

Urgent

(Both by post and by e- mail)

No. 9430 / Acd.-I

Dated: 10/12/16

To

The Principals,

(All the Affiliated Colleges under Sambalpur University having
Three Year Degree Courses excluding Autonomous Colleges.)

Sub: Syllabus & Implementation of CBCS pattern Arts/Science/Commerce (Pass and
Hons.) from the Academic Session 2016-17.

Ref :- This office letter No 5314/ Acd.-I dated 21.7.16 and letter No. 5970/Acd.-I dated 8.8.16.

Sir,

In continuation to the letters and the subject cited above, I am directed to intimate you that the Vice- Chancellor has been pleased to approve the syllabus for Courses / papers related to **Geography** for CBCS + 3 courses degree B.A. and B.Sc.. (Both Pass & Hons.) examinations under 6 (15) of O.U. Act -1989 giving it effect from the Academic Session, 2016-17. The detail Courses of Studies is enclosed herewith for your reference and necessary action.

This may kindly be noted that it is the final syllabus for *Geography* subject/ papers under CBCS pattern. It may be made available to teachers and students concerned. Further you are requested to ensure teaching of the courses in your colleges accordingly.

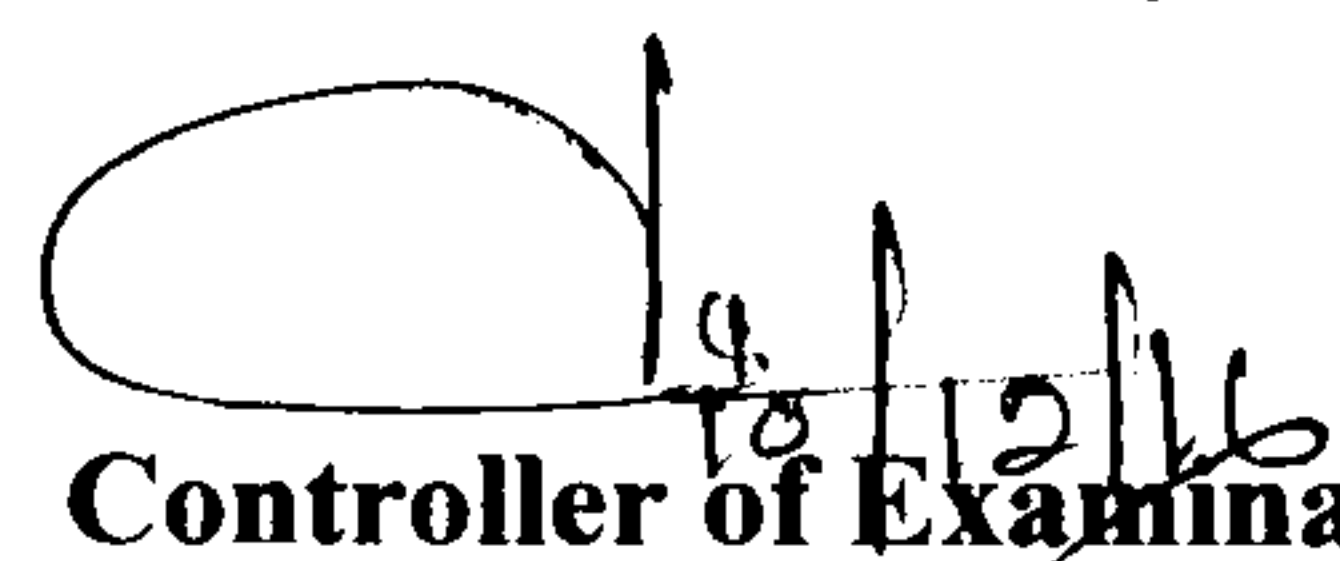
Any error and omission etc. may kindly be intimated to this office.

. Any queries on the matter may be made through e-mail: coesuniv@gmail.com.

