

U.G. 3rd SEMESTER SYLLABUS
DEPARTMENT OF GEOGRAPHY
COTTON UNIVERSITY

Paper Code: GPH 301C

No. of Lectures: 60

Paper Title: Geography of resources and economic activities(5 Credits L+T+P = 4+1+0)

Unit	Content	No. of lectures
1	Natural resources: concept and classification	6
2	Distribution, utilization, problems and management of land, water, forest and energy resources.	10
3	Conservation of natural resources; methods and techniques (special emphasis on water and forest), sustainable resource development.	10
4	Concept and classification of economic activity; physical, social ,economic and cultural factors affecting location of economic activities with special reference to agriculture (Von Thunen Theory),industry (Weber Theory)	10
5	Primary economic activities: agriculture and its types, forestry, fishing and mining.	8
6	Secondary activities: industries and its types, factors, production and distribution of (iron and steel, electronic industry).	8
7	Tertiary, quaternary and quinary activities.	8

Reading list:

- Cutter S. N., Renwich H.L. and Renwich W. (1991): *Exploitation, conservation, preservation: a geographical perspective on natural resources use*, John Wiley and Sons, New York.
- Gadgil M. and Guha, R.(2005): *the use and abuse of nature: Incorporating this Fissured Land: An ecological History of India and ecology and equity*, Oxford University press, USA
- Klee, G. (1991): *Conservation of natural resources*. Prentice Hall, England
- Mitchell, B. (1997): *Resources and Environmental Management*. Longman Harlow, England
- Owen S. and Owen P.L. (1991): *Environment, Resources and Conservation*, Cambridge University Press, New York.
- Alexander J.W. (1963): *Economic geography*, Prentice-Hall Inc., Englewood cliffs, New Jersey.
- Hodder, B. W. and Lee Roger (1974): *Economic geography*, Taylor and Francis.
- Willington, D.E. (2008): *Economic geography*, Husband Press
- Wheeler J.O. (1998): *Economic geography*, Wiley

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Paper Code: GPH 302C

No. of Lectures: 48

Paper Title: Oceanography, Soil and Biogeography (5 Credits L+T+P = 3+1+1)

Unit	Content	No. of lectures
1	Definition and scope of oceanography, coral reefs and islands: condition of growth, types of coral reefs, theories of coral formation	9
2	Ocean salinity, temperature, ocean deposits, bottom configuration of the Atlantic and Pacific Oceans	6
3	Movement of ocean water – waves, currents and tides, tsunamis, currents of the Atlantic and Pacific Oceans	9
4	Concept of biogeography, biomes - plant-animal association in varying habitats and environments	9
5	Ecology and ecosystem, bio-energy cycles in the terrestrial ecosystem, traditional ecological knowledge, biodiversity hotspot	8
6	Factors and processes of soil formation, properties of soil, classification of soil, soil profile and catena	7
7	Practical: Hypsometric curves, thermometric and bathymetric curve, zoo-geographical regions, documentation of flora and fauna for a specified period in the University campus, analysis of soil characteristics, ocean currents of the Atlantic and Pacific Ocean	1 credit

Reading List:

- Anikouchine W. A. and Sternberg R. W., 1973: *The World Oceans: An Introduction to Oceanography*, Prentice-Hall.
- Garrison T., 1998: *Oceanography*, Wordsworth Company, Belmont.
- Gerald S., 1963: *General Oceanography: An Introduction*, John Wiley & Sons, New York.
- Kershaw S., 2000: *Oceanography: An Earth Science Perspective*, Stanley Thornes, U. K.
- King C. A. M., 1962: *Oceanography for Geographers*, Edward Arnold.
- Pinet P. R., 2008: *Invitation to Oceanography* (Fifth Edition), Jones and Barlett Publishers, USA, UK and Canada.
- Sharma R. C. and Vatal M., 1980: *Oceanography for Geographers*, Chaitanya Publishing House, Allahabad.
- Sverdrup K. A. and Armbrust, E. V., 2008: *An Introduction to the World Ocean*, McGraw Hill, Boston.
- Thurman H. V., 1996: *Essentials of Oceanography*, Prentice-Hall, New Jersey
- Bradshaw, M. J., 1979: *Earth and Living Planet*, ELBS, London.
- Bunting, B. T., 1967: *The Geography of Soil*, Hutchinson, London.
- Foth, H. D. and Turk, L. M. 1972: *Fundamentals of Soil Science*, John Wiley, New York.
- GovindaRajan, S. V. and Gopala Rao, H. G., 1978: *Studies on Soils of India*, Vikas, New Delhi.
- Goudie, Andrew, 1981: *The Human Impact*, Basil Blackwell, Oxford.

