AZAD HIND FOUZ SMRITI MAHAVIDYALAYA
Dept. of Geography
Syllabus structuring & lesson plan(odd plan)
2021-22 (CBCS)
July-December 2021-22
1st Semester
GEO-A-CC-1-01-TH& P – Geotectonics and Geomorphology

Unit I: Geotectonics (TH/P)

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
1.1TH	Earth's tectonic and structural evolution with reference to geological time scale	HMK	July	TH (lecture method using ppt &interactive discussion)	Theoretical class of practical units Identification of rocks & minerals	Short questions	
2TH	Earth's interior with special reference to seismology. Isostasy :Models of Airy, Pratt and their applicability	HMK	July	TH (lecture method using ppt & interactive discussion		Short questions	
3TH	Plate Tectonics as a unified theory of global tectonics: Processes and landforms at plate margins and hotspots	HMK	August	TH (lecture method using ppt & interactive discussion		MCQ	
4TH	. Folds and Faults—origin and types	HMK	September	TH (lecture method using ppt & interactive discussion		MCQ	
5.1P	Measurement of dip and strike using clinometers	HMK	July		Practical (Geo lab-21)	Practical examination with Clinometers	
6.2P	mineral samples: Bauxite, calcite, chalcopyrite, feldspar, galena, gypsum, hematite, magnetite, mica, quartz, talc, tourmaline &) rock samples: Granite, basalt, dolerite, laterite, limestone, shale, sandstone, conglomerate, slate, phyllite, schist, gneiss, quartzite, marble	HMK	July		Practical (Geo lab-21)	Viva on mineral & rock characteristics	

73.TH	**Delineation of drainage basins**	**RBM**	**July**	**TH (lecture method using ppt & interactive discussion**		**MCQ**	
8.4TH	**hypsometric curve**	**RG**	**July**	**TH (lecture method using ppt & interactive discussion**		**MCQ**	
9.3.P	**Extraction and interpretation of geomorphic information from Survey of India 1:50k topographical maps of plateau region: Delineation of drainage basins, construction of relief profiles (superimposed, projected and composite), relative relief map, slope map (Wentworth's method), stream ordering (Strahler) and bifurcation ratio on a drainage basin**	**RBM**	**July to October**		**Practical (Geo lab-21) & room no 19 (tracing unit)**	**Short questions & application oriented short examinations.**	
10.3.P	**. Construction of hypsometric curve and derivation of hypsometric integer from Survey of India 1:50k topographical maps of plateau region**	**RG**	**July to October**		**Practical (Geo lab-21) & room no 19 (tracing unit)**	**Short questions & application oriented short examinations.**	

Unit II: Geomorphology (TH& P)

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
2.1TH	Degradational processes: Weathering, mass wasting and resultant landforms.	RG	July	TH (lecture method using ppt & Interactive discussion)		Short questions, MCQ & Viva	
2TH	Processes of entrainment, transportation and deposition by different geomorphic agents. Role of humans in landform development	RBM	July	TH (lecture method using ppt & interactivediscussion		Short questions MCQ & Viva	
3TH	Development of river network and landforms on uniclinal and folded structures. Surface expression of faults.	RBM	August	TH (lecture method using ppt & interactive discussion		Short questions MCQ & Viva	
4TH	Development of river network and landforms on granites, basalts and limestones	RBM	August	TH (lecture method using ppt & interactive discussion		Short questions MCQ & Viva	
5TH	. Coastal processes and landforms	RBM	September	TH (lecture method using ppt & interactive discussion		Short questions MCQ & Viva	
6TH	Glacial and glacio-fluvial processes and landforms	RBM	September	TH (lecture method using ppt & interactive discussion		Short questions MCQ & Viva	
9TH	Aeolian and fluvio-aeolian processes and landforms	RBM	September	TH (lecture method using ppt & interactive discussion		Short questions MCQ & Viva	
10TH	Role of time and systems approach in geomorphology. Models on landscape evolution: Views of Davis, Penck, King and Hack	RG	September& October	TH (lecture method using ppt & interactive discussion		Short questions MCQ & Viva	Test examination in November 2021-22

GEO-A-CC-1-02-TH&P – Cartographic Techniques

Unit I&2:

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
2.3.1	. Maps: Components and classification	HMK	July	TH (lecture method using ppt & interactive discussion)		Short questions& MCQ & Viva	
2	Concept and application of scales: Plain, comparative, diagonal and Vernier	HMK	July	TH (lecture method using ppt & interactive discussion)		Short questions& MCQ & Viva	
3	Coordinate systems: Polar and rectangular	HMK	July	TH (lecture method using ppt & interactive discussion)		Short questions	
4	Concept of generating globe	HMK	August	TH (lecture method using ppt & interactive discussion)		Short questions	
5	Grids: Angular and linear systems of measurement	HMK	August	TH (lecture method using ppt & interactive discussion)		Short questions	
6	. Bearing: Magnetic and true, whole-circle and reduced	HMK	September	TH (lecture method using ppt & interactive discussion)		Short questions& MCQ & Viva	
7	. Concept of geoid and spheroid with special reference to Everest and WGS-84	HMK	September	TH (lecture method using ppt & interactive discussion)		Short questions	
8	Map projections: Classification, properties and uses	RBM	July	TH (lecture method using ppt & interactive discussion)		Short questions& MCQ & Viva	
9	Concept and significance of UTM projection	RG	July	TH (lecture method using ppt & interactive discussion)		Short questions	
10	. Representation of data using dots and proportional circle	RG	July	TH (lecture method using ppt & interactive discussion)		Short questions	
11	Representation of data using isopleth and choropleth	RG	August	TH (lecture method using ppt & interactive discussion)		Short questions& MCQ & Viva	
12	Survey of India topographical maps: Reference scheme of old and open series. Information on the margin of maps	RBM	August	TH (lecture method using ppt & interactive discussion)		Short questions& MCQ & Viva	
2.4.1	Graphical construction of scales: Plain, comparative, diagonal and Vernier		September		Practical (Geo lab-21) & room no 19 (tracing unit)	Short questions & application oriented short examinations.	
2	Construction of projections: Polar Zenithal		Septem		Practical (	Short questions &	

	Stereographic, Simple Conic with one standard parallel, Bonne's, Cylindrical Equal Area, and Mercator's		**ber**		**Geo lab-21) & room no 19 (tracing unit)**	**application oriented short examinations.**	
3	**Thematic maps: Proportional squares, pie diagrams with proportional circles, dots and spheres**		**Septem ber**		**Practical (Geo lab-21) & room no 19 (tracing unit)**	**Short questions & application oriented short examinations.**	
4	**Thematic maps: Choropleth, isopleths, and chorochromatic maps**		**oct**		**Practical (Geo lab-21) & room no 19 (tracing unit)**	**Short questions & application oriented short examinations.**	**Test examinatio n in November 2021-22**

