES, GYMNOSPERMS, PALAEOBOTANY, MORPHOLOGY AND TAXONOMY) Practical BOT-G-CC-2-2-P	CO1: Dissect, drawing, label and describe angiospermic plants mentioned in syllabus. CO2: Identify Anatomical slides CO3: Learn to spot identify plants. CO4: Participate in excursion and get to know all groups of plants in their natural habitats.
CELL BIOLOGY, GENETICS AND	CO1: Understand the Ultrastructure of nuclear envelope, nucleolus and their functions
MICROBIOLOGY Theory BOT-G-CC-3-3-TH	CO2: Understand Chromosomal aberrations CO3: Learn about central dogma, genetic code, linkage groups CO 4: Learn about mutations. CO5: Understand about split genes and transposons. CO6: Know about the discovery, general structure, replication of virus.

CELL BIOLOGY, GENETICS AND MICROBIOLOGY Practical BOT-G-CC-3-3-P	CO1: Stain (Aceto-orcein) and squash preparation of onion root tip for study of mitotic stages and mitotoc index. CO2: Gram staining with curd. CO 3: Identification of Cytological slides of different mitotic and meiotic stages
PLANT PHYSIOLOGY AND METABOLISM Theory BOT-G-CC-4-4-TH	CO1: Understand the Primary, secondary and tertiary structure of protein. CO2: Understand structure of Nucleic acid CO3: Understand Transport in plants, Transpiration, photosynthesis, Respiration, nitrogen metabolism, Plant Growth regulators, Photoperiodism and Senescence
PLANT PHYSIOLOGY AND METABOLISM Practical BOT-G-CC-4-4-P	CO1: Determine of transpiration rate per unit CO2: Do experiment on Plasmolysis CO3: Perform Imbibition of water by dry seeds – proteinaceous and fatty seeds. CO 4: Evolution of O2 during photosynthesis (using graduated tube). CO 5: Evolution of CO2 during aerobic respiration and measurement of volume.
SEC BIOFERTILIZERS BOT-G-SEC-A-3/5-2	CO1: Get an comprehensive idea about different biofertilizers. CO2: Understand Mycorrhizal association. CO3: Get detailed information on Organic farming.

DSE PHYTOCHEMISTRY AND MEDICINAL BOTANY Theory BOT-G-DSE-A-5-1-TH	CO1: Get a general idea of Medicinal botany. CO2: Get a comprehensive idea about Pharmacognosy. CO3: Understand Organoleptic evaluation of crude drugs. CO4: Know about Pharmcologically active constituents with their Source plants CO5: Get an idea about Ethnobotany and folk medicine
PHYTOCHEMISTRY AND MEDICINAL BOTANY Practical BOT-G-DSE-A-5-1-P	CO1: Identification of medicinal plants CO2: Perform Qualitative test for proteins and carbohydrates, reducing and non reducing sugars. CO3: Make an Acquaintance with laboratory instruments. CO4: Participate in excursion and make a list of medicinal plants found locally.
DSE A NATURAL RESOURCE MANAGEMENTS Theory BOT-G-DSE-A-5-2-TH	CO1: Brief idea about our natural resources. CO2: Understand the threats and management strategies of different types of natural resources. CO 3: Learn about EIA and waste management
NATURAL RESOURCE MANAGEMENTS Practical BOT-G-DSE-A-5-2-P	CO1: Estimation of solid waste generated by a domestic system. CO2: Measure dominant woody species by DBH (diameter at breast height).

	CO3: Study of community structure by Quadrat method and determination of minimal size of quadrat, frequency density and abundance of components CO4: Measurement of dissolved O2 by azide modification of Winkler's method. CO5: Determination of chemical properties of soil by rapid spot test.
DSE B ECONOMIC BOTANY Theory BOT-G-DSE-B-6-3-TH	CO 1: Understand the Origin of cultivated plants: CO2: Understand the origin, morphology and uses of rice, legume and beverage. CO3: Study of the following economically important plants (Scientific names, families, parts used and importance)
ECONOMIC BOTANY Practical By BOT-G-DSE-B-6-3-P	CO1: Study of economically important plants (rice/jute/ tea) through herbarium specimens and field study. CO 2: Study of cultivation practices in field and submission of report. CO 3: Study of local economically important plants and submission of report with photographs.

ZOOLOGY

Name of Course	Course Outcomes
CC1-1-TH – Non-chordatesI & CC1-1-P – Non-chordates I Lab	CO1: Demonstrate a broad understanding of basic animal classification from protozoa to nematoda CO2: Develop a broad sense of basic anatomy, physiology, morphology and behaviour in general ofthe above various non-chordate phyla CO3: Identify aspects of anatomy, physiology, morphology and behaviour of specific examples of representative animals of the above various non-chordate phyla
CC1-2-TH – Molecular Biology	CO1: Demonstrate a thorough understanding of nucleic acids
	CO2: Analyze various genetic phenomena that go on atthe molecular level of the cell
	CO3: Develop a basic understanding of certain universal molecular biology techniques
CC1-2-P – Molecular Biology Lab	CO1: Demonstrate a broad understanding of specific chromosome types
	CO2: Become technically competent in order to quantify genomic DNA, run agarose gels and histologically stain DNA and RNA
CC2-3-TH – Non-chordates II CC2-3-P – Non-chordates II	CO1: Demonstrate a broad understanding of basic animal classification from annelida to hemichordata CO2: Develop a broad sense of basic anatomy, physiology, morphology and behaviour in general ofthe above various non-chordate phyla CO3: Identify aspects of anatomy, physiology, morphology and behaviour of specific examples of representative animals of the above various non-chordate phyla CO1: Demonstrate a broad understanding of basic

Lab	animal classification from annelida to echinodermata CO2: Become technically competent in order to do anatomical studies of various organ systems of specific animal model prescribed
CC2-4-TH – Cell Biology CC1-2-P – Molecular Biology Lab	CO1: Demonstrate a thorough understanding at the molecular level of various cell organelles CO2: Analyze various aspects of the cell cycle, apoptosis and cancer CO3: Develop a basic understanding of cell signalling CO1: Demonstrate a broad understanding of various meiotic stages from specific organ system of prescribed animal and plant models CO2: Become technically competent in order to prepare permanent slides in order to identify Barr body,DNA and cell viability from prescribed animal models
ZOOA-CC3-5-TH ZOOA-CC3-5-P	CO1: Classify and place chordates according to their cladistic and phylogenetic positions in the animal world CO2: Draw evolutionary relationships amongst different groups of organiss CO3: Study and understand the anatomies, physiologies, life histories and adaptations of differentorganisms, and be able to draw an evolutionary conclusionfrom this from Protochordates to Mammals CO1: Identify and classify Chordates from Protochordates to Mammals CO2: Observe and study different internal organ systems of fish CO3: Study the habit, habitat and behaviour of animals CO4: Observe and study the pectin of fowl

ZOOA-CC-3-6-TH	CO1: Learn about the structure, location, classificationand functions of different tissues CO2: Study the structure and classification of bones and cartilage, ossification CO3: Study the structure of nervous system and its function CO4: Learn about histology of different type of muscles, and the molecular and chemical basis of theirfunctions CO5: Know about the histology and physiology of the mammalian reproductive organ CO6: Learn about the histology of different endocrine gland, the classification of hormones and the signaling pathways mediated by different hormones
ZOOA-CC-3-6-P	CO1: Record cardiac and simple muscle twitches with electrical stimulation CO2: Prepare temporary mounts CO3: Study permanent slides of different mammalian tissues CO4: Prepare and process tissues by microtomy
ZOOA-CC-3-7-TH	CO1: Study the structure, significance and metabolismof carbohydrates, lipids and proteins CO2: Learn about nucleic acids in detail CO3: Study enzyme nomenclature, kinetics and inhibition CO4: Study the process of oxidative phosphorylation within the mitochondria
ZOOA-CC-3-7-P	CO1: Qualitative tests for carbohydrates, proteins and lipids