Thanking you,

Yours faithfully,

Encl:- As above

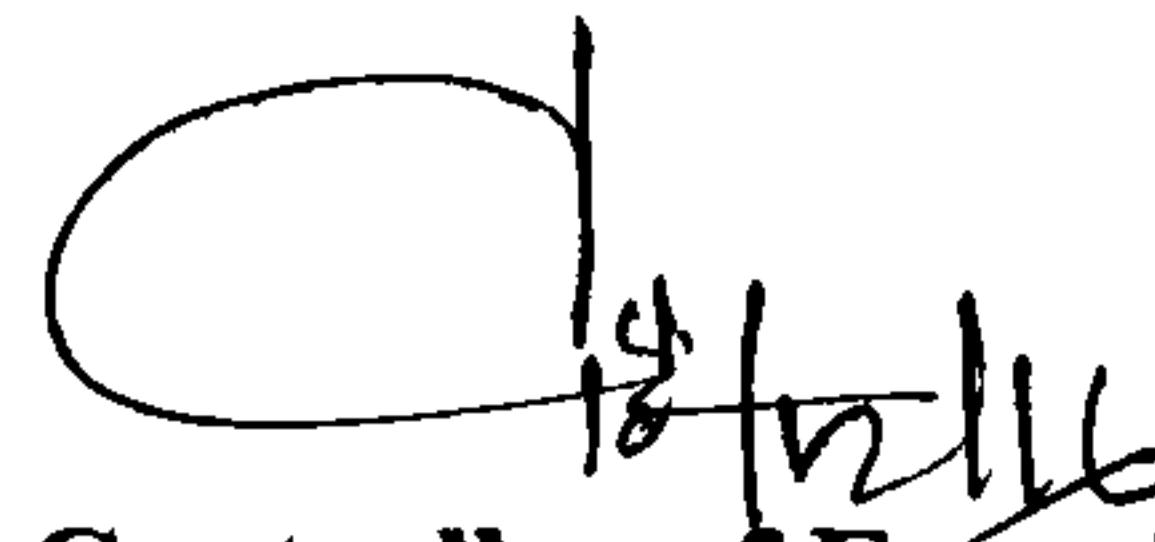

Controller of Examinations

P.T.O.

Memo No. 9431 /Acad.-I(BOS), dtd. 10/12/16

Copy forwarded with enclosure for information and necessary action to:

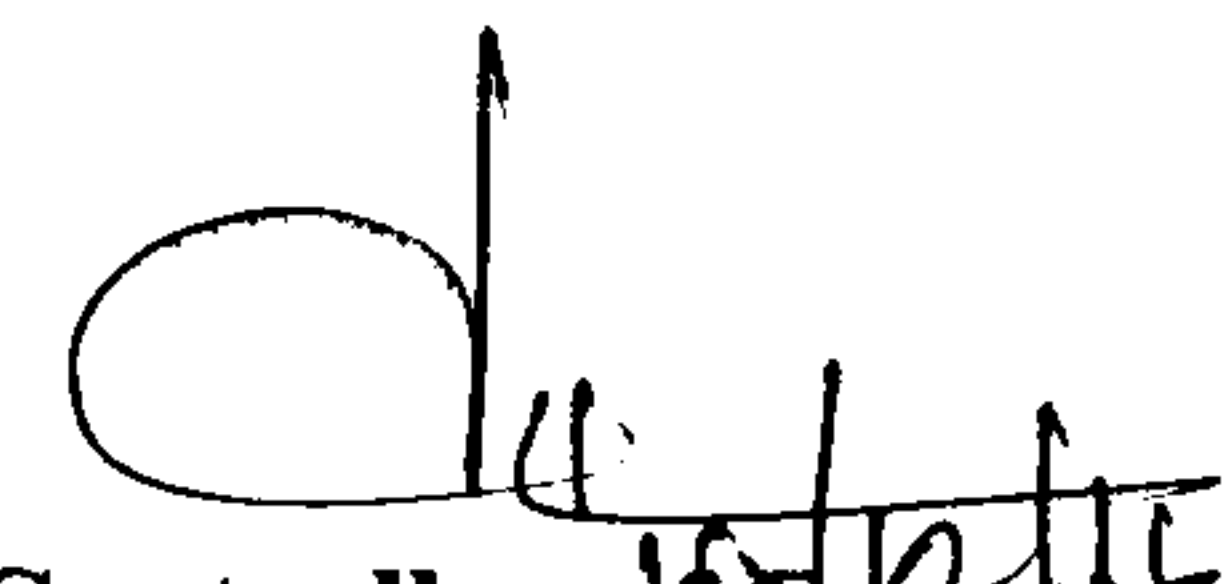
1. The Chairman, Post Graduate Council, Sambalpur University.
2. The Director, College Development Council, Sambalpur University.
3. The Director, Directorate of Distance and Continuing Education, Sambalpur University.
4. The Co-ordinator, Private Examination Cell, Sambalpur University.
5. Asst. Registrar (Examination), Sambalpur University.
6. Programmer, University Computer Unit, Sambalpur University.
7. Asst. Controller of Examinations, Sambalpur University.
8. Section Officer / Assistant –in- Charge, **e – Governance Cell**, Sambalpur University with request to provide all the materials in the official web- site accordingly. (as + 3 cbcs- syllabus –Geography –Final)
9. Section Officers, Computer Unit, E.G.-I , EG-II , E.C.- I , EC-II,EC- VI Sections.
10. Five spare Copies for Academic-I Sections with enclosure.


