

**Paper Code: GPH701C (Core)**

**No. of lectures: 48**

**Paper Title: Geomorphology (4 Credits, L+T+P = 3+0+1)**

<b>Unit</b>	<b>Content</b>	<b>No. of lectures</b>
1	Nature of geomorphology, concepts of steady state, dynamic equilibrium, threshold; systems approach in geomorphology.	10
2	Trends in geomorphological study- quantitative geomorphology, process geomorphology, structural geomorphology, climatic geomorphology and morphogenetic regions, applied geomorphology: palaeo- geomorphology, hydro- geomorphology and environmental geomorphology.	10
3	Slope – elements, classification; theories of slope development – slope decline, slope replacement and parallel retreat	8
4	Agents of landform developments, processes of erosion, transportation and deposition by running water, glacier, wind and sea waves; resultant landforms.	12
5	Drainage types and patterns; concept of drainage basin, long profile and cross profiles of basin.	8
7	<b>Practical-</b>  Longitudinal and cross profiles of drainage basin, longitudinal profile of river, hypsometric curve and hypsometric integral; slope analysis: Wentworth's method; slope measurement using instruments; determination of point attributes- altitude, gradient, aspect, etc. of random points of a basin; frequency distribution of altitude and gradient of a basin.	1 credit

**Reading List:**

- Bloom A.E., 2003: *Geomorphology: A Systematic Analysis of Late Cenozoic Landforms*, Prentice-Hall of India, Englewood Cliffs, N. J.
- Embelton C. Brunsten D. and Jones, DKC (ed)1978 : *Geomorphology, Present Problems and Future Prospects*, Oxford University Press, London
- Embelton, C and Thorns J. 1979: *Process in Geomorphology*, Arnold Heinemann, First Indian Edition, 1982
- Goudie, A.(ed) 1990 : *Geomorphological Techniques*, Routledge, London and New York
- Gregory K. J. and Lewin J. 2014: *The Basics of Geomorphology*, Sage, L. A., London, New Delhi, Singapore, Washington D.C.

- Hart, M. G. 1986: *Geomorphology: Pure and Applied*, Allen and Unwin (Publishers) Ltd. London
- Holmes, A. 1968: *Principles of Physical Geology*, Nelson, London
- Monkhouse, F. J. and Wilkinson H.R. 1973: *Maps and Diagrams*, Methuen, London
- Pitty, A.F. 1982: *The Nature of Geomorphology*, Methuen, London and New York
- Sharma V. K. 1986: *Geomorphology, Earth Surface Processes and Forms*, Tata-McGraw Hill, New Delhi
- Sharma V. K. 2010: *An Introduction to Process Geomorphology*, CRC Press
- Singh, Savindra, 2007: *Geomorphology*, PrayagPustakBhawan, Allahabad
- Steers, J. A. 1958: *The Unstable Earth*, Methuen, London
- Thornburry, W.D., 1968: *Principles of Geomorphology*, Wiley Eastern Reprint 1984
- Waugh, D. 2002: *An Introduction to Physical Geography*, Nelson Thornes, U.K.
- Young, A. 1972: *Slope*, Longman, New York

**Paper Code: GPH702C (Core)**

**Paper Title: Population and Social Geography**

**Total Credits: 4 (L+T+P= 3+1+0)**

**No of lectures: 48**

Unit	Content	No of lectures
1	Defining the field of population geography, conceptual basis of over population, under population, optimum population, population explosion, population pressure; world population region.	8
2	Population growth: trends (global, India), factors and determinants, spatial pattern; population composition: spatial pattern in age-sex, rural-urban, religions, language, literacy and literacy transitions; population dynamics: fertility & mortality, fertility and mortality transitions, migration- theories and laws, types and consequences	10
3	Population – resources relationship, population resource region, global and local food security issues.	8
4	Philosophical and methodological development of social geography, Contemporary trends in social geography, social structure, social process, social plurality  Social segregation & social exclusion	10
5	Gender perspective in social geography, gender discrimination, gender gaps in social and public life, role of education and occupation in bridging gender gap, space and spatial dimensions of gender	12

