

**PARISHKAR COLLEGE OF GLOBAL EXCELLENCE
(AUTONOMOUS)**

JAIPUR



**SCHEME OF EXAMINATION, COURSE STRUCTURE & SYLLABUS
AS PER UGC**



CHOICE BASED CREDIT SYSTEM (CBCS)

FOR

BACHELOR OF ARTS (HONOURS)

GEOGRAPHY

CHOICE BASED CREDIT SYSTEM LIST OF PAPERS AND COURSES

B.A (HONOURS) GEOGRAPHY

A) CORE COURSE (14)

- Paper I – Geomorphology
- Paper II – Cartographic techniques (Practical)
- Paper III – Human Geography
- Paper IV – Thematic Cartography (Practical)
- Paper V – Climatology
- Paper VI – Statistical Methods in Geography (Practical)
- Paper VII – Economic Geography
- Paper VIII – Field Work and Research Methodology (Practical)
- Paper IX – Environmental Geography
- Paper X – Regional Planning and Development
- Paper XI – Remote Sensing and GIS (Practical)
- Paper XII – Geography of India
- Paper XIII – Evolution of Geographical Thought
- Paper XIV – Disaster Management based Project Work (Practical)

B) Ability Enhancement (Compulsory) Foundation: Two

1. English Communication
2. Environmental Science (EVS)

C) Skill Enhancement (Compulsory) Foundation:

1. Introductory Computer Skills / GIA- I
2. Mathematical and Computational Thinking / GIA -II
3. Professional and Leadership and Management Skills / GIA - III
4. Industry Exposure / GIA -IV

D) Discipline Specific Elective-4 (DSE): Any Four

1. Population Geography
2. Bio Geography
3. Urban Geography
4. Water Resource Management
5. Political Geography
6. Geography of Rural Development
7. Agricultural Geography
8. Dissertation

E) Generic Elective -4 (Interdisciplinary):

1. Physical Geography
 2. Human Geography
 3. General Cartography
 4. Environmental Geography
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**PROPOSED SCHEME FOR CHOICE BASED CREDIT
SYSTEM IN
B.A. (HONOURS) GEOGRAPHY**

Core (14 Papers)				Elective (4 Papers each)			
Semester	Core (6 Credits)	Core (6 Credits)	Core (6 Credits)	Ability Enhancement (4 Credits)	Skill Enhancement (4 Credits)	Discipline Specific Elective (6 Credits)	Generic Elective (6 Credits)
I	Geomorphology	Cartographic Techniques (Pr.)		English Communication	GIA-I		
II	Human Geography	Thematic Cartography (Pr.)			GIA-II	Population Geography/ Bio Geography	Physical geography
III	Climatology	Statistical Methods in Geography (Pr.)			GIA-III	Urban Geography/ Water resource management	Human geography
IV	Economic Geography	Field Work & Research Methodology (Pr.)	Environmental Geography		GIA-IV		General cartography
V	Regional Planning & Development	Remote Sensing & GIS (Pr.)	Geography of India			Political Geography / Geography of Rural Development	Environmental geography
VI	Evolution of Geographical Thoughts	Disaster Management (Pr.)		EVS		Agricultural Geography/ Dissertation	

* **GIA** – **General Interdisciplinary Awareness**

B.A / B.SC. HONOURS GEOGRAPHY**CREDIT PATTERN**

S. No.	COURSE	CREDIT	TOTAL CREDIT
1.	CORE PAPER	6	$14 \times 6 = 84$
2.	AECC	4	$2 \times 4 = 8$
3.	SECC	4	$4 \times 4 = 16$
4.	DSE	6	$4 \times 6 = 24$
5.	GE	6	$4 \times 6 = 24$
TOTAL			156

1. GEOMORPHOLOGY
CORE PAPER -I
CREDIT - 6
Semester -I

Course Objectives:

- To Understand the Associations between Geomorphologic Landforms, Concepts and Processes.
- To Critically Evaluate and Connect Information About Geomorphic Processes.
- To Provide a Theoretical and Empirical Framework for Understanding Landscape Evolution and the Characteristics of Individual Types of Geomorphic Landscapes.