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Dept. of Geography

Syllabus structuring & lesson plan

2021-22July to December) (Uneven semester)

3rd Semester

GEO-A-CC-3-05-TH – Climatology (TH & P)

Unit I: Elements of the Atmosphere

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
1	Nature, composition and layering of the atmosphere	RBM	July	TH (lecture method using ppt & interactive discussion)		MCQ	
2	Isolation: Controlling factors. Heat budget of the atmosphere	RBM	July	TH (lecture method using ppt & interactive discussion)		MCQ	
3	Temperature: horizontal and vertical distribution. Inversion of temperature: types, causes and consequences	RBM	August	TH (lecture method using ppt & interactive discussion)		MCQ	
4	Overview of climatechange:Greenhouse effect. Formation, depletion and significance of the ozone layer	RBM	August	TH (lecture method using ppt & interactive discussion)		MCQ	
1P	Measurement of weather elements using analogue instruments: Mean daily temperature, air pressure,relative humidity, rainfall	RBM	July to october		Practical (Geo lab-21) & room no 19 (tracing unit)	Short questions & application oriented short examinations.	
2P	Interpretation of a daily weather map of India (any two): Pre-Monsoon, Monsoon and Post-Monsoon	RBM	July to october		Practical (Geo lab-21) & room no 19 (tracing unit)	Short questions & application oriented short examinations.	
3P	Construction and interpretation of hythergraph and climograph	RG	July to october		Practical (Geo lab-21) & room no 19 (tracing unit)	Short questions & application oriented short examinations.	
4P	Construction and interpretation of wind rose	RG	July to october		Practical (Geo lab-21) & room no 19 (tracing unit)	Short questions & application oriented short examinations.	Test examination in December 2021-22

Unit II: Atmospheric Phenomena and Climatic Classification

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
2.5	Condensation: Process and forms. Mechanism of precipitation: Bergeron-Findeisen theory, collision andcoalescence. Forms of precipitation	RG	July	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
6	Air mass: Typology, origin, characteristics and modification	RG	July	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
7	Fronts: Warm and cold, frontogenesis and frontolysis	RG	July	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
8	Weather: Stability and instability, barotropic and baroclinic conditions	RG	August	TH (lecture method using ppt & interactive discussion)		MCQ	
9	Circulation in the atmosphere: Planetary winds, jet streams, index cycle	RG	August	TH (lecture method using ppt & interactive discussion)		MCQ	
10	Atmospheric disturbances: Tropical and mid-latitude cyclones, thunderstorms	RG	September	TH (lecture method using ppt & interactive discussion)		MCQ	
11	Monsoon circulation and mechanism with reference to India	RG	September	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
12	Climatic classification after Thornthwaite	RG	October	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	Test examination in December 2021-22 Sign of final lab work in December 2021-22

GEO-A-CC-3-06-TH – Hydrology and Oceanography (TH)

Unit-I: Hydrology

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
3.1	**Systems approach in hydrology. Global hydrological cycle: Its physical and biological role**	**HMK**	**July**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
2	**Run off: controlling factors. Infiltration and evapotranspiration. Run off cycle**	**HMK**	**July**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
3	**Drainage basin as a hydrological unit. Principles of water harvesting and watershed management**	**HMK**	**August**				
4	**Groundwater: Occurrence and storage. Factors controlling recharge, discharge and movement**	**HMK**	**August**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	

Unit-II: Oceanography:

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
3.5	**Major relief features of the ocean floor: Characteristics and origin according to plate tectonics**	**RG**	**July**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
6	**Physical and chemical properties of ocean water**	**RG**	**July**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
7	**Water mass, T–S diagram**	**RG**	**August**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	

8	**Air-Sea interactions, ocean circulation, wave and tide**	**RG**	**August**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
9	**Ocean temperature and salinity: Distribution and determinants**	**RG**	**September**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
10	**Coral reefs: Formation, classification and threats**	**RBM**	**July**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
11	**Marine resources: Classification and sustainable utilization**	**RBM**	**August**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
12	**Sea level change: Types and causes**	**RBM**	**September**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	**Test examination in December 2021-22**
							Sign of final lab work in December 2021-22

GEO-A-CC-3-07-TH – Statistical Methods in Geography (TH)

Unit I: Frequency Distribution and Sampling & Unit II: Numerical Data Analysis

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
3.7.1	Importance and significance of statistics in Geography	HMK	July	TH (lecture method using ppt& interactive discussion)		MCQ& Short questions	
2	Discrete and continuous data, population and samples, scales of measurement (nominal, ordinal, intervaland ratio)	HMK	July	TH (lecture method using ppt& interactive discussion)		MCQ& Short questions	
3	Sources of geographical data for statistical analysis	HMK	August	TH (lecture method using ppt& interactive discussion)		MCQ& Short questions	
4	Collection of data and formation of statistical tables	HMK	August	TH (lecture method using ppt &interactive discussion)		MCQ& Short questions	
5	Sampling: Need, types, and significance and methods of random sampling	HMK	September	TH (lecture method using ppt &interactive discussion)		MCQ& Short questions	
6	Theoretical distribution: Frequency, cumulative frequency, normal and probability	HMK	July	TH (lecture method using ppt &interactive discussion)		MCQ& Short questions	
7	Central tendency: Mean, median, mode, partition values	HMK	August	TH (lecture method using ppt &interactive discussion)		MCQ& Short questions	
8	Measures of dispersion range, mean deviation, standard deviation, coefficient of variation	HMK	September	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
9	Association and correlation: Rank correlation, product moment correlation	HMK	July	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
10	Regression: Linear and non-linear	HMK	July	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
11	Time series analysis: Moving average	HMK	August	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
12	Hypothesis testing: Chi-squared test and T-test	HMK	August	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	

GEO-A-CC-3-06-P – Hydrology and Oceanography Lab

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
3.6.1 P	Construction and interpretation of rating curves	RG	July		Practical (Geo lab-21) & room no 19 (tracing unit)	Short questions & application oriented short examinations.	
2	Construction and interpretation hydrographs and unit hydrographs	RBM	July		Practical (Geo lab-21) & room no 19 (tracing unit)	Short questions & application oriented short examinations.	
3	Monthly rainfall dispersion diagram (Quartile method), Climatic water budget, and Ergograph	RG	August		Practical (Geo lab-21) & room no 19 (tracing unit)	Short questions & application oriented short examinations.	
4	Construction of Theissen polygon from precipitation data	HMK	August		Practical (Geo lab-21) & room no 19 (tracing unit)	Short questions & application oriented short examinations.	Test examination in December 2021-22
							Sign of final lab work in December 2021-22

