# **Brief Summary**

# 3 Year Integrated UG Courses (B.A./ B.Sc.) in Geography

### B.A. /B.Sc. Part I

The B.A. /B.Sc. Part-I Examination in Geography will be 150 marks. There will be two theory papers and one Practical each of 50 marks as follows:

Paper - I Physical Geography

Paper - II Human Geography.

Paper - III Practical Geography

### B.A. /B.Sc. Part-II

The B.A./B.Sc. Part-II Examination in Geography will be 150 marks. There will be two theory papers and one Practical each of 50 marks as follows:

Paper-I Economic and Resources Geography

Paper-II Regional Geography of India

Paper-III Practical Geography

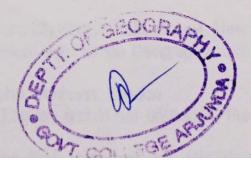
### B.A. /B.Sc. Part III

The B.A./B.Sc. Part III Examination in Geography will be 150 marks. There will be two theory papers and one Practical each of 50 marks as follows

Paper – I Remote Sensing and GIS

Paper - II Geography of Chhattisgarh

Paper - III Practical Geography



#### B.A./B.Sc. Part I

### PAPER - I PHYSICAL GEOGRAPHY

Max. Marks: 50 (Paper Code-0117)

- Unit I The Nature and Scope of Physical Geography. Origin of the Earth, Geological Time Scale, Earth's Interior, Continental Drift Theory (Wegner), Plate Tectonics, Isostasy.
- Earth movements: Earthquakes and Volcanoes. Rocks, Weathering, Erosion, and Unit II Normal cycle of erosion, Evaluation of landscapes-Fluvial, Arid, Glacial, Karts and Coastal landscape.
- Elements of Weather and Climate, Composition and Structure of the Atmosphere. Unit III World patterns of Atmospheric Temperature, Pressure, and Wind.
- Atmospheric Moisture, and Disturbances, Climatic Classification (Koppen and Unit IV Thornthwait) types, characteristics and World patterns.
- Surface relief of Pacific Ocean, Atlantic Ocean, and Indian Ocean. Distribution Unit V of Temperature and Salinity of oceans and seas, Currents and Tides, Ocean Deposits and Coral Reefs, and Oceanic Resources.

- 1. Barry, R. G. and Chorley, R. J. (1998): Atmosphere, Weather and Climate. Routledge, London.
- 2. Bryant, H. Richard (2001): Physical Geography Made Simple, Rupa and Company. New Delhi
- 3. Bunnett, R.B. (2003): Physical Geography in Diagrams, Fourth GCSE edition, Pearson Education (Singapore) Private Ltd.
- 4. Garrison, T. (1998): Oceanography, Wordsworth Company., Belmont.
- 5. Lake, P. (1979): Physical Geography (English and Hindi editions), Cambridge University Press, Cambridge.
- 6. Lal, D.S. 1993: Climatology, 3rd edition, Chaitanya Pub. House, New Delhi
- 7. Leong Goh Cheng (2003): Certificate Physical and Human Geography, Oxford University Press, New Delhi.
- 8. Monkhouse, F.J. (1979): Physical Geography. Methuen, London
- 9. Singh, S. (2003): Physical Geography. (English and Hindi editions.). Prayag Pustak Bhawan, Allahabad;
- 10. Trewartha, G.T., Robinson, A.H., Hammond, E.H., and Horn, A.T. (1976/1990): Fundamentals of Physical Geography, 3rd edition. MacGraw-Hill, New York.
- 11. Singh, M.B. (2001): Bhoutik Bhugol, Tara Book Agency, Varanasi
- 12. Strahler, A.N. and Stahler, A.M. (1992): Modern Physical Geography. John Wiley and Sons, New York.

#### B.A. /B.Sc. Part I

### PAPER - II HUMAN GEOGRAPHY

Max. Marks: 50 (Paper Code-0118)

Unit I	Definition and Scope of Human Geography. Man - environment relationship;
	Determinism, Possibilism, and Probabilism; Human Development Index (HDI).