Learning Outcomes:

After the completion of course, the students will have ability to:

- Understand the functioning of Earth systems in real time and analyses how the natural and anthropogenic operating factors affects the development of landforms
- Distinguish between the mechanisms that control these processes and develop the skills to understand this subject.
- Assess the roles of structure, stage and time in shaping the landforms, interpret geomorphological maps and apply the knowledge in geographical research.

Unit -I

Nature, Scope And Approaches Of Geomorphology. Recent Trends In Geomorphological Studies. Geological Time Scale. Interior Structure Of Earth. Origin Of Continents And Oceans. Continental Drift Theory- Wegner And Plate Tectonics.

Unit- II

Earth Movements-Epeirogenic And Orogenic. Types Of Folds And Faults. Mountain Building theories - Kober Earthquakes And Volcanoes.

Unit -III

Geomorphic Process – Endogenetic & Exogenetic Process. Process of Denudation , Weathering Process – Physical, Chemical And Biological. Erosion & Deposition, Cycle Of Erosion- Davis And Penck. Evolution Of Landforms- Fluvial, Aeolian, Glacial And Coastal.

Reading List

- Bloom A. L., 2003: *Geomorphology: A Systematic Analysis of Late Cenozoic Landforms*, Prentice-Hall of India, New Delhi.
- Bridges E.M., 1990: *World Geomorphology*, Cambridge University Press, Cambridge.
- Christopherson, Robert W., (2011), *Geosystems: An Introduction to Physical Geography*, 8 Ed., Macmillan Publishing Company.
- Kale V. S. and Gupta A., 2001: *Introduction to Geomorphology*, Orient Longman. Hyderabad.
- Knighton A.D., 1984: *Fluvial Forms and Processes*, Edward Arnold Publishers, London.
- Richards K.S., 1982: *Rivers: Form and Processes in Alluvial Channels*, Methuen, London.
- Selly, M.J., (2005), *Earth's Changing Surface*, Indian Edition, OUP.
- Skinner, Brian J. and Stephen C. Porter (2000), *The Dynamic Earth: An Introduction to physical Geology*, 4th Edition, John Wiley and Sons.
- Thornburg W.D., 1968: *Principles of Geomorphology*, Wiley.
- Gautam, A (2010); *Bhautik Bhugol*, Rastogi Publications, Meerut.
- Tikkaa, R N (1989): *Bhautik Bhugol ka Swaroop*, Kedarnath Ram Nath, Meerut.
- Singh, S (2009) :*Bhautik Bhugol ka Swaroop*, Prayag Pustak Allahabad.
- Chorley, R. J., Schumm, S. A. and Sugden D.E.(1984): *Geomorphology*. Methuen, London
- Dayal, P. (1994): *A text book of Geomorphology*, Kalyani Publishers, New Delhi.
- Holmes, A. (1987): *Principles of Physical Geology*. Nelson, New York, 3rd edition.
- Sparks, B.W. (1969) : *Geomorphology*. Longman, London.
- Stoddard, D. R. (ed.)(1996): *Process and Form in Geomorphology*. Routledge, London.
- Sharma, P. R. and Mishra, S.P. (eds.), (1993): *Applied Geomorphology in Tropics*. Rishi Publications, Varanasi.
- triwartha, *Geomorphology*.

CARTOGRAPHIC TECHNIQUES (PRACTICAL)

CORE PAPER-II

CREDIT - 6

Semester-I

COURSE OBJECTIVES:

1. Create professional and aesthetically pleasing maps through thoughtful application of cartographic conventions;
2. Develop an understanding of the concepts regarding scale, map projections to suit map purposes;
3. Better understand the techniques of interpretation of topographical and weather maps

LEARNING OUTCOMES :

After the completion of course, the students will have ability to:

1. Read and prepare maps
2. Comprehend locational and spatial aspects of the earth surface.
3. Use and importance of maps for regional development and decision making

UNIT – I:

Cartography: Nature And Scope
Scales – Concept And Application;
Graphical Construction Of Plain,
Comparative And Diagonal Scales
Scale Enlargement And Reduction (Computation)

UNIT – II:

Map Projections- Classification, Properties And Uses;
Graphical Construction Of Polar Zenithal ,
Stereographical, Bonne's And Mercator's
Projection
Reference To Universal Transverse Mercator
(UTM)Projection

UNIT – III:

Topographical Map –

Interpretation of a Mountain area with the help of Cross and Longitudinal Profiles.

