NEP and Learning Outcome-based Curriculum Framework (LOCF)

For

Scheme UG A2: Undergraduate Program (B.A.): Single Major

GEOGRAPHY SUBJECT

(To be effective from the Academic Session 2024-25)

GURUGRAM UNIVERSITY, GURUGRAM

(A State University established by Govt. of Haryana Act No. 17 of 2017)

Scheme of Programme

Scheme UG A2: Undergraduate Program: Single Major (Geography Subject)

Semester 1

Course Code	Course Title	Course ID	L (Hrs)	T (Hrs)	P (Hrs)	L Credits	T Credits	P Credits	Total Credits	MARKS				
										TI	TE	PI	PE	Total
Core Course(s)														
CC-A1	Geography of India (Theory)	240/GEO/CC101	3	1	0	3	1	0	4	30	70	-	-	100
CC-A2	Geography of Environment (Theory)	240/GEO/CC102	3	1	0	3	1	0	4	30	70	-	-	100
CC-A3	General Cartography (Practical)	240/GEO/CC103	0	0	8	0	0	4	4	-	-	30	70	100
Minor/ Vocational Course(s)														
MIC-1	One from Pool								2					50
Multidisciplinary Course(s)														
MDC-1	One from Pool								3					75
Ability Enhancement Course(s)														
AEC-1	One from Pool								2					50
Skill Enhancement Course(s)														
SEC-1	One from Pool								3					75
Value-added Course(s)														
VAC-1	One from Pool								2					50
Total Credits									24					600

Semester 2

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
Core Course(s)														
CC-A4	Physical Geography (Theory)	240/GEO/CC201	3	1	0	3	1	0	4	30	70	-	-	100
CC-A5	Fundamentals of Human Geography (Theory)	240/GEO/CC202	3	1	0	3	1	0	4	30	70	-	-	100
CC-A6	Landform Features and its interpretation (Practical)	240/GEO/CC203	0	0	8	0	0	4	4	-	-	30	70	100
Minor/ Vocational Course(s)														
MIC-2	One from Pool								2					50
Multidisciplinary Course(s)														
MDC-2	One from Pool								3					75
Ability Enhancement Course(s)														
AEC-2	One from Pool								2					50
Skill Enhancement Course(s)														
SEC-2	One from Pool								3					75
Value-added Course(s)														
VAC-2	One from Pool								2					50
Total Credits									24					600

Semester 3

Course Code	Course Title	Course ID	L (Hrs)	T (Hrs)	P (Hrs)	L Credits	T Credits	P Credits	Credits	MARKS				
										TI	TE	PI	PE	Total
Core Course(s)														
CC-A7	Oceanography (Theory)	240/GEO/CC301	3	1	0	3	1	0	4	30	70	-	-	100
CC-A8	Introduction to Philosophy of Geography (Theory)	240/GEO/CC302	3	1	0	3	1	0	4	30	70	-	-	100
CC-A9	Principles of Land Surveying (Practical)	240/GEO/CC303	0	0	8	0	0	4	4	-	-	30	70	100
Minor/ Vocational Course(s)														
MIC-3	One from Pool								4					100
Multidisciplinary Course(s)														
MDC-3	One from Pool								3					75
Ability Enhancement Course(s)														
AEC-3	One from Pool								2					50
Total Credits									21					525

Semester 4

Course Code	Course Title	Course ID	L (Hrs)	T (Hrs)	P (Hrs)	L Credits	T Credits	P Credits	Credits	MARKS				
										TI	TE	PI	PE	Total
Core Course(s)														
CC-A10	Introductory Climatology (Theory)	240/GEO/CC401	3	1	0	3	1	0	4	30	70	-	-	100
CC-A11	Statistical Methods in Geography (Theory)	240/GEO/CC402	3	1	0	3	1	0	4	30	70	-	-	100
CC-A12	Statistical Methods in Geography (Practical)	240/GEO/CC403	0	0	8	0	0	4	4	-	-	30	70	100
Minor/ Vocational Course(s)														
MIC/ VOC-4	One from Pool								4					100
Ability Enhancement Course(s)														
AEC-4	One from Pool								2					50
Value-added Course(s)														
VAC-3	One from Pool								2					50
Total Credits									20					500