	CO2: Qualitative estimation of Urea & Uric acid CO3: Paper chromatography of amino acids CO4: Quantitative estimation of water soluble proteins following Lowry method
ZOOA-SEC(A)-3-1-TH	CO1: Biology and identification of bees CO2: Rearing of Bees, modern technologies for bee keeping and methods of extraction of honey CO3: Bee diseases and bee enemies and their controland preventive measures CO4: Products of Apiculture Industry and their uses CO5: Entrepreneurship in Apiculture

ZOOA-CC4-8-TH	CO1: Structure, function and derivatives of integumentary system of vertebrates CO2: The comparative anatomy of digestive systems and dentition of mammals CO3: Respiratory organs of vertebrates CO4: General plan and comparative accounts ofcirculation in vertebrates CO5: Urinogenital system and its evolution CO6: Comparative accounts of nervous system and sense organs of vertebrates CO7: An overview of axial and appendicular skeletons,and jaw suspension in mammals
ZOOA-CC4-8-P	CO1: Identify different kinds of scales in fish CO2: Identify limb bones, vertebrae and girdles in various vertebrates CO3: Make a comparative study of heart and brain of

	vertebrates CO4: Identify skulls of different vertebrates
ZOOA-CC4-9-TH ZOOA-CC4-9-P	CO1: Structural organization and function of gastro-intestinal tract, mechanical and chemical digestion of food, and absorption of Carbohydrates, Lipids and Proteins in Human CO2: Physiology of respiration CO3: Physiology of circulation CO4: Physiology of heart CO5: Renal physiology CO6: Thermoregulation and osmoregulation CO1: Determine ABO Blood grouping CO2: Estimate haemoglobin CO3:Identify blood cells from human blood CO4: Prepare haemin crystals and haemo-chromogen crystals CO5: Identify of blood cells from cockroach haemolymph CO6: Demonstrate blood pressure by digital meter
ZOOA-CC4-10-TH	CO1: Overview of Immune System CO2: Innate and Adaptive Immunity CO3: Antigenicity and immunogenicity CO4: Structure and functions of different classes of immunoglobulins, Antigen-antibody interactions, Immunoassays(ELISA and RIA) and Monoclonal antibody production

ZOOA-CC4-10-P	CO5: Major histocompatibility complex CO6: Cytokines CO7: Complement system CO8: Hypersensitivity CO9: Vaccines CO1: Structure, function and histology of different lymphoid organs CO2: ELISA technique
ZOOA-SEC(B)-4-1-TH	CO1: Potential scope of Aquarium fish industry and Exotic and Endemic species of Aquarium Fish CO2: Biology of aquarium fish CO3: Preparation of formulated fish feeds CO4: Fish handling, packing and forwarding techniques CO5: Maintenance of aquarium and budget for settingup an Aquarium fish farm as a Cottage Industry
ZOOA-CC5-11-TH	CO1: Level of organisation of autecology and synecology, about the biosphere CO2: Population: factors, interactions, logistic growth, strategies of regulation, Lotka-Volterra equation for competition etc. CO3: Community CO4: Ecosystems CO5: Biodiversity, Wildlife conservation etc
ZOOA-CC5-11-P	CO1: Study the method and calculation for

	determining population densities CO2: Study an aquatic ecosystem CO3: Know more about how animals live in their natural habitat and their natural behaviour and how they interact with human, through field study
ZOOA-CC5-12-TH ZOOA-CC5-12-P	CO1: Mendelian Genetics and its extension CO2: Linkage, Crossing Over and construction of Linkage Maps CO3: Types of gene mutation, chromosomal aberration, molecular basis of mutation and detectionof mutation. CO4: Sex determination in Drosophila and man CO5: Extra chromosomal inheritance CO6: Genetic fine structure CO7: Transposable elements CO1: Learn about Pedigree analysis CO2: Carry out genetic ratio tests CO3: Identify chromosomal aberrations
ZOOA-DSE(A)-5-1-TH ZOOA-DSE(A)-5-1-P	CO1: Parasites and parasitism, and host parasitic relationships CO2: Life cycle, Epidemiology, Pathogenicity, Diagnosis, Prophylaxis and Treatment of different types of invertebrate (Platyhelminthes, Nematodes and Arthreopods) parasites. CO3: Vertebrate parasites, their parasitic behaviour and effect on hosts CO1: Study life stages of different protozoan parasites

	CO2: Study adult and life stages of different invertebrate parasites CO3: Study fish parasites CO4: Study fowl and goat parasites
ZOOA-DSE(B)-5-1-TH ZOOA-DSE(B)-5-1-P	CO1: Endocrine systems, classification, characteristicsand transport of hormones CO2: Hypothalamo-Hypophyseal Axis CO3: Peripheral endocrine glands CO4: Regulation of hormone action and techniques for bioassay of hormones CO5: Functioning of non-mammalian vertebrate hormones CO1: Dissect and display Endocrine glands in vivo CO2: Study permanent slides of endocrine glands CO3: Fix endocrine tissue sections, embed them in paraffin and section them by microtomy CO4: Stain endocrine histological slides

ZOOA-CC6-13-TH	CO1: Comprehend about the early, late and post embryonic development in depth. CO2: Learn about the implications of developmental biology like IVF, potential of stem cells and its therapy.
ZOOA-CC6-13-P	CO1: Study the different developmental stages of chick embryos at different incubation hours. CO2: Understand the different developmental stages and life cycle of Drosophila. CO3: Study structure, functions and classification of placenta. CO4: Identify different invertebrate larvae.

ZOOA-CC6-14-TH	CO1: Learn about the Origin of life, and about the historical review of evolutionary concepts like Lamarkism, Darwinism and Neo Darwinism. CO2: Know about the Geological time scale, Fossil types, about the age determination of fossil, evolutionof horse and different modes of natural selection. CO3: Learn about the species concept, speciation, mode of speciation, adaptive radiation CO4: Understand origin and evolution of Man and learn about population genetics. CO5: Understand extinction and the causes for it. CO6: Learn about the construction and interpretationof phylogenetic tree.
ZOOA-CC6-14-P	CO1: Study the fossils from the models/pictures CO2: Learn about homolog and analogy CO3: Study, construct and interpret phylogenetic tree using parsimony and dendogram following the principle of phenetics and cladistics from a data table.
ZOOA-DSE(A)-6-1-TH	CO1: Understand about the concept and scope of biotechnology. CO2: Know about the techniques of gene manipulation. CO3: Learn about the animal cell culture. CO4: Study about the fermentation and downstream process. CO5: Know the application of biotechnology in health.
ZOOA-DSE(A)-6-1-P	CO1: Perform sterilization of plastic and glass wares of animal cell culture.

	CO2: Prepare animalcell culture media. CO3: Learn the preparation of genomic DNA, isolationof plasmid DNA and agarose gel elctrophresis. CO4: Learn the basic molecular biology techniques.
ZOOA-DSE(B)-6-1-TH ZOOA-DSE(B)-6-1-P	CO1: Pattern of behavior CO2: Social and sexual behavior CO3: Chronobiology and biological rhythm CO1: Study nests and nesting habits of the birds and social insects. CO2: Study the behavioural responses of wood lice todry and humid conditions. CO3: Learn about the geotaxis behaviour in earthworm. CO4: Know about the phototaxis behaviour in insect larvae. CO5: Study behavioural activities of animals in their natural habitat. CO6: Study of circadian functions in humans.