GEO-A-CC-3-07-P – Statistical Methods in Geography Lab

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
3.7.1 P	Construction of data matrix with each row representing an areal unit mouzas / towns) and corresponding columns of relevant attributes	HMK	July		Practical (RS-GIS Lab) & room no 19 (tracing unit)	Short questions & application oriented short examinations.	
2	Based on the above, a frequency table, measures of central tendency and dispersionwould be computed and interpreted using histogram and frequency curve	HMK	August		Practical (RS-GIS Lab) & room no 19 (tracing unit)	Short questions & application oriented short examinations.	
3	From the data matrix, a sample set (20%) would be drawn using random, systematic andstratified methods of sampling and the samples would be located on a map with an explanation of the methods used	HMK	September		Practical (RS-GIS Lab) & room no 19 (tracing unit)	Short questions & application oriented short examinations.	
4	Based on of the sample set and using two relevant attributes, a scatter diagram andlinear regression line would be plotted and residual from regression would be mappedwith a short interpretation	HMK	October		Practical (RS-GIS Lab) & room no 19 (tracing unit)	Short questions & application oriented short examinations.	Test examination in December 2021-22
							Sign of final lab work in December 2021-22

GEO-A-SEC-A-3-02-TH – Tourism Management (TH)

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
A-3.1	Scope and Nature: Concepts and issues, tourism, recreation and leisure inter-relations	RBM	July	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
2	Factors influencing tourism, Types of Tourism: Ecotourism, cultural tourism, adventure tourism, medicaltourism, pilgrimage, international, national	RBM	August	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
3	Use of information on factors (Historical, natural, socio-cultural and economic; motivating factors forpilgrimages) to plan destination marketing; tourism products; niche tourism planning	RG	September	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
4	Tourism impact assessment, Sustainable tourism, Information Technology and Tourism, Tour operationsplanning and guiding	RG	October	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
5	Increasing Global tourism; Tourism in India: Tourism infrastructure, access, planning for different budgetsfor case study sites of Western Himalayas, Goa, Chilka/ Vembanad, Jaipur	RBM	October	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	Test examination in December 2021-22

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2021-22 (July to December) (Uneven semester)
5th Semester

GEO-A-CC-5-11-TH – Research Methodology and Fieldwork
Unit I: Research Methodology (TH)

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
1.1TH	Research in Geography: Meaning, types and significance	***RBM***	***July***	***TH (lecture method using ppt & interactive discussion)***		***Short questions***	
1.2TH	Literature review and formulation of research design	***RBM***	***July***	***TH (lecture method using ppt & interactive discussion)***		***Short questions***	
1.3TH	Defining research problem, objectives and hypothesis	***RBM***	***August***	***TH (lecture method using ppt & interactive discussion)***		***MCQ***	
1.4TH	Research materials and methods	***RBM***	***September***	***TH (lecture method using ppt & interactive discussion)***		***MCQ***	
1.5TH	Techniques of writing scientific reports: Preparing notes, references, bibliography, abstract and keywords	***RBM***	***September***	***TH (lecture method using ppt & interactive discussion***			
1.6TH	Plagiarism: Classification and	***RBM***	***September***	***TH (lecture method using ppt***			

	prevention			***& interactive discussion***			

Unit II: Field work (TH)

Unit	***Section***	***Teacher***	***Time frame***	***Theory***	***Practical***	***CIE***	***Internal examination***
2.1TH	Fieldwork in Geographical studies: Role and significance. Selection of study area and objectives. Pre-field academic preparations. Ethics of fieldwork	***RG***	***July***	***TH (lecture method using ppt & interactive discussion)***		***Short questions, MCQ & Viva***	
2.2TH	Field techniques and tools: Observation (participant, non-participant), questionnaires (open, closed, structured, non-structured). Interview	***RG***	***July***	***TH (lecture method using ppt & interactive discussion)***		***Short questions MCQ & Viva***	
2.3TH	Field techniques and tools: Landscape survey using transects and quadrants, constructing a sketch, photo and video recording[	***RG***	***August***	***TH (lecture method using ppt & interactive discussion)***		***Short questions MCQ & Viva***	
2.4TH	Positioning and collection of samples. Preparation of inventory from field data	***RG***	***August***	***TH (lecture method using ppt & interactive discussion)***		***Short questions MCQ & Viva***	

***2.*5TH**	Post-field tabulation, processing and analysis of quantitative and qualitative data	***RG***	**September**	**TH (lecture method using ppt & interactive discussion)**		**Short questions MCQ & Viva**	
***2.*6TH**	Fieldwork: logistics and handling of emergencies	***RG***	**September**	**TH (lecture method using ppt & interactive discussion)**		**Short questions MCQ & Viva**	

GEO-A-CC-5-11-P–ResearchMethodologyandFieldworkLab-

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
2.1.1	Each student will prepare a report based on primary data collected from field survey and secondary data collected from different sources.	HMK.RBM,RG	**July**		**GEO LAB(19)**	**Short questions& MCQ & Viva**	
2.1.2	Students will select either one rural area (*mouza*) or an urban area (municipal ward) for the study, with the primary objective of evaluating the relation between physical and cultural landscape.	HMK.RBM,RG	**July**		**GEO LAB(19)**	**Short questions& MCQ & Viva**	
2.1.3	Aspecificproblemoraspecialfeatureshouldbeidentifiedbasedonwhich,the study area will be selected.	HMK.RBM	**July**		**GEO LAB(19)**	**Short questions**	

2.1.4	The report should be handwritten in English on A4 size paper in candidate's own words within 5,000 words (Introductory Chapter: 1000 words; Physical Aspects: 1500 words; Socio-economic Aspects: 1500 words; Concluding Chapter: 500 words, approximately) excluding tables, photographs, maps, diagrams, references and appendices.	HMK.RBM	**August**		**GEO LAB(19)**	**Short questions**	
2.1.5	Photographs, maps and diagrams should not exceed 15pages.	HMK.RBM			**GEO LAB(19)**		
2.1.6	A copy of the bound report, duly signed by the concerned teacher, will be submitted during examination.	HMK.RBM			**GEO LAB(19)**		
2.1.7	The field work and post-field work will include: a. Collection of primary data on physical aspects (relief and soil) of the study area. Students should use survey instruments like prismatic compass, dumpy level, Abney level or clinometers where necessary. b. Collection of soil samples from different land cover land use regions of the study area for determining pH and NPK values with help of a soil kit. c. Collection of socio economic data, at the household level (with the help of a questionnaire) in the selected study area. d. Plot to plot land use survey for preparation of a land use map, covering whole or part of the selected area. e. Visit to different organizations and departments for	HMK.RBM			**GEO LAB(19)**		