Semester 5

Course Code	Course Title	Course ID	L (Hrs)	T (Hrs)	P (Hrs)	L Credits	T Credits	P Credits	Credits	MARKS				
										TI	TE	PI	PE	Total
Core Course(s)														
CC-A13	Economic and Resource Geography (Theory)	240/GEO/CC501	3	1	0	3	1	0	4	30	70	-	-	100
CC-A14	Regional Geography of Asia (Theory)	240/GEO/CC502	3	1	0	3	1	0	4	30	70	-	-	100
CC-A15	Map Projections and Contemporary Techniques of Cartography (Practical)	240/GEO/CC503	0	0	8	0	0	4	4	-	-	30	70	100
Minor/ Vocational Course(s)														
MIC-5	One from Pool								4					100
Skill Enhancement Course(s)														
Internship									4					100
Total Credits									20					500

Semester 6

Course Code	Course Title	Course ID	L (Hrs)	T (Hrs)	P (Hrs)	L Credits	T Credits	P Credits	Credits	MARKS				
										TI	TE	PI	PE	Total
Core Course(s)														
CC-A16	Introduction to Geo-spatial technology (Theory)	240/GEO/CC601	3	1	0	3	1	0	4	30	70	-	-	100
CC-A17	Element of Population Geography (Theory)	240/GEO/CC602	0	0	8	0	0	4	4	-	-	30	70	100
CC-A18	Aerial Photographs and Field Work (Practical)	240/GEO/CC603	2	1	0	2	1	0	3	25	50	-	-	75
Minor/ Vocational Course(s)														
MIC-6	One from Pool								4					100
MIC-7	One from Pool								4					100
Skill Enhancement Course(s)														
SEC-3	One from Pool								3					75
Total Credits									22					550

1. ***The curriculum of semester 7 and 8 will is provided in due course of time.***

Based on the scheme for the undergraduate program-Single Major (GEOGRAPHY)

This Learning Outcome based Curriculum Framework (LOCF) is designed to emphasize the teaching and learning process at the undergraduate (B.A.) program-Single Major **(Geography)** from teacher centric to student centric by strengthening the quality of teaching and learning in the present day real life scenario of global, regional and local level. It is considered learning as an activity of creativity of innovations and analyzing geographical phenomena. The purpose is to enhance the capability of the students in perceiving, creating and analyzing sound geographical bases and concepts.

Geography has been broadly accepted as a bridge discipline between human and physical sciences. In the beginning, geography focused on the physical aspects of the earth but the modern geography is an all-encompassing discipline that seeks to understand the earth and all of its human and natural processes as integrating elements. Geography has emerged through time as a Trans- disciplinary subject integrating the regional diversity with the concepts of the timing of space and the spacing of time. It provides broad, human and place-centred perspectives on the transformation of rural ecology to globalized urban landscape at different levels, from the local/regional/national to global.

Geography is transformed through:-

- Journey from Village Ecology to Urban Regional Studies
- Qualitative Techniques to Spatial Information Technology
- Global to Micro-level Community Perception Approach

It is essential to focus on the current socio-spatial problems, issues and challenges to make the students aware of the application of geography to sort out the societal upcoming problems. It is essential to rejuvenate the ancestral geographical knowledge to address the current local and global problems. Geography curriculum is also essential to revision incorporates dynamic processes including fundamental and modern techniques, contemporary paradigms such as global initiatives like Sustainable Development Goals (SDGs), Disaster Risk Reduction (DRR), Climate Action and national initiatives like smart cities, Securities of food, water, energy, human health and livelihood, biodiversity, and disaster management. The approaches are to make geography more scientific and societal-need oriented that could be the panacea of India's developmental challenges. Geography uses scientific knowledge with the current focus that includes spatio-temporal analysis, skill development, GIScience, sustainable development and human security.

The following objectives would be achieved from the Single Major-Geography Course framework:-

- To orient the students towards identification and analysis of various facets of geographical features and processes.
- To develop an overall idea about the natural, social and cultural environment over the surface.
- To facilitate the students to learn skills of map making.
- To develop students' aptitude for acquiring basic skills of carrying out field work.
- To guide students to learn the science and art of collecting, processing and interpreting the data.
- To expose the students to the use of the updated technologies of remote sensing, IRNSS (Indian Regional Navigation Satellite System), GNSS (Global Navigation Satellite System), Geographical Information System (GIS) and GIScience (Geographic Information Science).