PHYSICS

Name of Course	Course Outcomes
PHSA-CC-1-1-TH: Mathematical Physics – I - Theory	CO1: The students will learn basic mathematical toolsrequired to study theoretical and experimental physics.
	CO2: They will also learn how to use these mathematical tools to explain various physicalphenomena.
PHSA-CC-1-1-P: Mathematical Physics – I - Practical	CO1: They will also learn basics of programming inopen-source programming language Python. CO2: The student will also learn how to use open- source graph plotting software Gnuplot embedded inthe open OS Linux.
	CO3: This course enables a student to build the foundation of application of computational techniques in any branch of theoretical and experimental physics as well as in any interdisciplinary branch of research infuture.
PHSA-CC-1-2-TH: Mechanics – Theory	CO1: This course is a prerequisite in the study of classical foundation of physics at entry level. The coreof this course is Newtonian mechanics and its application in explaining various classical phenomena.
PHSA-CC-1-2-P: Mechanics -Practical	CO1: This course teaches students to performexperiments to verify different laws related toNewtonian mechanics.
	CO2: It also enables them to calculate various physicalquantities as described in the theory course.

PHSA-CC-2-3-TH: Electricity and Magnetism - Theory	CO1: The students will be given an idea about electricity (both static and current) and magnetism andvarious electromagnetic phenomena such as electromagnetic induction, electrical circuits, etc. CO2: Being a fundamental pillar for study in physics and engineering, it explains the students about variousapplication of electricity and magnetism in our daily life. CO3: This course is a prerequisite for advanced topicsin electromagnetic theory.

PHSA-CC-2-3-P: Electricity and Magnetism - Practical	CO1: The practical experiments that are being performed in this course will enable a student to get familiar with various electrical components such as power supply, multimeter and various other measuringinstruments. CO2: The students will be able to perform various experiments on electricity and magnetism in this course and will learn about precautions to be takenduring performing an experiment with electrical equipment.
PHSA-CC-2-4-TH: Waves and Optics -Theory PHSA-CC-2-4-P: Waves and Optics - Practical	CO1: The students will be given basic knowledge invibration, wave motion and wave theory of light. CO2: The study of classical harmonic oscillator andwave motion gives them an insight about the CO3: he phenomena of interference, diffraction andpolarization of light and its applications enables a student to progress to more advanced topics of Physics. CO1: The laboratory practical course familiarizes the students with experiments with optical instruments andmeasurement of various opticalparameters.
PHSA-CC-3-5-TH: Mathematical Physics – II - Theory	CO1: Students will learn more advanced topics ofmathematical physics like Fourier series and its application. CO2: They'll also learn series solution of the differential equation, some special functions and theirapplication. CO3: Partial differential equations will also be taught in this course along with some improper integrals that are important for studying theoretical aspects in

	various branches in physics.
PHSA-CC-3-5-P: Mathematical Physics – II - Practical	CO1: In the hands-on practical section, students will learn different packages of Python like numpy, scipy,matplotlib etc. and apply them to find the solutions ofproblems of matrix algebra, numerical integration, interpolation, solution of differential equation and curve fitting.
PHSA-CC-3-6-TH: Thermal Physics – Theory	CO1: In this course, thermodynamics is introduced toexplain the fundamental laws of nature. Students willlearn the principle of operation of engines and refrigerators in this course. They will also learn aboutentropy and thermodynamic potential, an essential concept in explaining chemical reactions. CO2: The students learn the basic energy distribution laws thermal Physics and to explain the basic laws andlimitations related to ideal gas.
PHSA-CC-3-6-P: Thermal Physics –Practical	CO1: In this course the student will perform differentexperiments on heat and thermodynamics that will enhance their experimental skill.
PHSA-CC-3-6-TH: Digital Systems and Applications – Theory	CO1: The students will learn the fundamentals of codesand number system, the binary arithmetic, logics and Boolean functions also to simplify circuits and Boolean expressions using the Boolean laws. Simplify Boolean algebra expressions using Karnaughmaps. CO2: In this course, the students will understand thefunctions and working of flipflops, counters and registers and their applications into memory circuits.Design different registers and counters. CO3: Design basic combinational and sequential logiccircuits.
PHSA-CC-3-6-P: Digital Systems and Applications – Practical	CO1: The students will be able to design and analyze digital logic circuits using different components taughtin the theoretical section.

PHS-A-SEC-A-TH: Basics of Programmingand Scientific Word Processing – Theory	CO1: This course is a theoretical technical skill enhancement course. In this course, the students will learn the basic elements of programming through programming in C/FORTRAN. CO2: They will also get an introduction to graphical analysis and graphical plotting software Gnuplot. CO3: The students will learn how to prepare a scientific article containing figures, tables and mathematical equations in a presentable form through open-source scientific writing software LaTex.
PHS-A-CC-4-8-TH: Mathematical Physics -III – Theory	CO1: The students will learn some of the mathematicaltools such as complex analysis and its application. CO2: They will also learn about integral transform by means of Fourier transform as an extension of Fourieranalysis taught in the last semester. CO3: The students will also be acquainted with theconcept of special theory of relativity which is extremely essential for understanding the physical world beyond Newtonian mechanics. CO4: The mathematical rigour and the fundamental concepts of probability theory will also be taught inthis course.
PHS-A-CC-4-8-P: Mathematical Physics -III – Practical	CO1: The students will learn advanced level Python programming to evaluate numerical solution of differential equation and partial differential equations.

PHS-A-CC-4-9-TH: Elements of ModernPhysics – Theory	CO1: The limitations of classical mechanics and classical electromagnetism will be presented in thiscourse and the students will be introduced to the curious world of quantum physics. CO2: The students will become familiar with the mathematical tools and their physical implications in some model quantum systems – a clear deviation from the classical macro level. CO2: The students will learn basics of nuclear physics

	- nuclear structure,radioactivity, nuclear fission &fusion. CO3: They will also learn fundamental principle ofLaser and its applications.
PHS-A-CC-4-9-P: Elements of ModernPhysics – Practical	CO1: This laboratory classes will familiarize the students to the topics learnt in the theory section through the determination of the value of Planck's constant, study of photoelectric effect, verification ofStefan's law of radiation, determination of e/m of electron and behaviour of tunnel diode.
PHS-A-CC-4-10-TH: Analog Systems and Applications – Theory	CO1: The basics of analog electronics is taught in this course which is the heart of the modern-day electronicdevices. They will understand the fundamentals of semiconductor physics and its application. PSO2: Students will learn about the operation, characteristics and various applications of different analog devices and working of amplifier andoscillator.
PHS-A-CC-4-10-P: Analog Systems and Applications – Practical	CO1: This laboratory sessions will help the students toget familiarize with the electronic devices and to design and performexperiments with electronic components.
PHS-A-SEC-B-TH: Renewable Energy andEnergy Harvesting – Theory	CO1: Students will be able to understand the conceptof fossil fuels and alternate Sources of energy. CO2: They will learn in detail about various renewable energy sources – solar energy, wind energy harvesting, ocean energy, geothermal energy, hydro energy, piezoelectric Energy harvesting andelectromagnetic energyharvesting.