- Unit II Classification of Human Races their Characteristics and Distribution; Human adaptation to environment: Eskimos, Bushman, Pigmy, Gond, Masai, and Naga.
- Unit III Growth, Density and Distribution of World Population and factors influencing Spatial distribution; Over , Under, and Optimum Population; Migration of Population. .
- Unit IV Settlements Urban Settlements: Urbanization, Evolution and Classification, Trends of Urbanization.

Rural settlements: Characteristics, Types and Regional Pattern, Rural Houses in India - Types, Classification and Regional Pattern.

Unit V Issues – Global Warming, Climate Change, Deforestation, Desertification, Air, Water and Soil Pollution.

- 1. 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,
- 3. Fellman, J. D., Arthur, G., Judith, G., Hopkins, J. and Dan, S. (2007): Human Geography: Landscapes of Human Activities. McGraw-Hill, New York. 10<sup>th</sup> edition.
- 4. Haggett, P. (2004): Geography: A Modern Synthesis. 8th edition, Harper and Row, New York.
- 5. Huggett, R. J. (1998): Fundamentals of Biogeography, Routledge, London.
- 6. Hussain, M. (1994): Human Geography, Rawat Publications, Jaipur.
- 7. Johnston, R. J., Gregory, D., Pratt, G. and Watts, M. (2009): The Dictionary of Human Geography. 5th edition, Basil Blackwell Publishers, Oxford.
- 8. Kaushik, S.D. and Sharma, A.K. (1996): Principles of Human Geography (in Hindi), Rastogi Publication, Meerut.
- 9. Norton, W. (2008): Human Geography, Oxford University Press, New York. 5thed.
- 10. Saxena, H. M. (2000): Environmental Management. Rawat Publications., Jaipur and New Delhi.
- 11. Singh, K. N. and Singh, J. (2001): Manav Bhugol. Gyanodaya Prakashan, Gorakhpur. 2<sup>™</sup>edition.
- 12. Singh, L.R. (2005): Fundamentals of Human Geography, Sharda Pustak Bhawan, Allahabad
- 13. 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. Prentice-Hall, Englewood Cliffs, New Jersey.

#### B.A. /B.Sc. Part I

### PAPER - III PRACTICAL GEOGRAPHY

Max. Marks: 50

#### SECTION A

CARTOGRAPHY AND STASTISTICAL METHODS

(M.M. 25)

Unit I

Scale: Statement Scale, Representative Fraction (R.F.), Linear scale - Simple,

Diagonal, Comparative, and Time Scales.

Unit II

Contour: Methods of showing relief; Hachures, Contours; Representation of

different landforms by contours.

Unit III

Graph and Diagram: Line graph, Bar Diagram (Simple and Compound), Circle

Diagram, Pie Diagram

Unit IV

Statistical Technique: Mean, Median and Mode

SECTION B

SURVEYING -

(M.M. 15)

Unit V

Chain and Tape Survey. Triangulation method, Open Traverse and Closed

Traverse

PRACTICAL RECORD AND VIVA VOCE

(M.M. 10)

### Books Recommended:

- 1. Davis, R.E. and Foote, F.S. (1953): Surveying, 4<sup>th</sup>edition, McGraw Hill Publication, New York
- 2. Jones, P.A.(1968): Fieldwork in Geography, Longmans, Green and Company Ltd., First Publication, London
- 3. Monkhouse, F. J. and Wilkinson, F.J. (1985): Maps and Diagrams. Methuen, London
- 4. Natrajan, V. (1976): Advanced Surveying, B.I. Publications., Mumbai
- 5. Pugh, J.C. (1975): Surveying for Field Scientists, Methuen and Company Ltd., London, First Publication.
- 6. Raisz, E. (1962): General Cartography. John Wiley and Sons, New York. 5"edition.
- 7. Sarkar, A. K. (1997): Practical Geography: A Systematic Approach. Orient Longman, Kolkata.
- 8. Sharma, J. P. (2001): Prayogik Bhugol., Rastogi Publication, Meerut 3rd. edition.
- 9. Singh, R.L. and Singh, Rana P.B. (1993): Elements of Practical Geography. (Hindi and English editions). Kalyani Publishers, New Delhi,.
- 10. Singh, L.R. (2006): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad.
- 11. Venkatramaiah, C. (1997): A Text Book of Surveying, Universities Press, Hyderabad.