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- Hugget, R. J., 1988: *Fundamentals of Biogeography*. Routledge, London.
- Hugget, R. J., 1995: *Geoecology: An Evolutionary Approach*, Routledge, London.
- Hussain, M. (ed), 1994: *Biogeography (Part I&II)*, Anmol Publications Pvt. Ltd., New Delhi.
- Newbiggin: *Plant and Animal Geography*.
- Pears, N., 1985: *Basic Biogeography*. 2nd Edition, Longman, London.
- Robinson, H., 1982: *Biogeography*, E.L.B.S., Mc Donald & Evans, London.
- Russell, E.W., 1973: *Soil Condition and Plant Growth*, Longman, London.
- Mc. Bride, M. B., 1999: *Environmental Chemistry of Soils*, Oxford University Press, New York
- Odum, E. P., 1971: *Fundamentals of Ecology*, W.B. Saunders, Philadelphia.
- Singh, S. 1991: *Environmental Geography*, Prayag Publications, Allahabad.
- Smith, R. L., 1977: *Ecology of Man- An Ecosystem Approach*.
- Spellberg, I. F. & Sawyer, J. W. D., 1999: *An Introduction to Applied Biogeography*, Cambridge University Press.
- World Resources, 2001: *People and Ecosystems*; World Resources Institute, Washington.

Paper Code: GPH 303C

No. of Lectures: 48

Paper Title: Quantitative Methods (5 Credits L+T+P = 3+0+2)

Unit	Content	No. of lectures
1	Significance of statistical methods in geography; sources of data, geographical data matrix, scales of measurement- nominal, ordinal, interval and ratio	8
2	Descriptive statistics: measures of central tendency- mean, median and mode of individual, discrete and continuous data, their merits and demerits, relationship among mean, median and mode	12
3	Positional measures- deciles, quartiles and percentiles of data; measures of dispersion – absolute and relative measures of dispersion, range, inter-quartile range, mean deviation, standard deviation, coefficient of variation, variance, Lorenz curve	10
4	Sampling- methods of sampling; numerical distribution- normal and skewed, skewness and kurtosis	8
6	Correlation analysis- types and methods of correlation, Spearman's rank correlation, Karl Pearson's product moment correlation, Kendall's method	10
7	Practical- Locating mean, median and mode graphically, calculation of mean, median and mode of geographic data, preparation of variability maps (Assam and N.E. India) of rainfall and agricultural production; computation of 'r' for ordinal and interval data, Lorenz Curve	2 credit

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Reading List:

- Alvi, Z. 1995: *Statistical Geography*, Rawat Publications, Jaipur and New Delhi
- Berry B.J.L and Marble D. F. (eds): *Spatial Analysis- A reader in Geography* Prentice Hall, Englewood Cliffs, N. J.
- Ebdon D. 1977: *Statistics in Geography: A practical Approach* (2nd edition 1991) Wiley
- FitzGerald, B. P. *et al* 1974: *Science in Geography Series*, Oxford University Press, London
- Gregory, S. 2014: *Statistical Methods and the Geographer*, Routledge
- Hammond R. and McCullagh P. S., 1978: *Quantitative Techniques in Geography*, Oxford University Press
- King L.J. 1969: *Statistical Analysis in Geography*, Prentice Hall
- Mahmood A., 1977: *Statistical Methods in Geographical Studies*, Concept
- Pal, S. K. 1998: *Statistics for Geoscientist*, Tata McGraw Hill, New Delhi
- Rogerson, P 2006: *Statistical Methods for Geography* (2nd Edition), Sage Publications, London, New Delhi

Paper – GPH304E

No. of Lectures: 48

Paper Title: Human Geography (4 Credits L+T+P = 3+1+0)

Unit	Content	No. of lectures
1	Introduction: defining human geography, branches and approaches, Determinism and Possibilism	6
2	Population: population growth, density and distribution, population composition: age structure, literacy, rural- urban, demographic transition theory, dynamics of population change.	10
3	Settlements: types of urban and rural settlements, patterns, morphology and functions.	6
4	Cultural regions: race, religion, and languages	6
5	Social geography: concept of space, society and environment of social well-being, social groups.	6
6	Human-Environment relationship with special reference to mountain, desert and plains.	6
7	Man as an agent of environmental change, degradation of forests, wetlands and agricultural lands, Environmental education.	8

Reading list:

- Chandna, R.C.(2010): *Population Geography*, Kalyani Publication
- Hassan, M.I.(2005): *Population Geography*, Rawat Publications, Jaipur

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- Jordan-Bychkov et.al. (2006): *The Human Mosaic: A thematic introduction to cultural geography*. W.H. Freeman and Company, New York
- Maurya, S.D. (2012): *ManabBhugol*, ShardaPustakBhawan, Allahabad.
- Hussain& Majid (2012): *ManabBhugol*, Rawat Publications, Jaipur
- Adhikari, S: *Geographical Thought*, Chaitanya Publications, Allahabad.