## Reading List:

- Ahmad, A. (ed), 1993: *Social Structure and Regional Development: A Social*
- Ahmad, A., 1999: *Social Geography*, Rawat Publication, Jaipur and New Delhi.
- Ahmad, A., *et. Al* (eds), 1997: *Demographic Transition: The Third Third-World Scenario*, Rawat Publications, Jaipur and New Delhi.
- Chandna, R. C., 1986: *A Geography of Population*, Kaylani Publishers, New Delhi.
- Clarke, J. I., 1972: *Population Geography*, Pergamon Press, Oxford.
- *Geography perspective*, Rawat Publication, Jaipur.
- Haggett, P., 1972: *Geography: A Modern Synthesis*, Harper & Row, New York.
- Noble, A. G. and Dutta, A. K. (eds): *India: Cultural Pattern and Processes*, West View Press, Colorado.
- Peters, G. L. and Larkin, R. P., 1979: *Population Geography: Problems, Concepts and Prospects*, Kendall/ Hunt Iowa.
- Robinson, H., 1981: *Population and Resources*, Macmillan Press, London.
- Sandram, K. V. and Nangia, S., (eds): *Population Geography*, Heritage Publishers, New Delhi. Inc., New York.
- Srinivas, M.N., 1986: *India: Social Structure*, Hindustan Publishing Corporation, Delhi.
- Taylor, Griffith, 1949: *Urban Geography*, Methuen, London.
- Trewartha, G. T., 1969: *A Geography of Population: World Pattern*, John Wiley & Sons.
- Woods, R., 1979: *Population Analysis in Geography*, Longman, London.
- Zelinsky, W., 1966: *A Prologue to Population Geography*, Prentice-Hall, Englewood Cliffs, New Jersey.

**Paper Code: GPH703C (Core)**

**Paper Title: Geographic Thought**

**Total Credit: 4 (L+T+P= 3+1+0)**

**No of Lectures: 48**

Unit	Content	No. of lectures
1	Evolution of geographic thought; an outline of the chronology of geographical development	6
2	Conceptual structure in geography: spatial distribution, areal association, location, regionalisation and interaction	9
3	Contemporary tradition in human geography: Schaefer-Hartshorne debate; quantitative revolution, behavioural geography	6
4	Humanistic approaches- idealism, phenomenology, existentialism; positivism, pragmatism, functionalism, realism, Marxism and feminism	9
5	Explanation in geography: laws and theories; models and system analysis	8

6	Spatial analysis: history and concept of space and spatial organisation	6
7	Gender geography, post-modern geography	4

**Reading list:**

- Abler, R. A., & Gould, P. P. (1971). *Spatial Organisation: The Geographers View of the World*. Engelwood Cliff: Prentice Hall.
- Adhikari, S. (2001). *Fundamentals of Geographical Thought*. Allahabad: Chaitanya.
- Bunge, W. (1962). *Theoretical Geography, Lund Studies in Geography*. Lund: C.W.K. Glcerup.
- Chorley, R. J., & Hagget, P. (. (1967). *Models in Geography*. London: Methuen.
- Daniels, P. e. (2003). *Human Geography, Issues for the 21st Century*. India: Pearson Education.
- Dickinson, R. E. (1969). *The Makers of Modern Geography*. Ludhiana: Lyall Book Depot.
- Dikshit, R. D. (2003). *Geographical Thought, A Contextual History of Ideas*. New Delhi: Prentice Hall of India.
- Dikshit, R. D. (1994). *The Art and Science of Geography*. New Delhi: Prentice Hall of India.
- Hagget, P. (1967). *Locational Analysis in Human Geography*. London: Butler and Tanner.
- Hartshorne, R. (1959). *Perspective on the Nature of Geography*, Indians edition. Jodhpur: Scientific Publishers.
- Hartshorne, R. (1939). *The Nature of Geography* . Chicago: Rand Mckully.
- Harvey, D. (1969). *Explanation in Geography*. New York: St. Martin Press.
- Johnstone, R. J. *The Dictionary of Human Geography*. Basil, Blackwell: Oxford.
- Verma, J. (2008). *Human Geography*. New Delhi: Gnosis.