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### B.A. /B.Sc. Part II

# PAPER - I ECONOMIC AND RESOURCES GEOGRAPHY

Max. Marks: 50 (Paper Code-0187)

Unit I

Meaning, scope and approaches to economic geography; Main concepts of economic geography; Resource: concept and classification; Natural resources: soil, forest and water.

Unit II

Mineral resources: iron ore and bauxite; Power resources: coal, petroleum and hydro electricity; Resource conservation; Principal crops: wheat, rice, sugarcane and tea

Unit III

Agricultural regions of the world (Derwent Whittlesey); Theory of agricultural location (Von Thunen); Theory of industrial location (Weber); Major industries: iron and steel, textiles, petrochemical and sugar; industrial regions of the world.

Unit IV

World transportation: major trans-continental railways, sea and air routes; International trade: patterns and trends; Major trade blocks: LAFTA, EEC, ASEAN; Effect of globalization on developing countries.

Unit V

Conservation of resources; evolution of the concept, principles, philosophy, and approach to conservation, resources conservation and practices. Policy making and sustainable development.

- 1. Alexander, J. W. (1988): Economic Geography. Prentice-Hall, New Delhi,.
- 2. Bryson, J., Henry, N., Keeble, D. and Martin, R. (eds.) (1999): The Economic Geography Reader: Producing and Consuming Global Capitalism. John Wiley and Sons, Inc, New York.
- 3. Clark, G. L., Gertler, M. S. and Feldman, M. P. (eds.) (2000): The Oxford Handbook of Economic Geography. Oxford University Press, USA.
- 4. Coe, N. (2007): Economic Geography: A Contemporary Introduction. Blackwell Publishers, Inc., Massachusetts.
- 5. Gautam, A. (2006): Aarthik Bhugol Ke Mool Tattava, Sharda Pustak Bhawan, Allahabad.
- 6. Guha, J. S. and Chattoraj, P.R. (2002): A New Approach to Economic Geography: A Study of Resources. The World Press Private Limited, Kolkata.
- 7. Hanink, D. M. (1997): Principles and Applications of Economic Geography: Economy, Policy, Environment. John Wiley and Sons, Inc, New York.
- 8. Hartshorne, T. A. and Alexander, J. W. (1988): Economic Geography (3rd revised edition) Englewood Cliff, New Jersey, Prentice Hall
- 9. Hudson, R. (2005): Economic Geographies: Circuits, Flows and Spaces. Sage Publications, London.
- 10. Knowles, R, Wareing, J. (2000): Economic and Social Geography Made Simple, Rupa and Company, New Delhi.

### B.A. /B.Sc. Part II

# PAPER - II GEOGRAPHY OF INDIA

Max. Marks: 50 (Paper Code-0188)

Unit I	Physical Features: Charles D. L. C. Oliver D. L.
	Physical Features: Structure, Relief, Climate, Physiographic Regions, Drainage,
	Climate-origin and mechanism of monsoon, and regional and Seasonal variation.
Herit II	the first the first the first transfer and seasonal variation.

Natural Resources: Soils - types, their distribution and characteristics. Water Resources (major irrigation and hydel power projects); Forests-types, distribution, economic significance and conservation. Mineral and Power resources-Iron-ore, Manganese, Copper, Coal, Petroleum and Natural gas, Non conventional sources of energy.