Slope Analysis – Wentworth's method.

Practical Record: A Project File in pencil, comprising one exercise each, on scale, map projection, interpretation of topographic sheet and slope analysis.

Reading List

- Anson R. and Ormelling F.J., 1994. International Cartographic Association: Basic Cartographic Vol. Pregmen Press.
- 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 Wilkison H.R., 1973 : Maps and Diagrams, Methuen, London.
- 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.
- Sharma J.P., 2010: Prayogic Bhugol, Rastogi Publishers, Meerut.
- Singh R.L. and Singh R.P.B., 1999: Elements of Practical Geography, Kalyani Publishers.
- 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.
- Sharma, J P (2010) Prayogtmak Bhugol Ki Rooprekha, Rastogi Publications, Meerut.

3. HUMAN GEOGRAPHY

CORE PAPER-III

CREDIT -6

Semester-II

Course Objectives:

1. Various dimensions of human geography and cultural landscape
2. Detailed analysis of population growth and distribution.
3. Understanding of the relationship between population and resource.

Learning Outcomes:

1. Detailed exposure of contemporary relevance of cultural landscape.
2. In-depth knowledge of space and society of cultural regions.
3. Understanding the settlement pattern and population resource related ISSUES.

UNIT-1

Introduction – Defining Human Geography ,
Major Concept Of Place, Region And People,
Contemporary Relevance,
Space and Society: Cultural Regions; Religion and Language

UNIT-2

Population- Growth And Distribution
Population Composition (Age, Sex Ratio, MMR, IMR)
Theories- Malthus, Demographic Transitional Theory & Demographic
Dividend Theory
Races- Distribution & Characteristics
Tribes- Eskimo, Bushman, Masai, Santhal, Bheel, Gond.

UNIT-3

Settlements – Rural & Urban settlements; Classification of settlements ,
Patterns & Trends of Rural and Urban settlement ,
Trends and patterns of world urbanization,
Population- resource relationship.

Reading List:

- Chandna, R.C., (2010) Population Geography, Kalyani Publisher.
- Hassan, M.I. (2005) Population Geography, Rawat Publications, Jaipur
- Daniel, P.A. and Hopkinson, M.F. (1989) The Geography of Settlement, Oliver & Boyd, London.
- Johnston R; Gregory D. Pratt G. et al. (2008) the Dictionary of Human Geography, Blackwell Publication.
- Jordan-Bychkov et al. (2006) the Human Mosaic: A Thematic Introduction of Cultural Geography. W.H. Freeman and Company, new York.
- Kaushik, S.D. (2010) Manav Bhugol, Rastogi Publication, Meerut.
- Maurya, S.D. (2012) Manav Bhugol, Sharda Pustak Bhawan, Allahabad.
- Hussain, Majid (2012) Manav Bhugol. Rawat Publications, Jaipur
- मानव भूगोल – राव एवं श्रीवास्तव, वसुन्धरा प्रकाशन, गोरखपुर
- मानव भूगोल – डी. आर. खुल्लर, कल्याणी पब्लिशर्स, लुधियाना
- Chisholm, M. (1985): Human Geography, 2nd edition, Penguin Books, London.
- de Blij, H.J.(1996): Human Geography: Culture, Society and Space,. 2nd edition. John Wiley and Sons, New York,
- Fellman, J. D., Arthur, G., Judith, G., Hopkins, J. and Dan, S. (2007): Human Geography: Landscapes of Human Activities. McGraw-Hill, New York. 10th edition.
- Haggett, P. (2004): Geography: A Modern Synthesis. 8th edition, Harper and Row, New York.
- Johnston, R. J., Gregory, D., Pratt, G. and Watts, M. (2009): The Dictionary of Human
- Geography. 5th edition, Basil Blackwell Publishers, Oxford.
- Norton, W. (2008): Human Geography, Oxford University Press, New York. 5th ed.
- Singh, K. N. and Singh, J. (2001): Manav Bhugol. Gyanodaya Prakashan, Gorakhpur.2nd edition.
- Singh, L.R. (2005): Fundamentals of Human Geography, Sharda Pustak Bhawan, Allahabad
- Smith, D. M.(1977): Human Geography- A Welfare Approach, Edward Arnold (Publishers) Ltd., London
- Stoddard, R.H., Wishart, D.J. and Blouet, B.W. (1986): Human Geography. PrenticeHall, Englewood Cliffs, New Jersey.