**Paper Code: GPH704C (Core)**

**Paper Title: Geography of Development of N.E India**

**Total Credit: 4 (L+T+P=3+0+1)**

**No of Lectures: 48**

Unit	Contents	No. of lectures
1	Location and strategic significance of NE India; physical characteristics and their relation to development: relief, drainage, climate, soil and vegetation and bio-diversity.	12
2	Natural resources, their utilization and development: coal, petroleum, natural gas, water and forests in North East India.	8

3	Population and development: population growth, composition and distribution, migration, population characteristics and their socio-economic implications, level of urbanization and development inequalities.	10
4	Agriculture and development: characteristics and problems of agriculture, agricultural modernization and strategies for future development; constraints of industrial development; problems and prospects of tourism, development in transport and communication system.	10
5	Spatial pattern of socio-economic development and backwardness (state level), and strategies for future development; Socio-economic and trade relation with ASEAN countries.	8
6	<b>Practical:</b>  -Thematic mapping of spatial pattern of population characteristics in North East India(State level) and Assam (District level); determination of level of infrastructural development in North East India using simple composite index; analysis of connectivity and centrality of transport networks in North East India; choropleth mapping of cropping intensity of N.E. India	1 credit

### Reading List:

- Bhagabati, A. K. *et al*, 2001: *Geography of Assam*, Rajesh Publications, New Delhi.
- Bhatt, L. S., 1973: *Regional Planning in India*, Statistical Publishing Society, Calcutta.
- Das, H. P., 1971: *Geography of Assam*, NBT, New Delhi.
- Das, M. M., 1984: *Peasant Agriculture in Assam*, Inter India Publications, New Delhi.
- Dutta Ray, B., et. al (eds), 2000: *Population, Poverty and Environment in North East India*, Concept Publishing Co., New Delhi.
- Dhar, P. K., 1988 (2nd Edition): *The Economy of Assam*, AshomiPrakashani
- Misra, et. al, 1974: *Regional Development Planning in India- A Strategy*, Institute of Development Studies, Mysore.
- Bhattacharyya N.N.2009: *North East India: A systematic Geography*, Rajesh publication,Delhi.
- Taher M. and Ahmed, P., 2000: *Geography of North East India*, Mani-Manik Prakash, Guwahati.
- Taher M. and Ahmed P. 2005: *Assam: A geographical profile*, Mani-Manik Prakash, Guwahati.

**Paper Code: GPH705L (Lab)**

**Paper Title: Cartographic Techniques**

**Total Credit: (L+T+P= 0+0+4)**

**No of practical classes: 60**

<b>Unit</b>	<b>Content</b>	<b>No of practical classes</b>
1	Drawing of complex thematic maps; measurement of area of a part of topographical map / drainage basin using digital planimeter; map enlargement and reduction using pantograph	10
2	Analysis and interpretation of climatic data- isohyet map, variability map, water surplus and deficiency graph, rainfall dispersion graph.	10
3	Analysis and interpretation of topographic Data- Hachuring and Block diagram, Drainage density map, dissection index map,	10
4	Principles of construction of graticules and their properties, uses & limitation- (i) Lambert's conical equal-area projection; (ii) Conical projection with two standard parallels; (iii) Zenithal gnomonic projection (equatorial case) (iv) Mercator's Projection (v) Mollweide's Projection.	15
5	<b>Prismatic compass</b> - open traverse survey; <b>Dumpy level</b> - preparation of contour map of any selected terrain; <b>Auto level</b> - preparation of road profile; <b>Theodolite</b> - determination of height of an inaccessible object, closed traverse survey using independent coordinate method	15

### **Reading List:**

- Clendinning , J., 1960: *Principles of Surveying* 2nd edition.
- Curtis, H., 2000: *The GPS Accuracy Improvement Initiative*, GPS World, June, 2000.
- Gopi, S., 2005: *Global Positioning System Principles and Applications*, Ta McGraw Hill, New Delhi.
- Kanetkar, T. P. and Kulkarni, S. V., 1972: *Surveying and Levelling [Part-I &II]*, VidyarthiGrihaPrakashan, Pune.
- Langley, R. B., 1991: *The GPS Receiver – An Introduction*, GPS World, 2(1). Operation Manual of Placom Digital Planimeter.
- Sandover, J. A., 1961: *Plane Surveying*, Arnold.
- Saha, P. K. and Basu, P., 2010: *Advanced Geography Practical – A Laboratory Manual*, Books and Allied (P) Ltd., Kolkata.