Unit III Cultural Features: Population - Growth, Density and Distribution. Agriculture - Major crops, impact of Green Revolution and Agricultural regions.

Unit IV Industries Localization, Development & Production - Iron and steel, Cotton Textile, Cement, Sugar, Transport, Foreign Trade. Industrial Region.

Unit V Detailed Study of the following regions of India: Kashmir Valley, North-East Region, Chhota Nagpur Plateau, Thar Desert, Islands of India.

- 1. Chauhan, P.R. and Prasad, M. (2003): *Bharat Ka Vrihad Bhugol*, Vasundhara Prakashan, Gorakhpur.
- 2. Farmer, B.H. (1983): An Introduction to South Asia. Methuen, London
- 3. Gautam, A. (2006): Advanced Geography of India, Sharda Pustak Bhawan, Allahabad
- 4. Johnson, B.L.C. (1963): Development in South Asia. Penguin Books, Harmondsworth
- 5. Krishnan, M.S. (1982): Geology of India and Burma, CAS Publishers and Distributors, Delhi.
- 6. Khullar, D.R. (2007): India: A Comprehensive Geography, Kalyani Publishers, New Delhi
- 7. Nag, P. and Gupta, S. S. (1992): Geography of India, Concept Publishing Company, New Delhi.
- 8. Rao, B.P. (2007): Bharat kee Bhaugolik Sameeksha, Vasundhara Prakashan, Gorakhpur.
- 9. Sharma, T.C. and Coutinho, O. (2003): Economic and Commercial Geography of India, Vikas Publishing House Private Ltd. New Delhi.
- 10. Singh , J. (2003): India: A Comprehensive Systematic Geography. Gyanodaya Prakashan, Gorakhpur
- 11. Singh, J. (2001): Bharat: Bhougolik Aadhar Avam Ayam, Gyanodaya Prakashan, Gorakhpur.
- 12. Singh, R.L. (ed.) (1971): India: A Regional Geography. National Geographical Society of India, Varanasi.
- 13. Spate, O.H. K., Learmonth A. T. A. and Farmer, B. H. (1996): India, Pakistan and Sri Lanka. Methuen, London, 7<sup>th</sup> edition.
- Sukhwal, B.L. (1987): India: Economic Resource Base and Contemporary Political Patterns. Sterling Publication, New Delhi
- 15. Tiwari, R.C. (2007): Geography of India, Prayag Pustak Bhawan, Allahabad.
- 16. Wadia, D. N. (1959): Geology of India. Mac-Millan and Company, London and student edition, Madras.

# B.A. /B.Sc. Part II PAPER - III PRACTICAL GEOGRAPHY Max. Marks: 50

SECTION A

MAP INTERPRETATION, PROJECTIONS AND STATISTICAL METHODS (M.M. 25) Unit I

Distribution Maps: Dot Map, Choropleth Map and Isopleth Map. Unit II

Map Projections: Definition and classification; Conical, Zenithal, and

Cylindrical Projections.

Unit III Interpretation of Weather Maps: Use of Meteorological Instruments.

Unit IV Statistical Methods: Quartile: Mean Deviation, Standard Deviation and Quartile

Deviation; Relative Variability and Co-efficient of Variation.

SECTION B

SURVEYING (M.M. 15)

Surveying: Whole Circle Bearing and Reduced Bearing, Methods of Prismatic Unit V Compass Survey.

PRACTICAL RECORD AND VIVA VOCE

(M.M.10)