4. THEMATIC CARTOGRAPHY (PRACTICAL)
CORE PAPER – IV
CREDIT - 6
Semester - II

Course Objectives:

1. Create thematic maps through thoughtful application of Cartographic conventions;
2. Enhance understanding of the concepts regarding thematic mapping techniques
3. Better understand preparation and interpretation of thematic maps

Learning Outcome:

This is a practical, hands-on course; when you have completed it, you will be able to

1. Explain how maps work, conceptually and technically and will be able to understand Art and art of cartography
2. Recognize the benefits and limitations of Diagrammatic Data Presentation.
3. Understand and perform interpretation of thematic maps.

COURSE CONTENT:

- Maps – Classification and Types; Principles of Map Design.
- Diagrammatic Data Presentation – Line, Bar and Circle (Computation).
- Thematic Mapping Techniques – Properties, Uses and Limitations;
- Data – Choropleth, Dot, Proportional Circles; Point Data – Isopleths.
- Cartographic Overlays – Point, Line and Areal Data with use of Computer Software.
- Thematic Maps – Preparation and Interpretation.

Practical Record : A Thematic Atlas should be prepared on a specific theme with five plates of any state in India.

Reading List :

- Cuff J.D. and Mattson M.T., 1982: Thematic Maps: Their Design and Production, Methuen Young Books.
- Dent B.D., Torguson J.S., and Holder T.W., 2008: Cartography: Thematic Map Design (6th Edition), Megraw – Hill Higher Education.
- Gupta K.K. and Tyagi V.C., 1992: Working with Maps, Survey of India, DST, new Delhi.
- Kraak M. – J. and Ormeling F., 2003: Cartography: Visualization of Geo-Spatial Data, Prentice – Hall.
- Mishra R.P. and Ramesh A., 1989: Fundamentals of Cartography. Concept, New Delhi.
- Sharma J.P., 2010 : Prayogic Bhugol, Rastogi Publishers, Meerut.
- Singh R.L. and Singh R.P.B., 1999; Elements of Practical Geography, Kalyani Publishers.
- Slocum T.A., McMaster R.B. and Kessler F.C., 2008: Thematic Cartography and Revisualization (3rd Edition), Prentice Hall.
- Tyner J.A., 2010: Principles of Map Design, The Guilford Press.
- Sarkar, A. (2015) Practical Geography: A systematic approach. Orient Black Swan Private Ltd., New Delhi.
- Singh, L.R. & Singh R (1977); Machitra or Prayaogatmek Bhugol, Central Book, Depot, Allahabad.
- Bhopal Singh R L and Dutta P K (2012) Prayogatama Bhugol, Central Book Depot, Allahabad.

ENVIRONMENTAL STUDIES

AECC

CREDIT - 6

Unit - I

- Definition, Scope And Importance Of Environmental Studies
- Classification Of Resources –
 - Renewable & Non- Renewable;
 - Biotic & Aboitic Resources
- Natural Resources & Challenges- Use Over Exploitation Effects & Conservation Methods.
Forest, Land, Water, Mineral, Energy

Unit – II

- Ecosystem – Concept, structure & Function.
- Energy flow in Ecosystem.
- Ecosystem of – Forest, Grassland, Desert & Aquatic.
- Biodiversity its Conservation, Hot Spot of Biodiversity

Unit – III

- Environmental Pollution & Control Measures Air, Water, Noise, Thermal, Solid waste,
- Emerging environmental Problems – Global warming, Climatic change
- Environmental Protection Act.
- Role of Information Technology in Environment & human health.