Program Outcomes (POs):-

- ❖ To achieve a holistic understanding of the subject, putting equal weightage to the core content and techniques used in Geography.
- ❖ To impart basic knowledge on Geography as a spatial science and train the undergraduates to secure employment in the sectors of geospatial analysis, development and planning, mapping, and surveying.
- ❖ To secure a job at the end of the undergraduate programme. Keeping this in mind and in tune with the changing nature of Geography, adequate emphasis is rendered on applied aspects of the subject such as emerging techniques of mapping and field-based data generation, especially in the single major course.
- ❖ To achieve an overall idea about the natural, social and cultural environment developed over the surface.
- ❖ To get the idea of daily weather and climate system, consequences of climate change and most of all the causes and consequences of global warming which are the burning topic/problems of the present times.
- ❖ To learn the idea of making suitable questionnaire, data collection, tabulation and analysis and to make correlation of the physical and socio-economic features of any area by visiting and surveying the area.
- ❖ To correlate the theoretical knowledge with practical curricula to develop a holistic idea on various landforms in the light of their evolution.
- ❖ To get an idea about the first-hand feel of independent research activities which is done after surveying an area as per the rules of the curriculum. This acts as a foundation for their future research activities.

- ❖ To develop the soft skill of the students by introducing the computer and software oriented courses (GIS) which is now an essential requisite for the scholars who intend to pursue higher studies and research.
- ❖ .To cultivate ability to evaluate critically the wider chain of network of spatial aspects from global to local level on various time scales as well.
- ❖ Recognize the skill development in Geographical studies programme as part of popular career avenues in various fields like academics (teacher/lecturer/professor), researcher in organisations, administrator, cartographers, Environmental consultant, urban planner, tourism officer, GIS specialist, demographer, hydrologist etc.

Program Specific Outcomes (PSOs):-

Five distinct and new learning outcomes have been incorporated from each course such as to:

- Understand the relevance of geographical knowledge to everyday life.
- Getting the ability to communicate geographic information by utilizing both lecture and practical exercises.
- Inculcate the ability to evaluate and solve geographical problems effectively.
- Based on the field knowledge and advanced technologies, the students should be able to understand the on-going geographical problems in different regions and levels with appropriate pragmatic solutions.
- Exhibit the skill in using geographical research tools including spatial statistics, general cartography & advanced cartography, RS, GIS, IRNSS and GIScience.

Outline of Undergraduate (Single Major-Geography) Syllabus based on NEP:-

1. Core Course (CC): A course which should compulsorily be studied by a candidate as a core requirement is termed as a CC.

2. Multidisciplinary Course (MDC): Generally a course which can be chosen from a pool of courses and which may be very specific or specialized or advanced or supportive to the discipline/subject of study or which provides an extended scope or which enables an exposure to some other discipline/ subject/ domain or nurtures the candidate's proficiency/skill is called an MDC.

3. Minor/Vocational Course (MIC): An elective course chosen generally from an unrelated discipline/subject, with an intention to seek exposure is called a Minor.

A core course offered in a discipline/subject maybe treated as an elective by other discipline/subject and vice versa and such electives may also be referred to as Minor/Vocational.

4. Skill Enhancement Course (SEC): Skill Enhancement Course means a course designed to provide value-based or skill-based knowledge and should contain both theory and lab/hands-on/training/fieldwork. The main purpose of these courses is to provide students with life-skills in the hands-on mode to increase their employability.

5. Value-added Course (VAC): Value-added courses are conducted by the faculty members of the department or interfacing with the industry to bridge the gap between the curriculum and the requirements of the industry.

6. Educational Tours – The visit to major industries, resources places, different cultural and social places in Haryana and visit also to a local polluted site-Urban/Rural/Industrial/Agricultural will provide the students with a firsthand experience of the topics of study and emphasize their importance and significance to the present world.

7. Field Work/Study – Taking up a small project on a related topic that could include collection of data through surveys or interviews could enhance communication skills of the students and enable them to propose a study subject and produce a report based on the data collected. This will form a vital part of the skill acquisition to undertake further research.

8. Writing Assignments- Since international relations studies would also entail extensive writing ability, practical training in writing essays, reports and favoring or opposing an argument or thesis, students must continuously be subjected to assignment writing so that they are well versed with the nuances of writing for a variety of purposes.

9. Seminar Presentation – Conducting seminars where student choose specific topics on which they research and present to an audience forms a vital part of developing skills of communication as well as organizing thought in a logical and cohesive manner.

10. Project work- Project work is considered as a special course involving application of knowledge in solving/analyzing/exploring a real-life situation/difficult problem. A Project work may be given in lieu of a discipline specific elective paper.

B.A. Geography (Single Major)

(As per NEP 2020 w.e.f session 2024-25)

Semester-I

Geography of India

Course Code: **CC-A1 (Theory: Core Paper)**

Course Id: **240/GEO/CC101**

Programme/Class: B.A. Year: 1 Semester: I Credit: 04 (3+1+0) L+T+P Hrs/Week	Total Marks:	100
Examination Time: 3 Hours	End Semester Exam:	70 Marks
Course Outcome:- 1. They can know about their own countries land formation, climate and natural vegetation. 2. They understand the economic resources of India. 3. They understand the social distribution of population of their country. 4. Develop an idea about regionalisation of India.	Internal Assessment: Attendance Assignment Sessional Exam	30 Marks 5 5 20
Instructions for Paper-Setter:- Question 1 is compulsory comprising seven sub-parts spread over the entire syllabus (two marks for each sub-part), to be answered in 15-20 words. There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.		