PHS-A-CC-5-11-TH: Quantum Mechanics andApplications – Theory	CO1: The students will learn thoroughly Schrodingerequation and its application in the case of simple harmonic oscillator and hydrogen like atoms in this advanced Quantum Mechanics course. CO2: They will also understand the concept ofgeneralized angular momenta and spin and its

	application in the case of hydrogen spectra and finestructure splitting. CO3: The interaction of atoms in magnetic and electricfield is also being taught in this course.
PHS-A-CC-5-11-P: Quantum Mechanics andApplications – Practical	CO1: The numerical solution of some of the Schrodinger equations in Python will be taught in thiscourse.
PHS-A-CC-5-12-TH: Solid State Physics –Theory	CO1: This course explains the physical properties of the material in solid states as an application of quantummechanics. CO2: The basis of semiconductors and superconductors can be also explained with this theory.
PHS-A-CC-5-12-P: Solid State Physics – Practical	CO1: This laboratory sessions will give enoughexposure to the students to design and perform experiments with solid state materials.
PHS-A-DSE-A1-TH: Laser and Fiber Optics –Theory	CO1: Students will be able to learn the basic and thegeneration of different types of LASER and their application. CO2: The mathematical framework of working ofFiber Optics
PHS-A-DSE-B1-TH: Nuclear and ParticlePhysics – Theory	CO1: This topic in Nuclear Physics introduces the student to the concept of nuclear reaction, interactionof nuclear radiation with matter and detectors for nuclear radiation. CO2: Students will also learn about the particle accelerators and also about fundamental particles andtheir properties in this course.

PHS-A-CC-6-13-TH: Electromagnetic Theory –Theory	CO1: This course teaches the students about the originand different properties of the EM waves. CO2: Propagation of EM waves in unbounded and bounded media are also being taught in this course.

PHS-A-CC-6-13-TH: Electromagnetic Theory –Practical	CO3: Electromagnetic origin of wave optics and polarization is also being discussed in this course. CO1: The verification of different physical laws relatedto the EM wave propagation is done through the laboratory sessions.
PHS-A-CC-6-14-TH: Statistical Mechanics –Theory	CO1: In this course, the students will be able to understand the behaviour and dynamics of a systemcomprising of a large number of particles. CO2: The Classical Statistical Mechanics teaches themabout the classical nature of the system through classical theory of radiation. CO3: Quantum Statistical Mechanics deals with thosecollections of particles where obeying the laws of quantum mechanics is a necessity and approximation by classical mechanics is no longer valid.
PHS-A-CC-6-14-P: Statistical Mechanics –Practical	CO1: Python programming is used to analyze thebehaviour of a collection of particles through numerically calculate partition function and otherphysical properties.
PHS-A-DSE-A2-TH: Nano Materials and Applications – Theory	CO1: The exciting world of nanotechnology is being discussed here through the basic physics underlying theconcept of nano particles. The synthesis and the properties of the nano materials are also beingdiscussed in this course.
PHS-A-DSE-B2-TH: Advanced Statistical Mechanics – Theory	CO1: This advanced course in Statistical Mechanicsintroduces the student to the concept of Ising model and non equilibriumstatistical mechanics.

Physics General Course	
Name of Course	Course Outcomes
PHS-G-CC-1-1-TH: Mechanics – Theory	CO1: This course is a prerequisite in the study of classical foundation of physics at entry level. The coreof this course is Newtonian mechanics and its application in explaining various classical phenomena.

	CO2: Students will also learn about some general properties of matter – elasticity, surface tension andviscosity.
PHS-G-CC-1-1-P: Mechanics -Practical	CO1: This course teaches students to perform experiments to calculate different quantities related toNewtonian mechanics.
PHS-G-CC-2-2-TH: Electricity and Magnetism - Theory	CO1: The students will be given an idea about electricity (both static and current) and magnetism andvarious electromagnetic phenomena such as electromagnetic induction, electrical circuits, etc.
PHS-G-CC-2-2-P: Electricity and Magnetism – Practical	CO1: The practical experiments in this course are modelled in such a way that the students get familiar with various experiments on electricity and magnetism.
PHS-G-CC-3-3-TH: Thermal Physics and Statistical Mechanics –Theory	CO1: In this course, students will learn thermodynamics to explain the fundamental laws ofnature. CO2: The students will also learn about the kinetictheory of gases and elementary theory of statisticalmechanics.
PHS-G-CC-3-3-P: Thermal Physics and Statistical Mechanics –Practical	CO1: Student will learn to perform various experiments on heat and thermodynamics in thiscourse.
PHS-G-CC-4-4-TH: Waves and Optics –Theory	CO1: The students will be given basic knowledge invibration and wave motion. CO2: The concept of wave theory of light will bediscussed through interference, diffraction and polarization of light and their applications.
PHS-G-CC-4-4-P: Waves and Optics - Practical	CO1: The laboratory practical course deals with theexperiments on optics and sound.
PHS-G-SEC-B-TH: Renewable Energy andEnergy Harvesting – Theory	CO1: Students will be able to understand the conceptof fossil fuels and alternate Sources of energy. CO2: They will learn in detail about various renewable

	energy sources – solar energy, wind energy harvesting,ocean energy, geothermal energy, hydro energy, piezoelectric Energy harvesting andelectromagnetic energy harvesting.
PHS-G-DSE-A-TH: Analog Electronics –Theory	CO1: Students will learn the basics in analog electronics and will also understand the operation, characteristics and various applications of different analog devices and working of amplifier and oscillator.
PHS-G-DSE-A-P: Analog Electronics – Practical	CO1: In the laboratory course, students will perform experiments with various electronic components liketransistors, OPAMPs, etc.
PHS-G-SEC-A-TH: Basics of Programmingand Scientific Word Processing – Theory	CO1: This course is a theoretical technical skill enhancement course. In this course, the students willlearn the basic elements of programming through programming in C/FORTRAN. CO2: They will also get an introduction to graphicalanalysis and graphical plotting software Gnuplot. CO3: The students will learn how to prepare a scientific article containing figures, tables and mathematical equations in a presentable form throughopen-source scientific writing software LaTex.
PHS-G-DSE-B-TH: Digital Electronics –Theory	CO1: The students will learn the fundamentals of digital electronics starting from number system and elementary digital circuits, the functions and workingof flipflops, counters and registers and their applications into memory circuits.
PHS-G-DSE-B-P: Digital Electronics – Practical	CO1: The students will be able to design and analyze digital logic circuits using different components taughtin the theoretical section.

FOOD AND NUTRITION

SEM I

Students will able to --

A. To understand conservation of mass, chemical and physical changes, Mechanical mixtures and chemical compounds.
B. To get a concept Symbol, Valency, Formula, Equation, Naming of Compounds, Radicals.
C. To explain various theories and models relating to structure of atoms.
D. To discuss theories pertaining to definition and classification of acid and bases.
E. To understand colloids, types of colloids system and dialysis.

SEM 2

Students will able to --

A. To understand C.G.S. and F.P.S. system and Measurement of mass and weight, uses of common and spring balance.
B. To get a concept of Motion of body – displacement, velocity, acceleration units. Gravity – Acceleration due to gravity.
C. Learn to Thermometry. Calorimetry,Transmission of heat, Thermoflask.
D. To discuss of Potential, Current-relation between two.
E. To explain the concept of Electricity and its application in daily life – lamp, Toaster, Geyser, iron, Microoven.
F. To explain the concept of Refrigerator, cold storage and Electric fuse.

SEM 3

Students will able to --

A. To understand Animal cell: Structure and function.
B. To get a concept and Define Digestive system Structure involve in digestive system (mouth, esophagus, stomach,small intestine, large
intestine,
liver, pancreas, gall bladder) and their functions. Digestion and absorption of Carbohydrate, protein and fat.
C. To explain the Tissue: Definition, structure and functions of different types of tissue, e.g. epithelial, connective, nervous and muscular
tissue special emphasis on blood and bone.