Reading List →

- Singh S. Environmental Geography, Pravalika Publication, Allahabad, 2016
- Saxena H.M Environmental Geography, Rawat Publication Jaipur, 1999
- नेगी पी एस. पारिस्थितिकीय विकास एवं पर्यावरण भूगोल रस्तोगी एण्ड कम्पनी, मेरठ, 1995
- Saxena H.M Environmental Management, Rawat Publication, Jaipur 2000

GENERAL KNOWLEDGE OF GEOGRAPHY

SECC-I

Geography of Rajasthan:

- Major physiographic regions and their characteristics
- Climatic characteristics
- Major Rivers & Lakes
- Natural Vegetation & Soil
- Major Crops- Wheat, Maize, Barley, Cotton, Sugarcane & Bajra
- Major Industries.
- Major Irrigation Projects & Water Conservation Techniques
- Population-Growth, Density, Literacy, Sex-ratio & Major Tribes
- Minerals- Metallic & Non-Metallic
- Power Resources- Conventional & Non-Conventional
- Biodiversity & its Conservation
- Tourist Centers & Circuits

READING LIST:

- Bhalla,L.R.: Geography of Rajasthan, Kuldeep Publication
- Chauhan,T.S.: Geography of Rajasthan, Jaipur
- Govt. of Rajasthan: Techno-Economic Survey of Rajasthan Govt. of Rajasthan Publication
- Gurjar,R.K.: Indira Gandhi Nehar Kshetra Ka Bhogool, Rajasthan Hindi Granth Academy, Jaipur
- Mishra,V.C.: Geography of Rajasthan
- Saxena H.M., Rajasthan ka Bhugol, Rastogi Publication.

World Geography:

- Major Landforms-Mountains, Plateaus, Plains & Deserts
- Major Rivers & Lakes
- Types of Agriculture
- Major Industrial Regions.
- Environmental Issues- Desertification, Deforestation, Climate Change & Global Warming, Ozone Layer Depletion

READING LIST:

- vishva ka pradeshik bhugol, sharda pustak bhavan , allahbad.
- Alexander, J. W., (1963): Economic Geography, Prentice-Hall Inc., Englewood Cliffs, New Jersey.
- Bagchi-Sen, S. and Smith, H. L., (2006): Economic Geography: Past, Present and Future, Taylor and Francis, London.
- Coe, N. M., Kelly P. F. and Yeung H. W., (2007): Economic Geography: A Contemporary Introduction, Wiley-Blackwell, New Jersey.
- Majid Hussain – World Geography Ed. 2019.

SECC - II

Geography of India:

- Major Landforms- Mountains, Plateaus, Plains
- Mechanism of Monsoon & Rainfall distribution
- Major Rivers & Lakes
- Major Crops- Wheat, Rice, Cotton, Sugarcane, Tea & Coffee
- Major Minerals- Iron ore, Manganese, Bauxite, Mica
- Power Resources- Conventional & Non-Conventional
- Major Industrial Regions.
- National Highways & Major Transport Corridors

READING LIST:

- Tritha, R : Geography of India, Rawat Publication, New Delhi
- Gautam, Alka : Advanced Geography of India, Sharda Publication, Allahabad
- Singh, R.L. : India-A Regional Geography, UBS Publication & Distributors Ltd, New Delhi
- Singh Jagdish : India-A, Comprehensive Systematic Geography, Gayonodaya Prakasan, Gorkhpur,
- सिंह, गोपाल : भारत का भूगोल, आत्माराम एण्ड सन्स, नई दिल्ली
- तिवाड़ी, आर.सी. : भारत का भूगोल, वसुन्धरा प्रकाशन, गोरखपुर
- बंसल, सुरेश चन्द्र : भारत का वृहद् भूगोल, मिनाक्षी प्रकाशन, मेरठ
- हुसैन, माजिद : भारत का भूगोल, टाटा मैग्राहिल्स पब्लिशिंग कम्पनी लि. नई दिल्ली
- मामोरिया, चतुर्भुज : आधुनिक भारत का वृहद् भूगोल, प्रतिय

DSE
Credits -6
Semester – II

POPULATION GEOGRAPHY

Course Objectives:

- This course intends to apprise the students about different perspectives related to population and development nexus.
- Student shall learn about the demographic transition models, its genesis, process and consequences from spatial perspectives.
- Students shall also understand the various population policies and programmes for the sustainable population management.

Learning Outcomes:

On successful completion of the Course the student will be able to-

- Explain the development of demography and elaborate the concept of population.
- Measure and discuss the population dynamics of the world.
- Critically evaluate the population as a resource and population policies.
- Build competency and academic excellence for competition exams.

UNIT-I

- Population – Nature and Scope; Census, Statistics.
- Population Size, Distribution and Growth.
- Population Structure and Characteristics.