	collection of secondary data. f. Any other survey relevant to the objective of the study.						
2.1.8	The Field Report should contain the following sections (a–e). a. Introduction: Study area extent and space relations, reasons for selection of the study area on the basis of a specific problem or special feature, objectives, methods of data collection, analyses and presentation, sources of information,etc. b. Physical aspects: Litho logy and geological structure, relief, slope, drainage, climate, soil, vegetation, environmental issues, proneness to natural hazards,etc. c. Socio-economic aspects: i. Population attributes: number, sex ratio, literacy, occupational structure, ethnic and religious composition, language, per capita income, etc. ii. Settlement characteristics: Number of houses, building materials, number and size of rooms, amenities,etc. iii. Agriculture: General land use, crop-combination, use of fertilizer and	HMK.RBM,RG			**GEO LAB(19)**		

	irrigational facilities, production and marketing etc. iv. Other economic activities: Fishing, horticulture, brick-making, household and other industries, etc. d. Conclusions: Relationbetweenphysicalandculturallandscape.Evaluationofproblems and prospects. General recommendations. e. Bibliography.						
2.1.9	The students will prepare (i) a chorochromatic land use land cover map on the basis of plottoplotsurvey;(ii)aprofileof250–1000m,surveyedandplotted,withdifferentland use land cover superimposed on it.	HMK.RBM,RG			**GEO LAB(19)**		
2.1.10	All sections of the report should contain relevant maps, diagrams and photographs using primary and secondary data, clearly Surveys not relevant for establishing the relation between physical and cultural landscape should be avoided.	HMK.RBM,RG			**GEO LAB(19)**		

GEO-A-CC-5-12-TH – Remote Sensing, GIS and GNSS

Unit I: Remote Sensing **(TH)**

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
1.1TH	Principles of Remote Sensing (RS): Types of RS satellites and sensors	***HMK***	***July***	***TH (lecture method using ppt & interactive discussion)***		***Short questions***	
1.2TH	Sensor resolutions and their applications with reference to IRS and Land sat missions	***HMK***	***July***	***TH (lecture method using ppt & interactive discussion)***		***Short questions***	
1.3TH	Image referencing schemes and acquisition procedure of free geospatial data from NRSC / Bhuvan and USGS	***HMK***	***August***	***TH (lecture method using ppt & interactive discussion)***		***MCQ***	
1.4TH	Preparation of False Colour Composites from IRS LISS-3 and Land sat TM / OLI data.	***HMK***	***September***	***TH (lecture method using ppt & interactive discussion)***		***MCQ***	
1.5TH	Principles of image interpretation. Preparation of inventories of land use land cover (LULC) features	***HMK***	***September***	***TH (lecture method using ppt & interactive discussion***			

	from satellite images						
1.6TH	Acquisition and utilization of free Digital Elevation Model data: CartoDEM, SRTM and ALOS						

Unit II: Geographical Information Systems and Global Navigation Satellite System

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
2.1TH	GIS data structures: types: spatial and non-spatial, raster and vector	***HMK***	***July***	***TH (lecture method using ppt & interactive discussion)***		***Short questions***	
2.2TH	Principles of preparing attribute tables and data manipulation and overlay analysis	***HMK***	***July***	***TH (lecture method using ppt & interactive discussion)***		***Short questions***	
2.8TH	Principles and significance of buffer preparation	***HMK***	***July***	***TH (lecture method using ppt & interactive discussion***			
2.9TH	Principles and significance overlay analysis	***HMK***	***July***	***TH (lecture method using ppt & interactive discussion***			

Unit III: Global Navigation Satellite System (GNSS)

3.1 TH	Principles of GNSS positioning and waypoint collection	***HMK***	***July***	***TH (lecture method using ppt & interactive discussion***			
3.2TH	Principles of transferring of GNSS waypoints to GIS. Area and length calculations from GNSS data	***HMK***	***July***	***TH (lecture method using ppt & interactive discussion***			

GEO-A-CC-5-12-P – Remote Sensing, GIS and GNSS Lab

4.1P	Image Georeferencing and enhancement. Preparation of reflectance libraries of LULC features across different image bands of IRS L3 or Land sat OLI data	***HMK***	***July***		***GEO LAB 19***		
4.2 P	Supervised image classification, class editing and post-classification analysis	***HMK***	***July***		***GEO LAB 19***		
4.3 P	Digitization of features and administrative boundaries. Data attachment, overlay and preparation of annotated thematic maps	***HMK***	***July***		***GEO LAB 19***		
4.4 P	Waypoint collection from GNSS receivers and exporting to GIS database	***HMK***	***July***		***GEO LAB 19***		

GEO-A-DSE-A-6-01-TH – Fluvial Geomorphology

3.1TH	ScopeandcomponentsofFluvialGeomorphology.Riversashydro systems.Geographers' Approach to study of rivers	***RBM***	***July***	***TH (lecture method using ppt & interactive discussion***			
3.2TH	Run off: components and controlling factors. Run off cycle	***RBM***	***July***	***TH (lecture method using ppt & interactive discussion***			
3.3TH	Models of channel initiation and network development	***RBM***	***July***	***TH (lecture method using ppt &***			

				interactive discussion			
3.4TH	Drainage basin and its significance as a hydrological unit	***RBM***	***July***	***TH (lecture method using ppt & interactive discussion***			
	Linear, areal and altitudinal properties of drainage basin. Horton's stream laws.	***RG***	***July***	***TH (lecture method using ppt & interactive discussion***			
3.5TH	Fundamentals of Rosgen stream classification system	***RG***	***July***	***TH (lecture method using ppt & interactive discussion***			
3.6TH	Fluvialmorphodynamics:Adjustmentofchannelformstotectonic,climatic,sealevel and land use changes	***RG***	***July***	***TH (lecture method using ppt & interactive discussion***			
3.7TH	Large rivers of the tropics: Characteristics and significance	***RG***	***July***	***TH (lecture method using ppt & interactive discussion***			
3.8TH	Fluvial landforms: Terraces, alluvial fans, badlands and accretion topography	***RG***	***July***	***TH (lecture method using ppt & interactive discussion***			
3.9TH	Human intervention on fluvial systems : Types and consequences	***RG***	***July***	***TH (lecture method using ppt & interactive discussion***			
4 TH	Riverbank erosion and river degeneration: Processes, management and impact on land use	***RG***	***July***	***TH (lecture method using ppt & interactive discussion***			
4.1TH	Integrated watershed management: Principles and significance	***RG***	***July***	***TH (lecture method using ppt & interactive discussion***			

GEO-A-DSE-A-6-01-P – Fluvial Geomorphology Lab

5.1P	Computation of channel pattern indices from river plan form	***RBM***	***July***		***GEO LAB 19***		