D. To discuss enzymes and hormones- name and their important functions. Metabolism in brief (Glycolysis, Glycogenesis, Gluconeogenesis.

SEM 4

Students will able to --

A. To understand and define Definition of Food, Nutrition, Nutrient, Nutritional status, Dietetics, Balance diet,Malnutrition,
Energy (Unit of energy – Joule, Kilocalorie).

B. To get a concept Carbohydrate, Protein, Fat, Vitamins and Minerals (calcium, phosphorus, sodium,potassium, iron, iodine, fluorine)-
sources,
classification, functions, deficiencies of these nutrients. Functions of water and dietary fiber.

C. To explain the B.M.R: Definition, factors affecting B.M.R. and Total Energy Requirement Calculation of energy of individuals and Basic
five food groups.

D. To get a concept Nutritional significance of cereals, pulses, milk, meat, fish,vegetable, egg, nuts, oils,

SEM 5

Students will able to --

A. To understand Concept and types of Community and Concept of community nutrition.

B. To get a concept Nutritional Assessment: Meaning, need, objectives and importance.

C. To explain Nutritional Intervention programmes to combat malnutrition. Concept of food fortification and food enrichment.

D. To get a concept Nutrition Education: Definition, objectives of nutrition education. Methods of imparting nutrition education.

E.To get Idea food preservation: principles and different methods – drying, freezing, frying, canning etc.

SEM 6

Students will able to --

A. To understand Concept Dietetics, dietitian, Goals of Diet Therapy.

B. To get a concept of Diet Therapy: Therapeutic adaptations of the normal diet. Routine hospital diets –Regular, soft, full fluid, clear fluid
diet Specially modified therapeutic diets.

C. To explain Obesity and underweight: Causes, risk factors, dietary and general management of overweight and underweight.

D. To get a concept Hypertension, Atherosclerosis and Diabetes mellitus: Definition, Causes, Types, risk factors, Signs, Symptoms and
dietary Management.

E. To get Idea of ageing, senescence, old age or aged people, gerontology, geriatrics, and Geriatric nutrition.

F. To explain Nutritional requirements and general dietary guidelines for elderly

GEOGRAPHY

COURSE OUTCOMES (HONOURS)

SEMESTER-I (HONOURS)			
COURSE CODE	**COURSE TITLE**	**CREDIT**	**COURSE OBJECTIVES AND LEARNING OUTCOMES**
GEO-A-CC-1-01-TH/P	Geotectonics and Geomorphology	4+2=6	1.Geotectonics helps to know about basic introduction about earth's interior, tectonic movements and endogenetic forces and resulting landforms 2. Geomorphology deals with exogenetic processes of landform formation and evolution along with different models 3. Practical works help to measure dip and strike, identify rocks and minerals, extract information from Survey of India Topographical maps.
GEO-A-CC-1-02-TH/P	Cartographic Techniques	4+2=6	1. Cartographic knowledge are useful to prepare maps which shows spatial distribution of aspects in Geography. 2. Knowledge of representing data using cartographic techniques are taught here. 3. Construction of scale and projection helps to prepare thematic maps using geographical data.
SEMESTER-II (HONOURS)			
COURSE CODE	**COURSE TITLE**	**CREDIT**	**COURSE OBJECTIVES AND LEARNING OUTCOMES**
GEO-A-CC-2-03-TH/P	Human Geography	4+2=6	1. Acquiring knowledge regarding evolution of human being on earth, ethnicity, race, society and cultural regions. 2. Develop the knowledge regarding the rural house type and morphology of urban settlement. 3. Analysis the growth and distribution of population, population composition and demographic characteristics with reference to India and as well as world. 4. Assess the demographic characteristics from population pyramid. 5. Analysis the arithmetic growth rate population.
GEO-A-CC-2-04-TH/P	Thematic Mapping and Surveying	4+2=6	1. Thematic Mapping and Surveying understand that concept of rounding, scientific notation. Logarithm and anti-logarithm. Natural and log scales. 2. Acquiring knowledge on Thematic Mapping and Surveying provide the concept of preparation and interpretation of weather

			maps, land use land cover maps and socio-economic maps. 3. Thematic Mapping and Surveying understand that concept on NATMO, GSI, NBSSLUP, NHO, NRSC / Bhuvan, etc. 4. Practical knowledge on Thematic Mapping and Surveying understand the Basic concepts of surveying and survey equipment such as Dumpy level, Theodolite , Prismatic compass etc.
SEMESTER-III (HONOURS)			
COURSE CODE	**COURSE TITLE**	**CREDIT**	**COURSE OBJECTIVES AND LEARNING OUTCOMES**
GEO-A-CC-3-05-TH/P	Climatology	4+2=6	1.Acquiring knowledge regarding elements of the atmosphere 2. Imparting knowledge of atmospheric phenomena and climatic classification 3. Gathering practical knowledge of weather elements using analogue instruments, interpretation of daily weather map of India construction and interpretation of hythergraph, climograph and windrose.
GEO-A-CC-3-06-TH/P	Hydrology and Oceanography	4+2=6	1.Develop knowledge of Hydrology 2. Learn about Oceanography 3.Practical knowledge related with construction and interpretation of rating curves, hydrographs and unit hydrographs
GEO-A-CC-3-07-TH/P	Statistical Methods in Geography	4+2=6	1.Learn importance and significance of statistics in Geography, and scales of measurement 2. Acquire knowledge regarding different types of data, source of data and different methods of collection of data 3. Develop knowledge regarding sampling, and theoretical knowledge regarding frequency, cumulative frequency, normal and probability. 4. Knowledge of numerical data analysis are learned by the students. 5. Students can develop Practical idea regarding different statistical methods in geography
GEO-A-SEC-A-3-02-TH	Tourism Management	2	1. Uunderstanding the concept of tourism management. 2. Acquiring knowledge regarding ecotourism, cultural tourism, adventure tourism, medical tourism, sustainable tourism, pilgrimage, national and international tourism. 3. To know the importance of information technology and tour operations planning. 4. Understanding the necessities and importance of tourism impact assessment.

			5. To identify the trend of global tourism. 6. To understand the outline of Indian tourism and planning for beautiful tourism spots across India.
SEMESTER-IV (HONOURS)			
COURSE CODE	**COURSE TITLE**	**CREDIT**	**COURSE OBJECTIVES AND LEARNING OUTCOMES**
GEO-A-CC-4-08-TH/P	Economic Geography	4+2=6	1. Develop knowledge regarding Economic Geography, 2. Learn about concept and classification of economic activities and factors affecting economic activities 3. Develop the knowledge on international trade and economic blocs. 4. Transport network analysis determines the shortest path which helps to solve traffic related problems. 5. Analyse the trend of industrial production.
CC-4-09 Th+P	Regional Planning and Development.	4+2=6	1. The regional planning makes the ecology and environment sustainable. 2. Regional Planning is an attempt at discovering the plans of the nature and development. 3. These topics increase our knowledge about growth and development; indicate economic, demographic, and environmental approaches. 4. This topic increase our practical skills how to delineate of formal and functional regions.
GEO-A-CC-4-**10**-TH/P	Soil and Biogeography	4+2=6	1. Understand the factors of soil formation and properties of soil. 2. Recognize different type of soil profile and its characteristics. 3. Understand different factors of soil erosion and its management processes. 4. Recognize land capability and its classification. 5.to understand ecosystem and its functions 6. Understand world biome and biodiversity 7. Importance of biogeochemical cycle and devastating impact of deforestation 8. Identification of soil type and derive its pH and salinity 9. Measurement of plant species diversity of an area.
GEO-A-SEC-B-4-**03**-TH	Rural Development	2	1.to know about rural development and its different measures 2. Understand the concept of paradigm and different theories of rural development. 3.acquaring knowledge about area based