UNIT -I

Geological regions of India; Physiographic divisions of India: Himalayas, Indo-Gangetic Plains, Peninsular Plateaus, Thar desert, Coastal plains, Islands. Extra peninsular drainage: Indus, Ganga and Brahmaputra River systems; Peninsular drainage: east flowing rivers and west flowing river; difference in peninsular and extra-peninsular drainage.

UNIT -II

Characteristics and distribution of soil in India, Major type of vegetation found in India, climate system in India. Indian monsoon: Classical and Modern theory; Koppen's Classification of India.

UNIT -III

The Peopling of India. Population distribution, density and growth. Population composition: ethnic and socio-cultural attributes (castes and tribes), Population explosion and food security.

UNIT -IV

Unity in diversity in India. Distribution and production of major agricultural crops; distribution and production of iron, coal and petroleum, transportation network.

Suggested Reading:

- Bindra, S.S. (1989), **"India and Her Neighbors",** Deep and Deep Publications, New Delhi.
- Chatterjee, Rupali. (2015), **"Geography of India"**, Global Academic Publishers, New Delhi.
- Deshpande, C.D (1992), **"India- A Regional Interpretation"**, Northern Book Centre, New Delhi.
- Farmer, B.H. (1983), **"An Introduction to South Asia"**, Methuen, London.
- Gautam A. (2009), **"Advanced Geography of India"**, Sharda Pustak bhawan, Allahabad.
- Gopal Krishan (2017), **"The Vitality of India: A Regional Perspective"**, Rawat Publication, Jaipur.
- Johnson, B.L.C. (1963), **"Development in South Asia"**, Penguin Books, Harmon's worth.

- Johnson, B.L.C. (1980), **"India: Resources and Development"**, Arnord-Hinemann, London.
- Krishnan, M.S. (1982), **"Geology of India and Burma"**, CAS Publishers and Distributors, Delhi.
- Khullar, D.R. (2007), **"India: A Comprehensive Geography"**, Kalyani Publishers, New Delhi.
- Majid, H. (2020), **"Geography of India"**, McGraw Hill Education (India) Private Ltd.
- Mamoria, C. B. and Mishra, J. P. (2021), **"Bharat ka Bhugol"**. Sahitya Bhawan Publication, Agra.
- Nag, P. and Gupta, S. S. (1992), **"Geography of India"**, Concept Publishing Company, New Delhi.
- Sharma, T.C. and Coutinho, O. (2003), **"Economic and Commercial Geography of India"**, Vikas Publishing House Private Ltd. New Delhi.
- Singh, G. (1995), **"A Geography of India"**, Atma Ram & Sons, New Delhi.
- Singh, R.L. (ed.) (1971), **"India: A Regional Geography. National Geographical Society of India"**, Varanasi.
- Spate, O.H.K. and A.T.A. learmonth (1967), **"Geography of India and Pakistan"**, Methuen London (first Indian Edition, 1984, Munshiram Manoharlal, New Delhi).
- Spate, O.H.K., Learmonth A.T.A. and Farmer, B. H. (1996), **"India, Pakistan and Sri Lanka"**, Methuen, London, 7th edition.
- SukhwaI, B.L. (1987), **"India: Economic Resource Base and Contemporary Political Patterns"**, Sterling Publication, New Delhi.
- Tirtha, R. & Gopal Krishan (1992), **"Emerging India"**, Conpub and Arbour Publishers, Michigan.
- Tirtha, R. (2004), **"Geography of India"**, Rawat Publications, Jaipur
- Tiwari, R.C. (2007), **"Geography of India"**, Prayag Pustak Bhawan, Allahabad.
- Wadia, D. N. (1959), **"Geology of India"**, Mac-Millan & Company, London and student edition, Madras.