UNIT-II

- Population Theories-Malthusian Theory, Demographic Dividend Theory and Demographic Transition Theory.
- Factors Affecting Population Structure.
- Rural- Urban Composition.

UNIT- III

- Population Dynamics: Fertility, Mortality And Migration – Measures, Determinants And Implications.
- Contemporary Issues – Ageing Of Population; Declining Sex Ratio; HIV/AIDS.
- NRC and NPR

Reading List:

- Barrett H. R., 1995: Population Geography, Oliver and Boyd.
- Bhende A. and Kanitkar T., 2000: Principles of Population Studies, Himalaya Publishing House.
- Chandna R. C. and Sidhu M. S., 1980: An Introduction to Population Geography, Kalyani Publishers.
- Clarke J. I., 1965: Population Geography, Pergamon Press, Oxford.
- Jones, H. R., 2000: Population Geography, 3rd ed. Paul Chapman, London.
- Lutz W., Warren C. S. and Scherbov S., 2004: The End of the World Population Growth in the 21st Century, Earthscan
- Newbold K. B., 2009: Population Geography: Tools and Issues, Rowman and Littlefield Publishers.
- Pacione M., 1986: Population Geography: Progress and Prospect, Taylor and Francis.
- Wilson M. G. A., 1968: Population Geography, Nelson.
- Panda B P (1988): Janasankya Bhugol, M P Hindi Granth Academy, Bhopal
- Maurya S D (2009) Jansankya Bhugol, Sharda Putak Bhawan, Allahabad
- Chandna, R C (2006), Jansankhya Bhugol, Kalyani Publishers, Delhi

DSE
Credit- 6
Semester – II
AGRICULTURAL GEOGRAPHY

Course Objectives:

- To understand the concept of land use/land cover classification and determinants of agriculture.
- To familiarize the students with agriculture regions of India and various types of agriculture system in India.
- To analyse the food security along with various agricultural revolutions and government policies in India.

Learning Outcome:

- After studying, students will be able to:
- Conceptualize the agriculture and its determinants.
- Get the overview of Indian and World agriculture regions and systems.
- Have sound knowledge of agriculture revolutions.

Unit-I

Agriculture: Definition, Development of Agriculture Land use/Land Cover. Determinants of Agriculture. Physical and Human.

Agriculture Productivity, Agriculture Intensity, Crop Combination, Land Capability.

Unit-II

Major Crops: Production and Distribution of Rice, Wheat, Maize, Soybean, Sugarcane, Cotton, Tea, Coffee, Rubber type of Agriculture World Agriculture Region (Whetelesy).

Agriculture Region of India. Von Thunen's Agriculture Location Theory.

Unit-III

Agriculture and Poultry, Agro – Climate Region of India and Rajasthan. Agriculture Development Policy in India and Rajasthan. Agro-Ecology Regions.

Agriculture Revolution in India Green, Blue, White, Pink.

Reading List:

1. Basu, D.N., and Guha, G.S., 1996: Agro-Climatic Regional Planning in India, Vol. I & II, Concept Publication, New Delhi.
2. Mohammad, N., 1992: New Dimension in Agriculture Geography, Vol. I to VIII, Concept Pub., New Delhi.
3. Shafi, M., 2006: Agricultural Geography, Durgam Kindersley India Pvt. Ltd., New Delhi.
4. Singh, J., and Dhillon S.S., 1984: Agricultural Geography, Tata McGraw Hill, New Delhi.
5. Tarrant J.R., 1973: Agricultural Geography, David and Charles, Devon.
6. Tiwari, R.C., 2021, 'Agriculture Geography, Prevalence Publication, Allahabad, U.P.
7. Sharma, B.L., and Bhardwaj, P. 2021, Agriculture Geography: Principles and Applied, Rastogi Publications, Meerut, U.P.

PHYSICAL GEOGRAPHY

GE-I

Course Objectives:

- This course shall introduce definition and scope of physical geography.
- This paper shall elucidate the characteristics of atmosphere, lithosphere, and the fluvial cycle of erosion.
- This course shall provide detailed understanding related to hydrosphere and its related processes.

Learning Outcomes:

- This paper shall enable the students to understand the basic concepts, definition and scope of physical geography.
- This course shall enable the students to comprehend the dynamics of atmosphere, lithosphere and fluvial erosion cycle.
- Students shall be well-versed with hydrological processes, ocean bottom relief, tides and currents.