			approaches of rural development 4.learn importance of rural governance and policies in rural development
SEMESTER-V (HONOURS)			
COURSE CODE	**COURSE TITLE**	**CREDIT**	**COURSE OBJECTIVES AND LEARNING OUTCOMES**
GEO-A-CC-5-**11**-TH/P	Research Methodology and Fieldwork	4+2=6	1. To understand the concept of research and its importance. 2. Understanding the method of literature review and formulation of research design 3. Aquaring knowledge about research problem, hypothesis, research materials and methods 4. Understanding the concept of plagiarism and its prevention. 5. To know the importance of fieldwork in geographical studies 6. To make a clear concept on field techniques and tools 7. Acquiring knowledge regarding sample collection and inventory preparation from field data 8. To develop knowledge on post-field tabulation, processing and data analysis 9. Practical works help to apply the theoretical knowledge of research methodology through field survey. It also helps to establish the relationship between physical and socio-economic environment.
CC-5-12 Th + P	Remote Sensing, GIS and GNSS	4+2	1. Understand the basic principles of remote sensing. 2. Learn the type of satellite and sensors. 3. Study the sensor resolutions and their applications. 4. Knowing the image referencing schemes and acquisition procedure of geospatial data freely available in NRSC/Bhuvan and USGS 5. Understanding the preparation of false colour composites and true colour composites. 6. Knowing the principles of visual and digital image interpretation for the preparation of inventories of landuse and land cover features. 7. Developing the knowledge regarding the GIS data structure. 8. Understand the principles and significance of buffer preparation and overlay analysis. 9. To know the principles of GNSS positioning and learn the technique of way point collection through GPS.

			10. To learn the technique of image referencing and enhancement. 11. Knowing the technique of preparation of land use and land cover map by supervised image classification using QGIS software. 12. Learn about the process of preparation of thematic map through software. 13. Knowing the procedure of transfer the collected waypoints data to GIS software.
GEO-A-DSE-A-5-**02**-TH/P	Climate Change: Vulnerability and Adaptations	4+2=6	1. Acquaring knowledge on climate change with geological time scale and its evidences 2. Making knowledge about sources of greenhouse gasses and global warming. 3. Importance of IPCC reports on global climate. 4.to understand the severe impact of climate change and global initiatives of its mitigation 5. Importance of National action plan and social organizations in climate change mitigation and awareness programmes. 6. Analysis the trend of temperature and seasonal variability of rainfall. 7. Gathering the knowledge of inventory preparation of extreme climatic events and mitigation measure.
GEO-A-DSE-B-6-**05**-TH/P –	Cultural and Settlement Geography	4+2=6	1.understanding the concept of cultural geography 2. Acquaring knowledge regarding cultural hearth, cultural realm, cultural diffusion cultural segregation, cultural diversity and cultural regions. 3. Cultural geography helps to know racial groups and races of the world. 4. Understanding the nature and types of rural and urban settlements. 5. Develop the knowledge on social segregation and Indian rural house type. 6. To understand the models of urban morphology and functional classification of cities. 7. Learn the technique of preparation of maps which shows spatial distribution of aspects in Geography. 8. Identification of rural settlement is useful to understand the nature of settlements.
SEMESTER-VI (HONOURS)			
COURSE CODE	**COURSE TITLE**	**CREDIT**	**COURSE OBJECTIVES AND LEARNING OUTCOMES**
GEO-A-CC-6-13-	Evolution of Geographical	4 +2	1) Analysis the Contributions of Greek, Chinese, and Indian geographers in the

TH + P	Thought		development of pre-modern Geography. 2) Analysis of affect of 'Dark Age' in Geography. 3) Analysis the development of Geography during the age of 'Discovery' and 'Exploration'. 4) Assess the nature of Geography during the transitional period from cosmography to scientific Geography. 5) Analysis the contribution of Germany, France, Britain and United States of America in Geographical thoughts. 6) Analysis the Trends of geography after the World War-II. 7) Analysis the nature and trend of Critical Geography. 8) Understanding the maps of the world in the perspective of changing perception. 9) To improve the perception of students regarding the school of geographical thought by group presentation.
CC-6-14 Th+P	Hazard and Disaster Management	4+2=6	1. The hazard management study construct basic knowledge about Risk perception and vulnerability assessment . 2. Knowledge of Hazard Management are usefully learn how man can survive, manage, and overcome the trauma at disaster time. 3. Acquiring knowledge of Hazard Management increases our awareness on Land slide, Tsunami, Super Cyclone, Flood, Drought, Bio-hazards, Riverbank / Coastal erosion, Industrial accident, Road / Railway accident, Structural collapse, Environmental pollution etc.
DSE-A-3	Environmental Issues in Geography	4+2=6	1. Environmental Issues in Geography know about basic introduction of Geographers' approach to environmental studies, concept of holistic environment and systems approach. 2. Environmental Issues in Geography deals with Ecosystems and their relationship with habitats. 3. Acquiring knowledge of Environmental Issues in Geography know about rural environmental issues with special reference to sanitation and public health. 4. Acquire knowledge on environmental

			policies and global initiatives for environmental management 5. Practical Knowledge are related with preparation of questionnaire for perception survey on environmental problems and preparation of check-list for environmental Impact assessment for urban / industrial development projects.
DSE-B-8	Geography of India	4+2=6	1. Geography of India know about basic information of Physiographic divisions, Climate, soil, vegetation, Culture and heritage of India. 2. Acquiring knowledge of Geography of India know about Industrial development, development of Automobile and information technology sectors in India 3. This topic to understand that the Population: Growth, distribution, migration, and human development of India. 4. Practical Knowledge are related with Graphical representation of annual trends of production and Comparison of developed and less developedstates of India

SEMESTER-I (GENERAL)			
COURSE CODE	**COURSE TITLE**	**CREDIT**	**COURSE OBJECTIVES AND LEARNING OUTCOMES**
GEO-G-CC-1Th+P	Physical Geography	4+2=6	1. Physical Geography understands that Earth's interior with special reference to seismology. 2. Acquiring knowledge of physical Geography knows about Plate Tectonics as a unified theory of global tectonics. Formation of major relief features of the ocean floor and continents according to Plate Tectonics 3. Acquiring knowledge on Physical Geography know about Degradational processes, Principal geomorphic agents, and Global hydrological cycle.