5.2P	Riverbank erosion: Quantification of eroded area and vulnerability zonation	***RG***	***July***		***GEO LAB 19***		
5.3P	Flood hazard zonation from flood frequency analysis	***RG***	***July***		***GEO LAB 19***		
5.4P	Analyses of pebbles: Shape indices	***RBM***	***July***		***GEO LAB 19***		

3.10 GEO-A-DSE-B-6-05-TH – Cultural and Settlement GeographyUnit I: Cultural Geography

6.1TH	Definition, scope and content of cultural geography	***RBM***	***July***	***TH (lecture method using ppt & interactive discussion***			
6.1TH	Development of cultural geography in relation to allied disciplines	***RBM***	***July***	***TH (lecture method using ppt & interactive discussion***			
6.2TH	Cultural hearth and realm, cultural diffusion, diffusion of major world religions and languages	***RBM***	***July***	***TH (lecture method using ppt & interactive discussion***			
6.3TH	Cultural segregation and cultural diversity, culture, technology and development	***RBM***	***July***	***TH (lecture method using ppt & interactive discussion***			
6.4TH	Races and racial groups of the world	***RBM***	***July***	***TH (lecture method using ppt & interactive discussion***			
6.5 TH	Cultural regions of India	***RBM***	***July***	***TH (lecture method using ppt & interactive discussion***			

Unit II: Settlement Geography

7.1 TH	Rural Settlement: Definition, nature and characteristics	***RG***	***July***	***TH (lecture method using ppt & interactive discussion***			
7.2 TH	Morphology of rural settlements: site and situation, layout-internal and external	***RG***	***July***	***TH (lecture method using ppt & interactive discussion***			
7.3 TH	Rural house types with reference to India, Social segregation in rural areas; Census Categories of rural settlements	***RG***	***July***	***TH (lecture method using ppt & interactive discussion***			
7.4 TH	Urban Settlements: Census definition (Temporal) and categories in India	***RG***	***July***	***TH (lecture method using ppt & interactive discussion***			
7.5 TH	Urban morphology: Models of Burgess, Hoyt, Harris and Ullman.	***RG***	***July***	***TH (lecture method using ppt & interactive discussion***			
7.6 TH	City-region and conurbation. Functional classification of cities: Schemes of Harris, Nelson and McKenzie	***RG***	***July***	***TH (lecture method using ppt & interactive discussion***			

GEO-A-DSE-B-6-05-P – Cultural and Settlement Geography Lab

8.1P	Mapping language distribution of India	***RBM***	***July***		***GEO LAB 19***	

8.2P	CD block-wise housing distribution in any district of West Bengal using proportional Square	***RG***			***GEO LAB 19***	
8.3P	Identification of rural settlement types from topo sheet	***RBM***			***GEO LAB 19***	
8.4P	Social area analysis of a city (Shevky& Bell)	***HMK***			***GEO LAB 19***	

LESSON PLAN OF GEOGRAPHY HONOURS FOR THE ACADEMIC SESSION 2020-21

EVEN SESSION

AZAD HIND FOUZ SMRITI MAHAVIDYALAYA

Dept. of Geography

Syllabus structuring & lesson plan

2021-22 (CBCS)

JANUARY TO JUNE 2020-21

2ND SEMETER

GEO-A-CC-2-03- – Human Geography (TH &P)

Unit I & II : Nature and Principles (TH/P)& Society, Demography and Ekistics

Unit	*Section*	*Teacher*	*Time frame*	*Theory*	*Practical*	*CIE*	*Internal examination*
1.1TH	**Nature, scope and recent trends. Elements of human geography**	***RBM***	***JANUARY***	***TH (lecture method using ppt & interactive discussion)***		***Short questions***	
2TH	**Approaches to Human Geography: Resource, locational, landscape, environment**	***RBM***	***JANUARY***	***TH (lecture method using ppt & interactive discussion)***		***Short questions***	
3TH	**Concept and classification of race. Ethnicity**	***RBM***	***JANUARY***	***TH (lecture method using ppt & interactive discussion)***		***MCQ***	
4TH	**Space, society and cultural regions (language and**	***RBM***	***MARCH***	***TH (lecture method using ppt &***		***MCQ***	

	religion)			***interactive discussion)***			
5TH	**Evolution of human societies: Hunting and food gathering, pastoral nomadism, subsistence farming and industrial society**	***RBM***	***MARCH***	***TH (lecture method using ppt & interactive discussion***			
6TH	**Human adaptation to environment: Case studies of Eskimo, Masai and Maori**	***RBM***	***APRIL***	***TH (lecture method using ppt & interactive discussion***			
7TH	**Population growth and distribution, composition; demographic transition**	***RG***	***MAY***	***TH (lecture method using ppt & interactive discussion***			
8TH	**Population–resource regions (Ackerman**	***RG***	***JUNE***	***TH (lecture method using ppt & interactive discussion***			
9TH	**Development–environment conflict**	***RG***	***JUNE***	***TH (lecture method using ppt & interactive discussion***			
10TH	**Types and patterns of rural settlements**	***RG***	***JUNE***	***TH (lecture method using ppt & interactive***			

				discussion			
11TH	**Rural house types in India**	***RG***	***JUNE***	***TH (lecture method using ppt & interactive discussion***			
12 TH	**Morphology and hierarchy of urban settlements**	***RG***	***JUNE***	***TH (lecture method using ppt & interactive discussion***			
13P	**Spatial variation in continent- or country-level religious composition by divided proportional circles**	***RBM***	***JUNE***	***PR(ROOM NO-22)***			
14P	**Measuring arithmetic growth rate of population comparing two decadal datasets**	***RG***	***JUNE***	***PR(ROOM NO-22)***			
15P	**Types of Age-Sex pyramids (progressive, regressive, intermediate and stationary): Graphical representation and analysis**	***RG***	***JUNE***	***PR(ROOM NO-22)***			

16P	**Nearest neighbour analysis from Survey of India 1:50k topographical maps (5' x 5')**	***RBM***	***JUNE***	***PR(ROOM NO-22)***			

GEO-A-CC-2-0-TH & P – Thematic Mapping and Surveying

Unit	*Section*	*Teacher*	*Time frame*	*Theory*	*Practical*	*CIE*	*Internal examination*
2.71 TH	**Concepts of rounding, scientific notation. Logarithm and anti-logarithm. Natural and log scales**	***HMK***	***JANUARY***	***TH (lecture method using ppt & interactive discussion)***		***Short questions***	
2.72 TH	**Concept of diagrammatic representation of data**	***RBM***	***JANUARY***	***TH (lecture method using ppt & interactive discussion)***		***Short questions***	
2.73 TH	**Preparation and interpretation of**	***HMK***	***JANUARY***	***TH (lecture method using***		***MCQ***	

	geological maps			***ppt & interactive discussion)***			
2.74 TH	**Preparation and interpretation of weather maps**	***RBM***	***MARCH***	***TH (lecture method using ppt & interactive discussion)***		***MCQ***	
2.75 TH	**Preparation and interpretation land use land cover maps**	***HMK***	***MARCH***				
2.76 TH	**Preparation and interpretation of socio-economic maps**	***RBM***	***MARCH***				
2.77TH	**Principal national agencies producing thematic maps in India: NATMO, GSI, NBSSLUP, NHO, NRSC / Bhuvan, etc.**	***HMK***	***MARCH***				
2.78TH	**Basic concepts of surveying and survey equipment: Prismatic compass**	***HMK***	***APRIL***				
2.79 TH	**Basic concepts of surveying and survey equipment: Dumpy level**	***HMK***	***APRIL***				
2.710TH	**Basic concepts of surveying and survey equipment:**	***HMK***	***APRIL***				