- 1. Alvi, Z. 1995: Statistical Geography: Methods and Applications, Rawat Pub. New Delhi: .
- 2. Davis, R.E. and Foote, F.S. (1953): Surveying, 4th edition, McGraw Hill Publication, New York
- 3. Kanetker, T.P. and Kulkarni, S.V.(1967): Surveying and Levelling, Vol I and II V.G. Prakashan, Poona.
- 4. Natrajan, V. (1976): Advanced Surveying, B.I. Publications., Mumbai.
- 5. Pal, S.K. 1999: Statistics for Geoscientists, Concept publishing Company, New Delhi
- 6. Punmia, B.C.(1994): Surveying, Vol I, Laxmi Publications Private Ltd, New Delhi.
- 7. Raisz, E. (1962): General Cartography. John Wiley and Sons, New York. 5 edition
- 8. Sarkar, A. K. (1997): Practical Geography: A Systematic Approach. Orient Longman, Kolkata.
- 9. Sharma, J. P. (2001): Prayogik Bhugol., Rastogi Publication, Meerut 3<sup>rd</sup>. edition.
- 10. Silk, J. 1979: Statistical techniques in Geography, George Allen and Unwin, London
- 11. Singh, R.L. and Singh, Rana P.B. (1993): Elements of Practical Geography. (Hindi and English editions). Kalyani Publishers, New Delhi,.
- 12. Singh, L.R. (2006): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad.
- 13. Venkatramaiah, C. (1997): A Text Book of Surveying, Universities Press, Hyderabad.



#### B.A./B.Sc Part III

# PAPER - III PRACTICAL GEOGRAPHY

Max. Marks: 50

### SECTION A

## MAP READINGS AND INTERPRETATION

(M.M. 20)

Unit I

Graphical Representation: Band graph, Climograph, Square root, Cube-root.

Unit II

Topographical Sheets: Classification and numbering system (National and International), Interpretation of Topographical Sheets with respect to cultural and physical features.

Unit III

Satellite Imageries: Describing the Marginal Information, Image interpretation: Visual Methods –Landuse /Landcover Mapping. Use and Application of GPS.

#### SECTION B

# SURVEYING AND FIELD REPORT

(M.M.20)

Unit IV

Surveying: Plane Table Survey, Basic Principles of plane table surveying, Plane table survey including intersection and resection.

Unit V

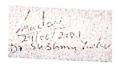
Field work and field report: physical, social and economic survey of a microregion.

# PRACTICAL RECORD AND VIVA VOCE

(M.M.10)

## Books Recommended:

- 1. Archer, J.E. and Dalton, T.H. (1968): *Field Work in Geography*. William Clowes and Sons Ltd. London and Beccles.
- 2. Bolton, T. and Newbury, P.A. (1968): *Geography through Fieldwork*. Blandford Press, London.
- 3. Campell, J. B. (2003): Introduction to Remote Sensing. 4th edition. Taylor and Francis, London.
- 4. Chaunial, D. D. (2004): Remote Sensing and Geographical Information System(in Hindi), Sharda Pustak Bhawan, Allahabad
- 5. Cracknell, A. and Ladson, H. (1990): Remote Sensing Year Book. Taylor and Francis, London.
- 6. Curran, P.J. (1985): Principles of Remote Sensing. Longman, London.
- 7. Davis, R.E. and Foote, F.S. (1953): Surveying, 4th edition, McGraw Hill Publication, New York
- 8.
- 9. Deckshatulu, B.L. and Rajan, Y.S. (ed.) (1984): Remote Sensing. Indian Academy of Science, Bangalore.
- Floyd, F. and Sabins, Jr. (1986): Remote Sensing: Principles and Interpretation. W.H. Freeman, New York.
- 11. Gautam, N.C. and Raghavswamy, V. (2004). Land Use/ Land Cover and Management Practices in India. B.S. Publication., Hyderabad.



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# B.A./B.Sc Part III PAPER - II

## GEOGRAPHY OF CHHATTISGARH

Max. Marks: 50

Unit I Physical Features: Geological Structure, Relief and Physiographic Regions, Drainage, Climate.

Unit II

Natural Resources: Soils – Types, characteristics and their Distribution. Water Resources (Major Irrigation and Hydel Power Projects), Forests-types, Distribution, Conservation of Forest. Mineral Resources-iron-ore, Coal, Dolomite Lime stone, Bauxite, etc. Power Resources of Chhattisgarh.