Semester-I

Geography of Environment

Course Code: **CC-A2 (Theory: Core Paper)**

Course Id: **240/GEO/CC102**

Programme/Class: B.A. Year: 1 Semester: I Credit: 04 (3+1+0) L+T+P Hrs/Week	Total Marks:	100
Examination Time: 3 Hours	End Semester Exam:	70 Marks
Course Outcome:- 1. Gain knowledge about concept, scope of environmental geography and components of environment. 2. Develop an idea about major ecosystem and human-environment relationships. 3. Build an idea about ecosystem and biodiversity. 4. Know about environmental pollution, programmes and policies.	Internal Assessment: Attendance Assignment Sessional Exam	30 Marks 5 5 20
Instructions for Paper-Setter:- Question 1 is compulsory comprising seven sub-parts spread over the entire syllabus (two marks for each sub-part), to be answered in 15-20 words. There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.		

UNIT –I

Ecology, ecosystem, structure and function of ecosystem, Energy flow in an ecosystem, ecotone, food chain, food web and ecological succession, Major ecosystems: Desert ecosystem, Forest ecosystem, Grassland ecosystem, Aquatic ecosystem.

UNIT -II

Biogeography zones of India; biodiversity patterns and global biodiversity hot spots. Threats to biodiversity: habitat loss, poaching of wildlife, in-situ and ex-situ conservation of biodiversity.

UNIT -III

Ecosystem and biodiversity services: ecological, economic, social, ethical, aesthetic and informational value, biome, classification of biome.

UNIT –IV

Environmental pollution, types, causes, effects and controls; Air, water, soil, chemical and noise pollution. Climate change, global warming, ozone layer depletion, acid rain, Impacts on human communities and agriculture. Concept of sustainable development.

Project Work: Visit to an area to document environmental assets; river/forest/flora/fauna, etc. Visit to a local polluted site – urban/rural/industrial/agricultural. Study of simple ecosystems- pond, river, Delhi ridge etc.

Suggested Reading:

- Agarwal KC (2001), **"Environmental Biology"**, Nidi Publishers Ltd. Bikaner.
- Anderson J.M. (1981), **"Ecology for Environmental Science: Biosphere, Ecosystems and Man"**, Arnold, London.

- BharuchaErach (2003), **"The Biodiversity of India"**, Map in Publishing Pvt. Ltd, Ahmedabad, India.
- Brunner RC (1989), **"Hazardous Waste Incineration"**, McGraw Hill Inc.
- Cunningham WP, Cooper TH, Gorhani E & Hepworth MT (2001), **"Environmental Encyclopedia"**, Jaico Publishing House, Mumbai.
- Gleick HP (1993), **"Water in Crisis"**, Pacific Institute for Studies in Development, Environment and Security, Stockholm Environmental Institute, Oxford University Press.
- Goudie, Andrew (1984), "**The Nature of the Environment"**, Oxford Katerpring Co. Ltd.
- Heywood VH and Watson RT (1995), **"Global Biodiversity Assessment"**, Cambridge University Press.
- Jadhav H and Bhosale VM (1995), **"Environmental Protection and Laws"**, Himalaya Publishing House, Delhi.
- Nobel and Wright (1996), **"Environmental Science"**, Prentice Hall, New York.
- Odum, E.P. (1971), **"Fundamental of Ecology"**, W.B. Sanders, Philadelphia.
- Saxena, H.M. (1994), **"Prayavaranevn Paristhitiki Bhugool (Geography of Environment and Ecology)"**, Rajasthan Hindi Granth Academy, Jaipur.
- Singh, Savindra (1991), **"Environmental Geography"**, Prayag Pustak Bhawan, Allahabad.
- Singh, R.B. (ed.) (1989), **"Environmental Geography"**, Heritage, New Delhi.
- Strahler, A.N. and Strahler, A.H. (1973), **"Environmental Geosciences: Interaction between natural systems and Man"**, John Wiley and Sons, New York.
- Strahler, A.H. and Strahler A.N. (1977), **"Geography and Mans Environment"**, John Wiley, New York.
- William, M.M. and John, G. (1996), **"Environmental Geography - Science, Landuse and Earth System"**, John Wiley and Sons, New York.

Semester-I

General Cartography

Course Code: **CC-A3 (Practical: Core Paper)**

Course Id: **240/GEO/CC103**

Programme/Class: B.A. Year: 1 Semester: I Credit: 04 (0+0+8) L+T+P Hrs/Week	Total Marks:	100
Examination Time: 4 Hours	**End Semester Pract.** Pract. written Exam: Viva-voce	**70 Marks** 50 Marks 20 Marks
Course Outcome:- 1. Develop an idea about scale and draw different types of scale like linear and diagonal. 2. Understand and prepare different kinds of maps. 3. Recognize basic themes of map making. 4. Acquire knowledge different types of diagram.	**Internal Assessment:** Attendance Pract. Assign./Pract. File/record	**30 Marks** 5 25
Note & Instructions for Paper-Setter:- At least **thirty exercises** are to be prepared covering all the topics. The question paper will be set from the content of entire syllabus. A board of two external examiners shall conduct the Practical Examination. The answer copies of the students will be checked by external and internal examiners on the day of examination. In the end semester practical examination, **Part-I the lab test** will consist of 5 MCQ type questions carrying 2 marks each (5question x 2 marks= 10 marks). **Part-II** the lab test shall comprise of eight questions in all with at least two questions from each unit (4 question x 10 marks= 40 marks.		

