

## U.G. 2<sup>nd</sup> Semester

### Paper: GPH201C (Core) Geography of Population and Settlements

Credits: 5 = 3+1+1 (48 Lectures)

Unit	Content	No. of lectures
1	Defining the field of population geography, nature and scope.	4
2	Population size, distribution and growth, theories of growth, Malthusian Theory and Demographic Transition Theory.	10
3	Population dynamics: fertility, mortality and migration - measures, determinants and implications	10
4	Defining the field of settlement geography, site and situation, factors determining settlement, rural and urban areas, tribal settlements of north-east India	10
5	Origin and growth of rural and urban settlements, factors influencing village sites, characteristics of rural settlement, morphology and characteristics of urban settlement, hamlet and village, town, city, metropolis, megalopolis, conurbation, rural-urban fringe. rural urban dichotomy, central place theory of Walter Christaller.	14
6	<b>Practical:</b> (1 credit) Age-sex pyramid, mean centre of population, mean centre of settlement, median centre of population, frequency polygon, and histogram. house types of North East India, population distribution of India/N.E India by multiple dot method and sphere method	

#### 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., 1990: **Population Geography**, Sage.
- Jones, H. R., 2000: **Population Geography**, 3 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.
- Peters G. L. and Larkin R. P., 1979: **Population Geography – Problems, Concepts and Prospects**, Kendall Hunt Publication Co.
- Chishlom M., 2007: **Rural Settlement and Land Use**, Transaction Publishers.
- Daniel, P. 2002: **Geography of Settlement**, RawatPubls., Jaipur & New Delhi.

- Ghosh, Santwana 1999: *A Geography of Settlements*, Orient Longman, Kolkata.
- Kalia Ravi, 1999: *Chandigarh: The Making of Indian City*, Oxford University Press.
- Kaplan D. H., Wheeler J. O. and Holloway S. R., 2008: *Urban Geography*, John Wiley.
- Krishan G., 1999: *Inner Spaces – Outer Spaces of a Planned City: A Thematic Atlas of Chandigarh*, Celebrating Chandigarh.
- Ramachandran R., 1989: *Urbanisation and Urban Systems of India*, Oxford University Press.
- Ramachandran, R., 1992: *The Study of Urbanisation*, Oxford University Press, Delhi.
- Singh R. Y., 1994: *The Geography of Settlement*, Rawat Publication, New Delhi.
- Misra, R. P. & Misra, K. eds. 1998: *Million Cities of India*, Sustainable Development Foundation, New Delhi.

**Paper: GPH202C (Core)**  
**Cartographic Techniques**  
**Credits: 5=3+0+2 (48 Lectures)**

Unit	Content	No. of lectures
1	Definition, nature, scope and development of cartography, earth: shape, concept of geoid and ellipsoid, size, reference system- geocentric and geodetic co-ordinates, direction of coordinate & their function- concept of magnetic, true and grid north.	10
2	Map scale, classification of map scale, conversion of scale	6
3	Map: classification and significance of map, thematic map & their classification, introduction of topographical map, map design and layout principle, map generalization, cartogram, map production	10
4	Map projection-concept and classification, characteristics of map projection, choice of projection, recent trend in projections	10
5	Surveying: definition, principles and types of surveying, principles and application of land surveying by plane table and prismatic compass	12
6	<p><b>Practical:</b> (2 credits)</p> <p>Construction of scale: linear, comparative, vernier scale; measurement of distance and bearing between any two given places/points on maps, computation of area in desired units using graphical method, interpretation of topographical maps in terms of physical and cultural features</p> <p>principles of construction, properties and uses of</p> <p>i. Polar zenithal gnomonic,  ii. Polar zenithal equal area projection,  iii. Simple cylindrical projection,  iv. Gall's projection,  v. Conical one standard parallel projection,  vi. Bonne's projection (6)</p> <p><b>Surveying:</b></p> <p>Plane table survey using radiation method,  Closed traverse survey by prismatic compass, (2 exercise)</p>	

**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.
- Loxton J., 1980: *Practical Map Production*, John Wiley.
- Mishra R.P. and Ramesh, A., 1989: *Fundamentals of Cartography*, Concept, New Delhi.
- Monkhouse F. J. and Wilkinson 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: *Prayogik Bhugol*, Rastogi Publishers, Meerut. 2014 June v1.0 (a) Page 6 of 32
- Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers.
- Tyner J. A., 2010: *Principles of Map Design*, The Guilford Press.
- Mishra R. P. and Ramesh A., 1989: *Fundamentals of Cartography*, Concept, New Delhi.
- Monkhouse F. J. and Wilkinson H. R., 1973: *Maps and Diagrams*, Methuen, London.
- Sarkar, A., 2008: *Practical Geography: A Systematic Approach*, Orient Longman Pvt. Ltd., Kolkata.
- Singh G. 2004: *Map Work and Practical Geography*, Vikas Publishing House Pvt. Ltd., Delhi,
- 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 Geo visualization* (3rd Edition), Prentice Hall.
- Steers J. A., 1965: *An Introduction to the Study of Map Projections*, London.
- Talukdar, S., 2010: *Introduction to Map Projections*, Eastern Book House, Guwahati

**Paper: GPH203G (General Elective)  
Physical Geography**

**Credits: 4 = 3+0+1 (48 Lectures)**

Unit	Content	No. of lectures
1	<b>Geomorphology</b> Nature, scope and branches of geomorphology, earth materials- composition of the earth's crust, rocks and minerals; processes of landform development - exogenic processes –weathering, mass wasting, erosion and deposition by running water and wind; resultant landforms	16
2	<b>Climatology and Oceanography</b> Elements and factors of weather and climate, structure and composition of atmosphere, air circulation, planetary wind system and local winds, pressure systems, cyclones and anticyclones Bottom configuration of oceans with special reference to Atlantic ocean, distribution of salinity, temperature and ocean deposits and resources, ocean currents – Atlantic ocean	16

3	<b>Soil and Biogeography</b> Factors of soil formation, soil forming processes, soil characteristics, soil profile; meaning and scope of biogeography, distribution of plants and animals, structure, functioning and material cycles of ecosystem, traditional ecological knowledge	16
4	<b>Practical:</b> Profile drawing of plain and mountain regions from toposheets Identification and interpretation of landform from toposheets Weather map interpretation Bathymetric curve Representation of soil-vegetation relationship along selected cross section World Bio-geographical regions	1 credit

#### Reading List:

- Ahmed, E., 1985: **Geomorphology**, Kalyani Publishers, New Delhi
- 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
- Dayal, P. (2nd Ed.) 1996: **A Textbook of Geomorphology**, Shukla Book Depot, Patna
- Kale V. S. and Gupta A., 2001: **Introduction to Geomorphology**, Orient Longman, Hyderabad.
- Khullar D.R. 2012: **Physical Geography**, Kalyani Publishers, New Delhi
- 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.
- Selby, 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
- Thornbury W. D., 1968: **Principles of Geomorphology**, Wiley.
- Wooldridge W. S. and Morgan R. S., 1959: **An Outline of Geomorphology: The Physical Basis of Geography**, Longmans