	Theodolite						
2.11 TH	**Basic concepts of surveying and survey equipment: Abney level**	***HMK***	***APRIL***				
2.712TH	**Basic concepts of surveying and survey equipment: Laser distance measurer**	***HMK***	***APRIL***				
2.81P	**Traverse survey using prismatic compass**	***HMK***	***MAY***		**Practical (Geo lab-21) & room no 19**		
2.82P	**Profile survey using dumpy Level**	***HMK***	***MAY***		**Practical (Geo lab**		
2.83P	**Height determination of base accessible and inaccessible (same vertical plane method) objects by theodolite**	***HMK***	***MAY***		**Practical (Geo lab**		
2.84P	**Interpretation of geological maps with uniclinal structure, folds, unconformity, and intrusions**	***HMK***	***JUNE***		**Practical (Geo lab**		

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Dept. of Geography
Syllabus structuring & lesson plan
2021-22 (CBCS)
January to June (2021-22)
4TH Semester
GEO-A-CC-4-08-TH – Economic Geography (TH)

Unit I: Concepts:

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
4.1	Meaning and approaches to economic geography	RBM	January	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
2	Concepts in economic	RBM	February	TH (lecture		MCQ& Short	

	geography: Goods and services, production, exchange and consumption			**method using ppt & interactive discussion)**		**questions**	
3	**Concept of economic man, theories of choices**	**RBM**	**February**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
4	**Economic distance and transport costs**	**RBM**	**March**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	

Unit II: Economic Activities:

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
4. II. 1	**Concept and classification of economic activities**	**RG**	**January**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
2	**Factors affecting location of economic activity with special reference to agriculture**	**HMK**	**February**	**TH (lecture method using ppt & interactive discussion**		**MCQ& Short questions**	
3	**Primary activities: Agriculture, forestry, fishing and mining**	**RG**	**February**	**TH (lecture method using ppt & interactive discussion**		**MCQ& Short questions**	

4	**Secondary activities: Classification of manufacturing, concept of manufacturing regions, special economic zones and technology parks**	**RG**	**March**	**TH (lecture method using ppt & interactive discussion**		**MCQ& Short questions**	
5	**Tertiary activities: Transport, trade and services**	**RG**	**January**	**TH (lecture method using ppt & interactive discussion**		**MCQ& Short questions**	
6	**Transnational sea-routes, railways and highways with reference to India**	**RG**	**February**	**TH (lecture method using ppt & interactive discussion**		**MCQ& Short questions**	
7	**International trade and economic blocs**	**RBM**	**February**	**TH (lecture method using ppt & interactive discussion**		**MCQ& Short questions**	
8	**WTO and BRICS: Evolution, structure and functions**	**RBM**	**March**	**TH (lecture method using ppt & interactive discussion**		**MCQ& Short questions**	**Test examination in June 2021-22**

GEO-A-CC-4-08-P – Economic Geography Lab

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
4-P.1	**Choropleth mapping of state-wide variation in GDP**	**RBM**	**January**		**Practical (GEO Lab R-21) & room**	**Short questions & application**	

					no 19 (tracing unit)	**oriented short examinations.**	
2	**State-wide variation in occupational structure by proportional divided circles**	**RBM**	**February**		**Practical (GEO Lab R21) & room no 19 (tracing unit)**	**Short questions & application oriented short examinations.**	
3	**Time series analysis of industrial production (India and West Bengal**	**RG**	**January**		**Practical (GEO Lab R21) & room no 19 (tracing unit)**	**Short questions & application oriented short examinations.**	
4	**Transport network analysis by detour index and shortest path analysis**	**RG**	**February**		**Practical (GEO Lab R21) & room no 19 (tracing unit)**	**Short questions & application oriented short examinations.**	**Test examination in June 2020-21**
							Sign of final lab work in June2021-22

GEO-A-CC-4-09-TH – Regional Planning and Development

Unit I: Regional Planning:

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination

4.9.1	**Concept of regions: Types of regions and their delineation**	**RBM**	**January**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
2	**Regional Planning: Types, principles, objectives, tools and techniques**	**RBM**	**February**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
3	**Regional planning and multi-level planning in India**	**RBM**	**March**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
4	**Metropolitan concept and urban agglomerations**	**RBM**	**April**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	**Test examination in June 2021-22**

Unit II: Regional Development:

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination

4.9. II.1	**Concepts of growth and development, growth versus development**	**RG**	**January**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
2	**Indicators of development: Economic, social and environmental**	**RG**	**February**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
3	**Human development: Concept and measurement**	**RG**	**March**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
4	**Theories and models for regional development: Cumulative causation**	**HMK**	**April**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
5	**Theories and models for regional development: Stages of development (Rostow), growth pole model (Perroux)**	**HMK**	**January**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
6	**Concept and causes of underdevelopment**	**RG**	**February**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	

7	**Regional development in India: Disparity and diversity**	**RG**	**March**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
8	**Need and measures for balanced development in India**	**RG**	**April**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	**Test examination in June 2021-22**

GEO-A-CC-4-09-P – Regional Planning and Development Lab

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
4.9.P-1	**Delineation of formal regions by weighted index method**	**HMK**	**January**		**Practical (GEO Lab R-21) & room no 19 (tracing unit)**	**Short questions & application oriented short examinations.**	
2	**Delineation of functional regions by breaking point analysis**	**HMK**	**February**		**Practical (GEO Lab R-21) & room no 19 (tracing unit)**	**Short questions & application oriented short examinations.**	
3	**Measurement of inequality by location quotient**	**HMK**	**March**		**Practical (GEO Lab R-21) & room**	**Short questions & application**	

					no 19 (tracing unit)	**oriented short examinations.**	
4	**Measuring regional disparity by Sopher index**	**HMK**	**April**		**Practical (GEO Lab R-21) & room no 19 (tracing unit)**	**Short questions & application oriented short examinations.**	**Test examination in June 2020-21**
							Sign of final lab work in June2021-22