UNIT –I

Basic Concepts of Cartography: Meaning, nature and subject matter of Cartography; Calculation of R.F. from arcs of meridians and parallels, Map: Definition, Significance, Classification, Usefulness and Principles of Map Design.

Map Scales:-

(i) Methods of expressing a scale
(ii) Conversion of Statement of Scale into R.F. and R.F. to statement of scale.
(iii) Plain Scale (Km and mile)
(iv) Comparative Scale
(v) Diagonal Scale

UNIT -II

Measurement of distances and areas on Maps; enlargement and reduction of Maps; Latitude and Longitude; Global Time: Indian standard time, World time-zones, International date-line. Representation of population distribution by Uniform and Multiple Dots., Representation of urban Population by spheres, proportional circles, cubes and Pyramid diagram.

Suggested Reading:

- Anson R. and Ormelling F. J. (1994), **"International Cartographic Association: Basic Cartographic"**, Vol. Pregmen Press.
- D.R. Khullar (2022), **"Practical Geography"**, Kalyani Publisher, New Delhi.
- D.R. Khullar (2024), **"Physical Geography and Practical Geography"**, Kalyani Publisher, New Delhi.
- Gupta K.K. and Tyagi, V. C. (1992), **"Working with Map, Survey of India"**, DST, New Delhi.
- Mishra R.P. and Ramesh, A. (1989), **"Fundamentals of Cartography"**, Concept, New Delhi.
- Monkhouse, F. J. and Wilkinson, F.J. (1985), **"Maps and Diagrams"**, Methuen, London.

- Raisz, E. (1962), **"General Cartography"**, John Wiley and Sons, New York. 5th edition.
- Rhind D. W. and Taylor D. R. F., (eds.) (1989), **"Cartography: Past, Present and Future"**, Elsevier, International Cartographic Association.
- Robinson A. H. (2009), **"Elements of Cartography"**, John Wiley and Sons, New York.
- Sarkar, A. (2015), **"Practical geography: A systematic approach"**, Orient Black Swan Private Ltd., New Delhi.
- Singh R L & Rana P B Singh (1991), **"Prayogtmak Bhugol ke Mool Tatva"**, Kalyani Publishers, New Delhi.
- Singh, R.L. and Singh, Rana P.B. (1993), **"Elements of Practical Geography"**, (Hindi and English editions). Kalyani Publishers, New Delhi.
- Singh R. L. and Singh R. P. B. (1999), **"Elements of Practical Geography"**, Kalyani Publishers.
- Singh, R.L. (2006), **"Fundamentals of Practical Geography"**, Sharda Pustak Bhawan, Allahabad.
- Sharma J. P. (2010), **"Prayogic Bhugol"**, Rastogi Publishers, Meerut.
- Singh, R L & Dutta, P K (2012), **"Prayogatmak Bhugol"**, Central Book Depot, Allahabad.

Semester-II

Geomorphology

Course Code: **CC-A4 (Theory: Core Paper)**
Course Id: **240/GEO/CC201**

Programme/Class: B.A. Year: 1 Semester: II Credit: 04 (3+1+0) L+T+P Hrs/Week	Total Marks:	100
Examination Time: 3 Hours	End Semester Exam:	70 Marks
Course Outcome:- 1. Understand the theories and fundamental concepts of Geomorphology. Understand earth's tectonic and structural evolution. Gain knowledge about earth's interior. Develop an idea about concept of plate tectonics, and resultant landforms. 2. Acquire knowledge about types of folds and faults and earthquakes, volcanoes and associated landforms. 3. Understanding crustal mobility and tectonics; with special emphasis on their role in landform development. 4. Overview and critical appraisal of landform development models.	Internal Assessment: Attendance Assignment Sessional Exam	30 Marks 5 5 20
Instructions for Paper-Setter:- Question 1 is compulsory comprising seven sub-parts spread over the entire syllabus (two marks for each sub-part), to be answered in 15-20 words. There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.		

UNIT –I

Origin of the Earth, Geological Time Scale, Internal structure of the earth, Moho's hardness scale, Theory of Isostasy, Continental Drift Theory, Plate Tectonic Theory, Sea-Floor Spreading.