			4. Practical Knowledge are related with identification of Rocks, minerals and physiographic information from Survey of India
SEMESTER-II (GENERAL)			
COURSE CODE	**COURSE TITLE**	**CREDIT**	**COURSE OBJECTIVES AND LEARNING OUTCOMES**
GEO-G-CC-2-02-TH/P	Environmental Geography	4+2=6	1.Acquiring knowledge regarding elements of the atmosphere 2. Imparting knowledge of atmospheric phenomena and climatic classification 3. Gathering practical knowledge of weather elements using analogue instruments, interpretation of daily weather map of India construction and interpretation of hythergraph, climograph and windrose. 4. Understand the factors of soil formation and properties of soil. 5. Recognize different type of soil profile and its characteristics. 6. Understand different factors of soil erosion and its management processes. 7. Recognize land capability and its classification. 8.to understand ecosystem and its functions 9. Understand world biome and biodiversity 10. Importance of biogeochemical cycle and devastating impact of deforestation 11. Identification of soil type and derive its pH and salinity 12. Measurement of plant species diversity of an area.
SEMESTER-III(GENERAL)			
COURSE CODE	**COURSE TITLE**	**CREDIT**	**COURSE OBJECTIVES AND LEARNING OUTCOMES**
GEO-G-CC-3-03-H/P	Human Geography	4 +2 = 6	1. Acquiring knowledge regarding evolution of human being on earth, ethnicity, race, society and cultural regions. 2. Develop the knowledge regarding the rural house type and morphology of urban settlement. 3. Knowing the economic actives and related models. 3. Analysis the growth and distribution

			of population, population composition and demographic characteristics with reference to India and as well as world. 5. Analysis the arithmetic growth rate population.
GEO-G-SEC-A-6-Th	Forest and Wildlife Management	2	1. Forest and Wildlife Management Understand that the importance of Forest, Wildlife, and its management. 2. The knowledge of Forest and Wildlife Management provide the concept of forest conservation, and wildlife protection 3. Forest and Wildlife Management idea improve the awareness regarding wildlife management and Resource Conservation.
SEMESTER-IV (GENERAL)			
COURSE CODE	**COURSE TITLE**	**CREDIT**	**COURSE OBJECTIVES AND LEARNING OUTCOMES**
GEO-G-CC-4-04-H/P	Cartography	4 +2 = 6	1. Cartographic knowledge are useful to prepare maps which shows spatial distribution of aspects in Geography. 2. Knowledge of representing data using cartographic techniques are taught here. 3. Construction of scale and projection helps to prepare thematic maps using geographical data. 4. The knowledge of GIS and remote sensing helps to prepare the land use and land cover map.
2 GEO-G-SKC-B-5/6-02-TH	Rural Development	2	1.to know about rural development and its different measures 2. Understand the concept of paradigm and different theories of rural development. 3.acquaring knowledge about area based approaches of rural development 4.learn importance of rural governance and policies in rural development
SEMESTER-V (GENERAL)			
COURSE CODE	**COURSE TITLE**	**CREDIT**	**COURSE OBJECTIVES AND LEARNING OUTCOMES**
GEO-G-DSE-A-5-02-H/P	Geography of Tourism	4+3=7	1. Understanding the concept of tourism management. 2. Acquiring knowledge regarding

			ecotourism, cultural tourism, adventure tourism, medical tourism, sustainable tourism, pilgrimage, national and international tourism. 3. To know the importance of information technology and tour operations planning. 4. Understanding the necessities and importance of tourism impact assessment. 5. To identify the trend of global tourism. 6. To understand the outline of Indian tourism and planning for beautiful tourism spots across India.
SEMESTER-VI (GENERAL)			
COURSE CODE	**COURSE TITLE**	**CREDIT**	**COURSE OBJECTIVES AND LEARNING OUTCOMES**
GEO-G-DSE-B-6-Th+P	Population Geography	4+2=6	1. Population Geography understand that the concept of Development of Population as a field of specialization and relation between population geography and demography. Sources of population data, their level of reliability and problems of mapping 2. Acquiring knowledge on Population Geography know about World wise population growth and distribution and its changing scenario. 3. Practical Knowledge are related with Population projection, Population density mapping, and analysis of occupation structure by dominant and distinctive functions etc.

C. Learning Outcome (Semester-wise)

<u>Honours Course</u>

Semester-1

In this semester students learn about physical feature of the world, their formation and development. They also learn techniques of mapping, different types of maps and their representation.

Semester-2

Students are able to learn distribution of world population, growth of population, race and their distinctiveness. Preparation of local area map through analog surveying and transform the data into map are known by students.

Semester-3

Students learn about climate, climatic regions, global heat budget, facts about precipitation, water on earth, water budget, storage, run off, underlying topography of oceans, life under oceans etc. Statistical data collection, processing, tabulation and graphical representation are part of this semester.

Semester-4

Global economy, its trends, trade and transport, tourism management, regional planning and development, soil and biogeography are taught in this semester.

Semester-5

In this semester students learn about preparation of project, procedure to collect data, its representation, hypothesis testing and analysis. Emerging issues in Geography like remote sensing and GIS are learned by students.

Semester-6

Evolution of Geographical thought, different theories, are learnt by students. They also learn about climate change, climatic and manmade disaster and their management.

General Course:

Semester-1

Students learn about interior of the earth, geo-morphological processes, hydrology and oceanography in this semester. Practical related with this papers are also learnt by them.

Semester-2

In this semester students learn about climate of the earth, soil and biogeography.

Semester-3

Lessons imparted in this semester are Economic geography, Social geography and Cultural geography. Practical lessons related with distribution of population, industrial production, and growth rate of population.

Semester-4

Different types of maps, coordinate system and map projection are taught here. Topographical and thematic maps, remote sensing and GIS, surveying are learnt by the students.

Semester-5

They learn about types of tourism, factors influencing tourism, and impact of tourism. Environmental laws and tourism in India are taught here.

Semester-6

Population dynamics, distribution, population composition, fertility and mortality, population policies are learnt by the students.

ECONOMICS

COURSE OUTCOME: GENERIC ELECTIVE:

CO1: Introductory microeconomics: This is the only paper in Economics to be studied in semester 1 as a Core course or Generic Elective. This course is designed to expose the students to the basic principles of microeconomic theory. The emphasis will be on thinking like an economist and the course will illustrate how microeconomic concepts can be applied to analyse real-life situations.

CO 2: Introductory macroeconomics: This course aims to introduce the students to the basic concepts of Macroeconomics. Macroeconomics deals with the aggregate economy. This course discusses the preliminary concepts associated with the determination and measurement of aggregate macroeconomic variables like savings, investment, GDP, money, inflation, and the balance of payment.

CO 3: Issues in Economic Development and India: Using appropriate analytical frameworks, this course reviews major trends in development indicators in India. The axiomatic basis for inequality measurement is used to develop measures of inequality and connections between growth and inequality are explored. The course ends by 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 governance.

CO 4: Indian Economic Policies: Considers the policy debates in India in the post Independence period. It highlights major policy debates and evaluates the Indian empirical evidence.

DSE A/SEC A:

CO 5: Money and banking: DSE A: The DSE and SEC papers are taken by pure general students having economics as a core course. This course is taken in semester 3 or 5. The discussion of money and banking is a central component in the study of macroeconomics CO 5: Method of Field Survey:

SEC A: This is a course on statistical methods for economics. It begins with some basic concepts and terminology that are fundamental to statistical analysis and inference. It discusses sampling techniques used to collect survey data. The course introduces the notion of sampling distributions that act as a bridge between probability theory and statistical inference.

DSE B/SEC B: CO 6: Public Finance:

DSE B: This paper deals with managing the growth and price stability in the economy. Providing the necessary needs and infrastructure to the public. Students learn about taking initiatives for the development of the people, which can contribute to the nation's development. Maintaining the transparency of the policies and the records of income and expenditures. CO

6: Economic data Analysis and Report Writing: SEC B: Students learn to study economic data that are collected over a given period. There are two basic types of economic data: cross-sectional data and time-series data. There are also hybrid data structures that combine features of cross-sectional and time-series data sets; some examples include pooled cross-section time-series data, and panel or longitudinal data.