Section – A

- Definition, Nature And Scope Of Physical Geography.
- Geological Time Scale.
- Lithosphere - Earth's Interior Structure
- Rocks – Their Origin, Classification, And Characteristics.
- Continental Drift Theory Of Wegner, Plate Tectonics.
- Fluvial - Cycle Of Erosion (Davis & Penck).
- Major Landforms, their classification and distribution.
- Erosional And Depositional Topography -
River, Underground Water, Wind, Glacier And Oceanic Waves.

Section – B

- Atmosphere - Composition And Structure.
- Insolation And Temperature –Heat Budget.
- Moisture In The Atmosphere: Humidity, Evaporation And Condensation, Precipitation.
- Atmospheric Pressure And Pressure Belts And Monsoon.
- Global wind system – planetary, Monsoon and Local winds.
- Atmospheric disturbances: Cyclones: Tropical and Temperate.

Section – C

- Hydrosphere – Basic Introduction
- Bottom Relief Features- Pacific, Atlantic And Indian Ocean.
- Ocean Salinity And Temperature – Vertical and Horizontal Distribution.
- Oceanic Movements – Waves, Currents And Tides.
- Coral Reefs – Types And Theories.

Reading List:

- Andrew – D. Ward and Stanley, Environmental Hydrology. Lewis publishers CRC Press.
- The world oceans – W.A. Anikouchine.
- Oceanography – T. Garrison.
- World Geomorphology – E.M. Bridges.
- Geomorphology – A.L. Bloom
- Bhautik Bhugol Ka Swaroop – S. Singh
- Introduction to Geomorphology – A. Gupta.
- An Introduction to climate – G.T. Trewartha. (McGrow-Hill.)
- Atmosphere, weather and climate – R.G. Barry.
- Environmental Geography – R.C. Chandna.

HUMAN GEOGRAPHY

GE-II

Course Objectives:

- This course shall introduce definition, nature, major subfields and relevance of human geography.
- This paper shall elucidate about space and society, cultural regions, race, religion and language.
- This course shall provide detailed understanding related to world population growth, population theory and settlement patterns.

Learning Outcomes:

- This paper shall enable the students to understand the basic concepts, nature and relevance of human geography.
- This course shall enable the students to appreciate the interrelationships between space and society, characteristics of cultural regions, race, religion and language.
- Students shall be well-versed with the world population growth patterns, demographic transition theory, settlement patterns and urbanization process.

Section – A

- Definition, Nature And Scope Of Human Geography, Contemporary Relevance.
- Space and Society: Cultural Regions and Language.
- Thought In Human Geography: Concepts Of Man And Environment Relationship, Environmental Determinism And Possibilism And Neo-Determinism

Section – B

- Population – Composition, Growth and distribution of population.
- Theories of Population Growth, Demographic transition theory.
- Human Migration.
- Races: Meaning, Concept And Their Distribution In World And India In Particular.
- Human Adaptation to the Environment
- Tribes – Eskimo, Bushmen, Masai, Gond, Santhal, Naga.

Section – C

- Settlement: Size, situation and classification.
- Rural and Urban Settlements – types and patterns.
- Trends of Rural and Urban Settlements.
- Urbanization – Factors Affecting, Trends and Associated Problems.

Reading List:

- Population Geography – R.C. Chandna. Kalyani Publisher.
- Geography of settlement – P.A. Daniel and M.F. Hopkinson (London)
- Manav Bhugol – S.D. Maurya – Sharda Pustak Bhawan, Allahabad.
- Manav Bhugol – Majid Hussain (Rawat Publications, Jaipur)
- Population Geography – K.B. Newbold. (Rowman Publishers)
- Janasanka Bhugol – B.P. Panda (Hindi Granth Academy, Bhopal)
- Human Geography – Majid Hussain.
- Urban Geography – T. Hall (Taylor and Francis)
- The study of Urbanisation – Romachandram. R. Oxford University Press, Delhi.
- Urban development – R.B. Singh.