UNIT -II

Earth movements, Major Landforms (Mountains, Plateaus, Plains), Earthquakes and Volcanoes--Origin, Types, Distribution, Structure and Landforms— Folded and Faulted.

UNIT -III

Weathering (Mechanical, Chemical, Organic), Mass Movement Erosion (Cycle of Erosion-Penck-Davis, Rejuvenation) ; Fluvial Actions, Overland Flow Landforms made by Rivers, Wind Erosion, Landforms made caused by Aeolian Actions, Glacier, Classification of Glaciers, Landforms caused by Glacial Actions.

UNIT –IV

Time and Space in Geomorphology, Concept of Equilibrium and Threshold, Systems and feedback in Geomorphology, Cyclic and non-cyclic approaches in Geomorphology.

Suggested Reading:

- Bloom, A.L. (1992), **"Geomorphology"**, Second Edition, Prentice Hall of India, New Delhi.
- Dayal, P. (1990), "**A Text Book of Geomorphology"**, Shukla Book Depot, Patna.
- Husain Majid (2002), "**Fundamentals of Physica**l **Geography"**, Second Edition, Rawat Publications, Jaipur and New Delhi.
- Huggett, Richard John (2016), **"Fundamentals of Geomorphology"** 4th Edition, Taylor & Francis, UK.
- Singh, Savindra (1993), "**Physical Geography",** Prayag Pustak Bhawan, Allahabad.
- Singh Savindra (1998), "**Geomorphology",** Pravalika Publication, Allahabad.
- Sharma, H. S. (eds) (1980), **"Perspective in Geomorphology"** Concept, New Delhi.
- Skinner, B. J. & Potter, S. C. (1995), **"The Dynamic Earth"**, John Wiley, New York.
- Sparks, B. W. (1960), **"Geomorphology"**, Longman, London.
- Strahler, A .N. (1988), "**Earth Sciences"**, Harper and Row Publishers, N.D.
- Strahler, A.N. and Strahler, A.H. (1996), "**Introducing Physical Geography"**, John Willey and Sons, New York.
- Thornbury, W.D. (1991), "**Principles of Geomorphology"**, John Wiley, New Delhi.
- Wooldridge, S. W and Morgan, R.S. (1991), "**An Outline of Geomorphology"**, Orient Longmans, Calcutta.

Semester-II
Fundamental of Human Geography

Course Code: **CC-A5 (Theory: Core Paper)**
Course Id: **240/GEO/CC202**

Programme/Class: B.A. Year: 1 Semester: II Credit: 04 (3+1+0) L+T+P Hrs/Week	Total Marks:	100
Examination Time: 3 Hours	End Semester Exam:	70 Marks
Course Outcome:- 1. Gain knowledge about major themes of human Geography. 2. Acquire knowledge on the history and evolution of humans. 3. Understand the approaches and processes of Human Geography as well as the diverse patterns of habitat and adaptations. 4. Develop an idea about nation and state.	Internal Assessment: Attendance Assignment Sessional Exam	30 Marks 5 5 20
Instructions for Paper-Setter:- Question 1 is compulsory comprising seven sub-parts spread over the entire syllabus (two marks for each sub-part), to be answered in 15-20 words. There will be eight long questions, two from each unit. The candidate has to answer four long questions, at least one question from each unit. All questions carry equal marks.		

UNIT –I

· Concept and Nature, Meaning and Scope of Human Geography, Development of Human Geography; major contributors. Man and Environment relationship - Determinism, Possibilism, and Neo-determinism.

UNIT -II

Types of Economic Activities: Primary, Secondary and Tertiary; Location of economic activities: Agricultural location Theory by Von Thunen, Industrial Location, and Theory of Alfred Weber.

UNIT -III

Distribution and Characteristics of Race, Religion and Language; Distribution of indigenous people and major tribes throughout the World and in India.

UNIT –IV

Concept of Nation and State, Attributes of State- Frontiers, Boundaries, Shape, Size, Territory and Sovereignty.

Suggested Reading:

- Chisholm, M. (2nd Ed 1985), **"Human Geography"**, Penguin Books, London.
- De Blij, H.J. (1996), **"Human Geography: Culture, Society and Space"**, 2nd edition. John Wiley and Sons, New York.
- Haggett, P. (2004), **"Geography: A Modern Synthesis"**, 8th edition, Harper and Row, New York.
- Husain, M. (in English & Hindi 1994), **"Human Geography"**, Rawat Publications, Jaipur.
- Husain, Majid husain 6th edition(6 September 2021) Human geography
- Publication: Rawat Publication
- Kaushik, S.D. and Sharma, A.K. (1996), **"Principles of Human Geography"** (in Hindi), Rastogi Publication, Meerut.