COMMERCE

Name of Course	Course Outcomes
CC1.1 Chg: Business Laws	CO1: Students learn to recall, interpret and critically appraise the laws of Indian business such as NegotiableInstruments Act, Sale of Goods Act, Consumer Protection Act, and so on. CO2: Students develop the ability to engage with significant laws such as Contract Act and PartnershipAct.
CC1.2 Principles ofManagement	CO1: Students learn the basics of management, and theprinciples of the same. CO2: Students learn the distinction between scientificprinciples of management and the evolution of the same from traditional principles. CO3: Students learn to engage with the basic tools ofmanagement.
CC1.1 Ch: Financial Accounting – I	CO1: Students learn the theoretical aspects of financialmanagement and accounting such as final accounts, consignment accounts, insurance claims, and so on. CO2: Students are able to demonstrate their computational skills and the basics of the accountingprocedure. CO3: Students are able to demonstrate their ability tomaintain journals, ledgers, and making a statement oftrial balance, to rectify the errors of accounts. They also prepare cash books to maintain proper cash in hand and cash at bank with that accounting period.
CC2.1 Chg Company Law	CO1: Students are able to recall the minutiae of the Companies Act, 1956, and the amended Companies Act, 2013. They are able to demonstrate their knowledge of key procedures such as company formation, registration, issue of prospectus, and so on. CO2: Students are able to undertake key tasks such as

	conducting meetings, writing resolutions, displaying an understanding of rules and regulations, valid meeting requirements, the notice period, and so on. CO3: Students are appraised of significant matters suchas penalties in the cases of fraud.
CC2.2 Chg Marketing Management and HumanResource Management	CO1: Students develop a thorough understanding ofmarketing tools, of modern marketing concepts (internet marketing, B2B, B2C models) versus traditional marketing. CO2: Students recognize human resource managementprinciples – recruitment procedure; difference betweenselection and recruitment; training procedure; and so on.
CC2.1 Ch Cost and Management Accounting – I	CO1: Students develop a thorough understanding of the theories of material control, store keeping, bean cart, ledgers, etc. CO2: Students are able to demonstrate the practical applications of the same, such as how to prepare cost sheets, making percentage of profit on it, and so on. CO3: Students are able to demonstrate the ability tostore ledger economic order quantity – maximum, minimum, danger levels; process costing, contrast costing.
SEC 3.1 Chg: Information Technology & Its Application in Business (THEORY) SEC 3.1 Chg: Information Technology & Its	CO1: Students learn how to a) preserve data systematically in tabular form b) how to maintain data security and integrity. CO2: Students learn a) what is the internet, its architecture & different types of network protocols; b) data security, malware, use of firewalls, encryptionetc. CO3: Students learn about cybercrime laws. CO1: Students develop an ability to undertake dataentry in spreadsheets and perform mathematical /

Application in Business (PRACTICAL)	statistical calculations using functions. CO2: Students learn to prepare slides in MSPowerpoint. CO3: Students are able to create websites usingHTML.
CC3.1Ch/CC3.1Cg: Financial Accounting II	CO1: Students learn about partnership accounting suchas Admission of a partner, Retirement of a partner, death of a partner, dissolution of partnership firm. CO2: Students gain knowledge regarding the accounting procedures of various departments and branches through Departmental accounts and Branchaccounting. CO3: Students learn the concept of hire purchase andinstalment payment system, like buying goods on instalment basis and making payment in instalments.
CC3.2 Ch: Indian Financial System	CO1: Students will learn about Financial System andits components, structure of the Indian Financial System. CO2: Students will come to learn about the two typesof Financial market- a) Money Market b) Capital market. CO3: Students will be able to learn about Commercial Banks, Development Banks, Insurance Organizations ,NBFCs and Mutual Fund. CO4: Students will learn about Merchant Banks, CreditRatings, Investor's Protection, their Grievances, Redressal Mechanism and role of SEBI, Judiciary and Media.
CC 4.1 Chg: Entrepreneurship Development and BusinessEthics	CO1: Students will learn various aspects of the processof Entrepreneurs, Idea Formation Innovations, thinkingand creativity. CO2: Students will also learn fundamental aspects of entrepreneurial behavior in MSMEs and family run businesses with the process of Stimulation, support and

	sustainability that are undertaken by various Governments, Government agencies, public sector undertakings as well as several private players. CO3: Students will learn basic concepts of ethics, in terms of its features, significance and versatile dimensions. CO4: Students will learn various dimensions of corporate culture, corporate governance, its objectives, significance and interrelationship with business ethics. CO5: Students will learn about CSR in the Indian context, the basic concepts and elements of ethical principles while outlining its relationship with morality, integrity and law.
CC 4.1 Ch: Taxation I	CO1: Students will learn about basic concepts of Assessee, Previous year, Assessment Year, Sources of Income, Heads of Income, Residential Status, Incidence of Tax And incomes which do not form part of total income except section 10AA and agricultural income. CO2: Students will be able to learn about the process of Calculating Income from Salaries, Income from House, Properties and Profits and Gains of Business and Profession. CO3: Students will come to know about Set Off and Carry Forward of losses, deductions from Gross total Income u/s 80C, 80CCC, 80CCD, 80CCE, 80D, 80DD, 80DDB, 80E 80G, 80GG, 80GGC, 80TTA, 80U.
CC 4.2 Ch/ CC4.2 CG: Cost and Management Accounting -II	CO1: Students understand concepts of joint product and by products, Activity based Costing, Budget and budgetary control, Standard Costing and variance analysis, Marginal costing and CVP analysis,Absorption costing. CO2: Students develop an idea of marginal costing anddecision relating product, pricing, product mix, make or buy decision, choosing among alternatives andclosing down or suspending an activity.

	CO3: Students gain knowledge regarding CVP, assumption and its uses. Break-even analysis, BE point and Margin of safety. Graphical presentation and profitgraph also discussed in class. CO4: Students learn about standard Costing its uses and importance, classification of standards, analysis and computation of materials, labour and overhead costvariances.
CC 5.1Ch/ CC5.1Cg: Auditing & Assurance	CO1: After successful completion of this course, the students are able to understand the basic concepts of audit and its importance to different organizations as atechnique of accounting control. CO2: Students learn to identify the types of errors and frauds (material risks) in the financial statements and the various auditing procedures and techniques to control material misstatements in accordance with Auditing Standards (SA-315). The students are able to explain that with the help of vouching, verification and valuation, auditing ensures the authenticity and reliability of information in the financial statements. CO3: Students learn about Company Audit, the requirements to be a company auditor, the rights, dutiesand liabilities of a company auditor. CO4: Students will be able to explain the role of auditing in society. It helps them to identify, evaluate and monitor the effect of organisation's operations onsociety and environment.
CC 5.2 Ch/ DSE5.1: Taxation II	CO1: Assessment of individual and Assessment of firms help the students to understand and compute total income, gross tax liability, rebates, surcharge, and educational cess. The calculation of tax after consideration of all aspects, i.e., from calculation of total income to computation of tax is performed in these chapters. CO2:The concept of return, advance tax, why and when advance tax is to be paid, consequences on late

	or nonpayment of advance tax i.e, tax management canbe made aware to students by chapters like Provision for Filing of Return, Advance Tax, Interest and Fees. CO3: Students also learn regarding Indirect Taxation i.e, Goods and Service Tax and Customs Duty. Concepts and types of GST, computation of GST, requirement of GST , its objective and advantages for applying GST.
DSE5.2A: Corporate Accounting	CO1: This course enables the students to understand the concept of company as a form of organization and the accounting principles and practices to be followedto maintain the proper books of accounts. CO2: It helps the students to prepare, present and interpret various corporate financial statements that are guided by the Companies Act, 2013 and related rules viz. Companies (Accounts) Rules, 2014,Companies (Indian Accounting Standards) Rules,2015, etc. CO3: The students learn to classify different types ofshares and debentures, and prepare accounts for issue of shares and debentures. CO4: They are able to value goodwill and shares of thecompany using various methods. CO5: This course helps them to understand the varioussurvival and expansion strategies adopted by the company such as amalgamation, absorption andreconstruction.