Unit III Agriculture and Populations – Agriculture: Cereals, Pulses and other crops.
Population: Growth, Distribution, and Density; Tribal Populations; and Urban and Rural Population.

Unit IV Industries - Iron and Steel, Cement, Sugar, Aluminum; Industrial Regions of Chhattisgarh.

Unit V Trade and Transport, Tourism, Socio-Economic Development of Chhattisgarh.

### Books Recommended:

- 1. Jha, Vibhash Kumar and Saumya Naiyyar (2013) Chhattisgarh Samagra, Chhattisgarh Rajya Hindi Granth Akadmi, Raipur
- 2. Kumar, Pramila (2003): Chhattisgarh Ek Bhugolik Addhyayan. Madhya Pradesh Hindi Granth Akadmi, Bhopal
- 3. Nagesh Jitendra and at all (2014): Chhattisgarh Sandarbh 2014 Jansanmpark Vibhag, C.G. Govt., Raipur
- 4. Tiwari, Vijay Kumar ( ): Geography of Chhattisgarh, Himalya Publishing House, Pvt. Ltd
- 5. Tripathi, Kaushlendra and Pursottam Chandrakar (2001): Geography of Chhattisgarh, Shardaprakashan, Aazad Nagar, Bilaspur.
- 6. Verma ,L.N. (2017): Geography of Chhattisgarh, Madhya Pradesh Hindi Granth Akadmi, Bhopal





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# B.A. /B. Sc. Part III PAPER - I REMOTE SENSING AND GIS

Max. Marks: 50

Unit I	Basics of Remote Sensing: definition, history, and Scope; Electro-magnetic
	Radiation: Characteristics, Spectral regions and Bands; Interaction with earth
	surface features and atmosphere; Spectral Signature.

- Unit II Types of Remote Sensing: Air borne and Space borne; Aerial photos: Types and Characteristics; Remoté Sensing satellites: Platforms and sensors: active and passive, sensor characteristics: spatial resolution, spectral resolution, radiometric resolution, temporal resolution. Product.
- Unit III Visual and Digital image processing techniques; Remote Sensing application in resource mapping and environmental monitoring, remote sensing in India: development and Growth. Indian Satellites, Space Organizations and data products.
- Unit IV Introduction of GIS: Definition of Geoinformatics, Scope and Importance of Geoinformatics, History of GIS, Components of GIS, Functions of GIS, GIS tasks-Input, Manipulation, Management, Query analysis, Visualization, Toposheets, Surveying, Aerial photographs, Satellite data and images, Data types-Spatial and Non spatial.
- Unit V Data model and data analysis: Raster data and their characteristics, Vector data and their characteristics, Raster data analysis- grid cells or Pixels. Vector data analysis- Spatial data, Generation in Vector Format, Spatial and Non -Spatial data Management. Spatial information Technology

- 1. Bhatta, B. (2010): Remote Sensing and GIS, Oxford University Press, New Delhi.
- 2. Campbell, J.B. (2002): Introduction to Remote Sensing. 5<sup>th</sup> edition, Taylor and Francis, London
- 3. Curran, P.J. (1985): Principles of Remote Sensing, Longman, London
- 4. Kang-tsung Chang (2003) Geographic Information Systems, Tata McGraw Hill, New Delhi
- 5. Lillesand, T.M. and Kiefer, R.W. (2000): Remote Sensing and Image Interpretation. 4<sup>th</sup> edition. John Wiley and Sons, New York
- 6. Lo Albert, C.P., and Young, K.W (2003) Concepts and Techniques of Geographical Information Systems, Prentice Hall of India Pvt. Ltd., New Delhi.
- 7. Nag Prithvish and Kudrat M. (1998): Digital Remote Sensing, Concept Publishing Company, New Delhi
- 8. Star J, and J. Estes, (1994), Geographic Information Systems: An Introduction, Prentice Hall, New Jersy.
- 9. Williams J. (1995): Geographic information from space, John Wiley and Sons, England,