- Michael, C.M. (1997), **"Process and Change in Human Geography"**, Nelson, London.
- Norton, W. (2008), **"Human Geography"**, Oxford University Press, New York. 5th ed.
- Singh, R. L. (2005), **"Fundamentals of Human Geography"**, Sharda Pustak Bhawan, Allahabad.
- Stoddard, R.H., Wishart, D.J. and Blouet, B.W. (1986), **"Human Geography"**, Prentice-Hall, Englewood Cliffs, New Jersey.

Semester-II

Representation of Physical Features

Course Code: **CC-A6 (Practical: Core Paper)**

Course Id: **240/GEO/CC203**

Programme/Class: B.A. Year: 1 Semester: II Credit: 04 (0+0+8) L+T+P Hrs/Week	Total Marks:	100
Examination Time: 4 Hours	**End Semester Pract.** Pract. written Exam: Viva-voce	**70 Marks** 50 Marks 20 Marks
Course Outcome:- 1. Will be able to represent the topographical maps. 2. Will be able to represent relief features through superimposed / composite / serial or projected profiles. 3. Will become able to express components of weather map. 4. Will be able to draw height diagrams, hypsometric curve etc.	**Internal Assessment:** Attendance Pract. Assign./Pract. File/record	**30 Marks** 5 25
Note & Instructions for Paper-Setter:- At least **thirty exercises** are to be prepared covering all the topics. The question paper will be set from the content of entire syllabus. A board of two external examiners shall conduct the Practical Examination. The answer copies of the students will be checked by external and internal examiners on the day of examination. In the end semester practical examination, **Part-I the lab test** will consist of 5 MCQ type questions carrying 2 marks each (5question x 2 marks= 10 marks). **Part-II** the lab test shall comprise of eight questions in all with at least two questions from each unit (4 question x 10 marks= 40 marks.		

UNIT –I

Topographical Maps; Conventional Signs and Symbols Interpretation of topographical maps: physical landscape and cultural landscape characteristics and components of Weather Map. Interpretation of Indian Daily Weather Map of India: Pre-monsoon, monsoon and Post-monsoon.

UNIT -II

Intervisibility: determination methods; Interpolation of Contours. Profiles: types of profiles, drawing of profils and cross sections; representation of relief – methods. Representation of different landforms with the help of profiles and cross sections; area: height diagrams, hypsometric curve and altimetric frequency histogram.

Suggested Reading:

- Anson R. and Ormelling F. J. (1994), **"International Cartographic Association: Basic Cartographic"**, Vol. Pregmen Press.
- D.R. Khullar (2022), **"Practical Geography"**, Kalyani Publisher, New Delhi.
- D.R. Khullar (2024), **"Physical Geography and Practical Geography"**, Kalyani Publisher, New Delhi.
- Gupta K.K. and Tyagi, V. C. (1992), **"Working with Map, Survey of India"**, DST, New Delhi.
- Mishra R.P. and Ramesh, A. (1989), **"Fundamentals of Cartography"**, Concept, New Delhi.
- Monkhouse, F. J. and Wilkinson, F.J. (1985), **"Maps and Diagrams"**, Methuen, London.
- Raisz, E. (1962), **"General Cartography"**, John Wiley and Sons, New York. 5th edition.
- Rhind D. W. and Taylor D. R. F., (eds.) (1989), **"Cartography: Past, Present and Future"**, Elsevier, International Cartographic Association.
- Robinson A. H. (2009), **"Elements of Cartography"**, John Wiley and Sons, New York.
- Sarkar, A. (2015), **"Practical geography: A systematic approach"**, Orient Black Swan Private Ltd., New Delhi.
- Singh R L & Rana P B Singh (1991), **"Prayogtmak Bhugol ke Mool Tatva"**, Kalyani Publishers, New Delhi.
- Singh, R.L. and Singh, Rana P.B. (1993), **"Elements of Practical Geography"**, (Hindi and English editions). Kalyani Publishers, New Delhi.
- Singh R. L. and Singh R. P. B. (1999), **"Elements of Practical Geography"**, Kalyani Publishers.
- Singh, R.L. (2006), **"Fundamentals of Practical Geography"**, Sharda Pustak Bhawan, Allahabad.
- Sharma J. P. (2010), **"Prayogic Bhugol"**, Rastogi Publishers, Meerut.
- Singh, R L & Dutta, P K (2012), **"Prayogatmak Bhugol"**, Central Book Depot, Allahabad.