GEO-A-CC-4-10-TH – Soil and Biogeography

Unit I: Soil Geography:

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination

4.10. I.1	**Factors or soil formation. Man as an active agent of soil transformation**	**HMK**	**January**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
2	**Soil profile. Origin and profile characteristics of lateritic, podzol and chernozem soils**	**HMK**	**February**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
3	**Definition and significance of soil properties: Texture, structure and moisture**	**HMK**	**March**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
4	**Definition and significance of soil properties: pH, organic matter and NPK**	**HMK**	**April**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
5	**Soil erosion and degradation: Factors, processes and mitigation measures**	**RG**	**January**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
6	**Principles of soil classification: Genetic and USDA. Concept of land capability and its**	**RG**	**February**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	**Test examination in June 2021-22**

	classification						

Unit II: Biogeography:

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination

4.10. II.1	**Concepts of biosphere, ecosystem, biome, ecotone, community and ecology**	**RBM**	**January**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
2	**Concepts of trophic structure, food chain and food web. Energy flow in ecosystems**	**RBM**	**February**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
3	**Classification of world biomes (Whittaker). Geographical extent and characteristics of tropical rain forest, savanna, hot desert, taiga and coral reef biomes**	**HMK**	**January**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
4	**Bio-geochemical cycles with special reference to carbon dioxide and nitrogen**	**HMK**	**February**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
5	**Deforestation: Causes, consequences and management**	**RBM**	**March**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
6	**Biodiversity: Definition, types, threats and**	**RBM**	**April**	**TH (lecture method using ppt &**		**MCQ& Short questions**	**Test examination in June 2021-**

	conservation measures			**interactive discussion)**			**22**

GEO-A-CC-4-10-P – Soil and Biogeography Lab

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
4.10. P.1	**Determination of soil reaction (pH) and salinity using field kit**	**RBM**	**January**		**Practical (GEO Lab R-21) & room no 19 (tracing unit)**	**Short questions & application oriented short examinations.**	
2	**Determination of soil type by ternary diagram textural plotting**	**RG**	**February**		**Practical (GEO Lab R-21) & room no 19 (tracing unit)**	**Short questions & application oriented short examinations.**	
3	**Plant species diversity determination by matrix method**	**HMK**	**March**		**Practical (GEO Lab R-21) & room no 19 (tracing unit)**	**Short questions & application oriented short examinations.**	
4	**Time series analysis of biogeography data**	**HMK**	**January**		**Practical (GEO Lab R-21) & room no 19 (tracing unit)**	**Short questions & application oriented short**	**Test examination in June 2021-22**

						examinations.	
							Sign of final lab work in June2021-22

GEO-A-SEC-B-4- -TH – Sustainable Development

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
B.4.1	**Sustainable development: Concept, Historical background, components, limitations**	**RBM**	**March**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
2	**Challenges of sustainable development: Determinants, linkage among sustainable development, environment and poverty**	**RBM**	**April**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
3	**Global environmental issues: Population, income and urbanization, health care, forestand water resources**	**RG**	**April**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
4	**Global goals for sustainable development:**	**RG**	**May**	**TH (lecture method using ppt &**		**MCQ& Short questions**	**Test examination in June 2021-**

	Domain, conflict, crisis and compromise			**interactive discussion)**			**22**

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Dept. of Geography

Syllabus structuring & lesson plan

2021-22 (CBCS)

January to June (2021-22)

6TH Semester

GEO-A-CC-6-13-TH–EvolutionofGeographicalThought

Unit I: Nature of Pre Modern Geography:

Unit	Section	Teacher	Time frame	Theory	Prac	CIE	Internal examination
6.13.I.1	Development to modern Geography: Contributions of Greek, Chinese, and Indian geographers	HMK	January	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
2	Impact of' Dark Age' in Geography and Arab contributions	HMK	February	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
3	Geographyduringtheageof'Discovery'and'Exploration'(contributionsofPortuguese voyages, Columbus, Vasco da Gama, Magellan, Thomas Cook)	HMK	February	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
4	Transition from cosmography to scientific Geography contributions of Bernard Varenius and Immanuel Kant). Dualism and Dichotomies (General vs. Particular, Physical vs. Human,Regionalvs.Systematic,Determinismvs.Possibilism,Ideographicvs.Nomothetic)[	HMK	March	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	Test exam in June 2021-22

Unit II: Foundations of Modern Geography and Recent Trends

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
6.13. II. 1	Evolution of Geographical thoughts in Germany ,France, Britain and United States of America[5] Contributions of Humboldt and Ritter	RBM	January	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
2	Contributions of Richthofen, Hartshorne– Schaeffer,Ratzel, LaBlaché	RBM	February	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
3	1. Trends of geography in the post World War –II period :Quantitative revolution, systems approach[7] Structuralism and historical materialism	RBM	February	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
4	Changing concept of space with special reference to Harvey	RBM	March	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
5	1. Evolution of Critical Geography :Behavioral ,humanistic and radical[5] Towards postmodernism: Geography in the 21st Century	RBM	April	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	Test (internal) examination in June 2021-22

GEO-A-CC-6-13-P–EvolutionofGeographicalThoughtLab

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
13.6. P. 1	Changing Perception of maps of the world (Ptolemy, IbnBatuta, Mercator)	RG	March		Practical (GEO Lab R-21) & room no 19 (tracing unit)	Short questions & application oriented short examinations.	
2	Mapping voyages ;Columbus ,Vasco da Gama ,Magellan , Thomas Cook	RG	March		Practical (GEO Lab R-21) & room no 19 (tracing unit)	Short questions & application oriented short examinations.	Test examination in June 2021-22.
3	Group Presentation of 5–10 students any selected school of geographical thought	RBM, RG & HMK	March to June		Practical (GEO Lab R-21) & room no 19 (tracing unit)	Short questions & application oriented short examinations.	Sign of final lab work in June2021-22

GEO-A-CC-6-14-TH–HazardManagement

Unit I: Concepts

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
6.14. I.1	Classification of hazards and disasters .Hazard continuum	RBM	February	TH (lecture method using ppt & interactive discussion		MCQ& Short questions	
2	Approaches to hazard study: Risk perception and vulnerability assessment .Hazard paradigms	RBM	March	TH (lecture method using ppt & interactive discussion		MCQ& Short questions	Test (internal) exam in June 2021-22
3	Responses to hazards: Preparedness, trauma and	RBM	April	TH (lecture method using ppt & interactive		MCQ& Short questions	

	after math. Resilience and capacity building			**discussion)**			
4	**Hazard mapping: Data and geospatial techniques**	**RBM**	**May**	**TH (lecture method using ppt & interactive discussion**		**MCQ& Short questions**	