GENERAL CARTOGRAPHY

GE-III

Course Objectives:

- Create professional and aesthetically pleasing maps through thoughtful application of Cartographic conventions;
- Develop an understanding of the concepts regarding scale, map projections to suit map purposes;
- Better understand the techniques of interpretation of topographical and weather maps

Learning Outcome:

- This is a practical, hands-on course; when you have completed it, you will be able to:
- Explain how maps work, conceptually and technically and will be able to understand Arts and art of cartography
- Recognize the benefits and limitations of some common map projections and their use.
- Understand and perform interpretation of topographical maps and weather maps.

SECTION – A

Cartography:

Definition and Significance of Cartography and Map, Scope of Cartography, Classification of Map, Scales, Coordinate system.

SECTION – B

Map Projections:

Classification, properties and uses: Merits and Demerits of Polar Zenithal, Stereographic Cylindrical, Conical, Bonne's and Mercator's Projection.

Types of Map & Series of Map, Toposheets numbering system and Interpretation of Toposheets and Weather Maps.

SECTION – C

Profiles – Introduction to cross and Longitudinal Profiles.

Topographical maps Interpretation and slope analysis (Wentworth's Method)

Interpretation of Weather Maps.

Various Cartographic Techniques of representing Statistical Data, Digital Cartography.

Reading List

1. Dent B. D., 1999: Cartography: Thematic Map Design, (Vol. 1), McGraw Hill.
2. Gupta K. K and Tyagi V. C., 1992: Working with Maps, Survey of India, DST, New Delhi.
3. Mishra R. P. and Ramesh A., 1989: Fundamentals of Cartography, Concept Publishing.
4. Robinson A., 1953: Elements of Cartography, John Wiley.
5. Sharma J. P., 2010: Prayogic Bhugol, Rastogi Publishers.
6. Singh R. L. and Singh R. P. B., 1999: Elements of Practical Geography, Kalyani Publishers
7. Singh R. L., 1998: Prayogic Bhoogol Rooprekha, Kalyani Publications.
8. Steers J. A., 1965: An Introduction to the Study of Map Projections, University of London.

ENVIRONMENTAL GEOGRAPHY

GE-IV

Course Objectives:

- This course shall introduce the basic concepts and approaches of environmental geography.
- This paper shall elucidate about human-environmental relationship, environmental programs and their management.
- This course shall provide detailed understanding related to environmental programmes and policies with specific reference to New Environmental Policy of India.

Learning Outcomes:

- This paper shall enable the students to understand basic concepts and approaches related to environmental geography.
- This course shall enable the students to comprehend about human-environment relationship, and different environmental problems and its management.
- Students shall be well-versed with the analysing the environmental programmes and policies.

SECTION – A

1. Environment: Definition, meaning and components, Concept and approaches to Environmental geography, Man and Environment Interaction,
2. Humanization of Nature and Naturalization of Human, Environmentalism and Conservation ethics.

SECTION – B

1. Ecosystem – Concept, Structure and Functions.
2. Human Adaptation and Modification, Adaptation Types, Aquatic, Desert and Land adaptation.
3. Nutrient cycles; Carrying Capacity of Earth.

SECTION – C

1. Environmental problems & Management; Biodiversity loss Pollution of Air and water, Solid Waste Management.
2. Environmental programs and policies, New Environmental policy of India; Quaternary climate change, nature-based solutions for climate change.

Reading List:

1. Casper J.K. (2010) Changing Ecosystems: Effects of Global Warming. Infobase Pub. New York.
2. Hudson, T. (2011) Living with Earth: An Introduction to Environmental Geology, PHI Learning Private Limited, New Delhi.
3. Miller, G.T. (2007) Living in the Environment: Principles, Connections, and Solutions, Brooks/ Cole Cengage Learning, Belmont.
4. Singh, R.B. (1993) Environmental Geography, Heritage Publishers, New Delhi.
5. UNEP (2007) Global Environment Outlook: GEO4: Environment For Development, United Nations Environment Programme. University Press, Cambridge.
6. Wright R. T. and Boorse, D. F. (2010) Toward a Sustainable Future, PHI Learning Pvt Ltd, New Delhi.
7. Singh, R.B. and Hietala, R. (Eds.) (2014) Livelihood security in Northwestern Himalaya: Case studies from changing socio-economic environments in Himachal Pradesh, India. Advances in Geographical and Environmental Studies, Springer 8. Singh, Savindra 2001. Paryavaran Bhugol, Prayag Pustak Bhawan, Allahabad. (in Hindi)