Unit II: Hazard-specific Study with Focus on West Bengal and India

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
6.14.II.1	**Earthquake: Factors, vulnerability ,consequences and management**	**RG**	**February**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
2	**Landslide: Factors, vulnerability ,consequences and management**	**RG**	**March**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
3	**Tropical Cyclone: Factors, vulnerability, consequences and management**	**RG**	**April**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
4	**Flood: Factors, vulnerability ,consequences and management**	**RG**	**May**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
5	**Riverbank erosion :Factors, vulnerability ,consequences and management**	**RG**	**February**	**TH (lecture method using ppt & interactive**		**MCQ& Short questions**	**Test (internal) examination in June 2021-22**

				discussion)			
6	Fire: Factors ,vulnerability, consequences and management	RG	March	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
7	Biohazard:Classification,vulnerability,consequencesandmanagement	RG	April	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	

GEO-A-CC-6-14-P–HazardManagementLab

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
6.14.P1-3	A Group Project Report is to be prepared and submitted based on any one case study among the following hazards from West Bengal, incorporating preparedness plan, preferably in the vicinity of the candidates' institution / district	RBM, HMK & RG	January to May		Practical (GEO Lab R-21) & room no 19 (tracing unit & RS-GIS Lab)	Short questions & application oriented short examinations.	Test examination in June 2021-22; Sign of final lab work in June2021-22

GEO-A-DSE-A-6-04-TH–Resource Geography

Unit I: Resource and Development

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
A.6.04.1	Natural Resources: Concept and classification	RBM	March	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
2	Approaches to Resource Utilization :Utilitarian ,Conservational ,Community based adaptive	RBM	April	TH (lecture method using ppt & interactive discussion)		MCQ& Short questions	
3	Significance of Resources :Backbone of Economic growth	RBM	March	TH (lecture method using ppt &		MCQ& Short questions	

	and development			**interactive discussion)**			
4	**Pressure on resources .Appraisal and Conservation of Natural Resources**	**RBM**	**April**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
5	**Problems of resource depletion—global scenario (forest, water ,fossil fuels**	**RBM**	**May**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
6	**Sustainable Resource Development**	**RBM**	**May**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	**Test (internal) examination in June 2021-22**

Unit II: Resource Conflict and Management

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
A.6.04.II .1	**Distribution,Utilisation,ProblemsandManagementofMetallic MineralResources:Ironore,Bauxite,copper**	**RG**	**March**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	

2	**Distribution,Utilisation,ProblemsandManagementofNon-MetallicMineralResources:Limestone,Mica, Gypsum**	**RG**	**April**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
3	**Distribution,Utilisation,ProblemsandManagementofEnergyResources:ConventionalandNon-Conventional**	**RG**	**March**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
4	**Contemporary Energy Crisis and Future Scenario**	**RG**	**April**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
5	**Politics of Power resources**	**RG**	**March**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
6	**LimitstoGrowthandSustainableUseofResources;ConceptofResourcesharing**	**RG**	**April**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	**Test (internal) examination in June 2021-22**

GEO-A-DSE-A-6-04-P–Resource Geography Lab

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination
A-6-4-P.1	**Mapping of forest cover from satellite images**	**HMK**	**January**		**Practical (GEO Lab R-21) & room no 19 (tracing unit & RS-GIS Lab)**	**Short questions & application oriented**	

						short examinations.	
2	**Mapping of water bodies from satellite images**	**HMK**	**February**		**Practical (GEO Lab R-21) & room no 19 (tracing unit & RS-GIS Lab)**	**Short questions & application oriented short examinations.**	
3	**Decadal changes in state-wise production of coal and iron ore**	**HMK**	**February**		**Practical (GEO Lab R-21) & room no 19 (tracing unit & RS-GIS Lab)**	**Short questions & application oriented short examinations.**	
4	**Computing Human Development Index :comparative decadal change of top five Indian states**	**HMK**	**March**		**Practical (GEO Lab R-21) & room no 19 (tracing unit & RS-GIS Lab)**	**Short questions & application oriented short examinations.**	**Test (internal) examination in June 2021-22**
							Sign of final lab work in June2021-22

GEO-A-DSE-B-6-08-TH– Geography of India

Unit I: Geography of India

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination

B-6-8-I-1	**Physiographic divisions with reference to tectonic provinces**	**RG**	**January**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
2	**Climate, soil and vegetation :Classification and interrelation**	**RG**	**February**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
3	**Population: Distribution ,growth, structure and policy**	**RG**	**February**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
4	**Tribes of India with special reference to Gaddi, Toda ,Santal and Jarwa**	**RG**	**March**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
5	**Agricultural regions. Green revolution and its consequences**	**RG**	**April**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
6	**Mineral and power resources :Distribution and utilization of iron ore ,coal ,petroleum and natural gas**	**RG**	**May**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
7	**Industrial development: Automobile and information technology**	**RG**	**May**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
8	**Regionalization of India: Physiographic (R.L.Singh)and economic (P.Sengupta)**	**RG**	**May**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	**Test (internal) examination in June 2021-22**

Unit II: Geography of West Bengal

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination

B-6-8-II-1	**Physical perspectives :Physiographic divisions ,forest and water resources**	**RBM**	**March**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
2	**Resources :Agriculture ,mining ,and industry**	**RBM**	**April**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
3	**Population :Growth ,distribution and human development**	**RBM**	**May**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	
4	**Regional Issues: Darjeeling Hills and Sundarban**	**RBM**	**May**	**TH (lecture method using ppt & interactive discussion)**		**MCQ& Short questions**	**Test (internal) examination in June 2021-22**

GEO-A-DSE-B-6-08-P–Geography of India Lab

Unit	Section	Teacher	Time frame	Theory	Practical	CIE	Internal examination

B-6-8-P-1	**Monthly temperature and rainfall graphs of five select stations from different physiographic regions of India**	**RG**	**March**		**Practical (GEO Lab R-21) & room no 19 (tracing unit & RS-GIS Lab)**	**Short questions & application oriented short examinations.**	
2	**Crop Combination :Comparison of any two contrasting districts in West Bengal**	**RBM**	**April**		**Practical (GEO Lab R-21) & room no 19 (tracing unit & RS-GIS Lab)**	**Short questions & application oriented short examinations.**	
3	**Annual trends of production :Mineral resources and manufacturing goods over two decades**	**RG**	**May**		**Practical (GEO Lab R-21) & room no 19 (tracing unit & RS-GIS Lab)**	**Short questions & application oriented short examinations.**	
4	**Composite Index :Comparison of developed and backward states**	**HMK**	**May**		**Practical (GEO Lab R-21) & room no 19 (tracing unit & RS-GIS Lab)**	**Short questions & application oriented short examinations.**	**Test (internal) examination in June 2021-22**
							Sign of final lab work in June2021-22