Controller of Examinations

Memo No. 9432 /Acad.-I(BOS), dtd. 10/12/16

Copy forwarded without enclosure for information and necessary action to:

1. **The Dy. Director, e – Governance Cell**, Sambalpur University with request for needful to provide all the materials in the official web- site accordingly .
2. P.A. to the Vice- Chancellor, Sambalpur University.
3. P.A. to the Registrar, Sambalpur University.
4. P.A. to the Controller of Examinations, Sambalpur University.


Controller of Examinations

HONOURS COURSES AT A GLANCE

SUBJECT:

DISCIPLINE SPECIFIC CORE- 14 PAPERS

Number	Semester	Title of the Course	Credit	
			Theory	Practical/ Tutorial
DSC I	I	Geomorphology	5	1
DSC II		Cartography	4	2
DSC III	II	Human Geography	5	1
DSC IV		Resource Geography	4	2
DSC V	III	Climatology	4	2
DSC VI		Statistical Method in Geography	4	2
DSC VII		Geography of India	5	1
DSC VIII	IV	Economic Geography	5	1
DSC IX		Environmental Geography	5	1
DSC X		Research Methodology	4	2
DSC XI	V	Regional Planning & Development	5	1
DSC XII		Tourism	4	2
DSC XIII	VI	Evolution of Geographical thought	5	1
DSC XIV		Geography of Odisha	4	2

DISCIPLINE SPECIFIC ELECTIVE-4 PAPERS

Number	Semester	Title of the Course	Credit	
			Theory	Practical/ Tutorial
DSE I	V	Population Geography	5	1
DSE II		Urban Geography	5	1
DSE III	VI	Political Geography	5	1
DSE IV		Oceanography	5	1

GENERIC ELCTIVE-4 PAPERS

Number	Semester	Title of the Course	Credit	
			Theory	Practical/ Tutorial
GE I	I	Physical Geography	5	1
GE II	II	Geography of India	5	1
GE III	III	Human Geography	5	1
GE IV	IV	Environmental Geography	5	1

SKILL ENHANCEMENT COURSES-LIST-A (MINIMUM 1)

Number	Semester	Title of the Course	Credit	
			Theory	Practical/ Tutorial
SEC I	V V	Research Methods	5	1
	VI VI			

Unit wise Question pattern.

Unit 1, 2, 3 will carry 12 marks each and long type ~~ques~~ questions
and unit 4 will carry 14 marks and objective questions

Archana Naik
8.12.16.

Archana Naik
8.12.16

DISCIPLINE SPECIFIC CORE PAPERS

Credits: Papers X (Theory + Practical) = 14 X (4+2) = 84

B.A. (HONOURS) GEOGRAPHY
Core- Courses
Core-1
Geomorphology
Fullmark's -Theory 50, Tutorial 50 (5+1 Credits)

1. Geomorphology- Definition, Nature and scope
Earth – Interior structure, Isostasy (Airy and Pratt's view)
2. Earth movement – Plate Tectonics, Types of Folds and faults, Earth quakes and volcanoes (only types and distribution)
3. Geomorphic process - Weathering, mass wasting, cycle of Erosion (Davis)
4. Evolution of land forms – (Erosional and depositional)
Fluvial, Aeolian, Glacial.

Tutorial

Reading List

1. Bloom A. L., 2003: *Geomorphology: A Systematic Analysis of Late Cenozoic Landforms*, Prentice-Hall of India, New Delhi.
2. Bridges E. M., 1990: *World Geomorphology*, Cambridge University Press, Cambridge.
3. Christopherson, Robert W., (2011), *Geosystems: An Introduction to Physical Geography*, 8 Ed., Macmillan Publishing Company
4. Kale V. S. and Gupta A., 2001: *Introduction to Geomorphology*, Orient Longman, Hyderabad.
5. Knighton A. D., 1984: *Fluvial Forms and Processes*, Edward Arnold Publishers, London.
6. Richards K. S., 1982: *Rivers: Form and Processes in Alluvial Channels*, Methuen, London.
7. Selby, M.J., (2005), *Earth's Changing Surface*, Indian Edition, OUP
8. Skinner, Brian J. and Stephen C. Porter (2000), *The Dynamic Earth: An Introduction to physical Geology*, 4th Edition, John Wiley and Sons
9. Thornbury W. D., 1968: *Principles of Geomorphology*, Wiley.
10. Gautam, A (2010): *Bhautik Bhugol*, Rastogi Publications, Meerut
11. Tikkaa, R N (1989): *Bhautik Bhugol ka Swaroop*, Kedarnath Ram Nath, Meerut
12. Singh, S (2009): *Bhautik Bhugol ka Swaroop*, Prayag Pustak, Allahabad

Objective

- 1 To represents the core of the geographical inquiries
- 2 To Study the unification of a number of earth science dealing with the nature of man's environment
- 3 To study the spatial pattern of interactions between physical environment and human activities
- 4 To study the fundamental of lithosphere

Outcome

Students will be able to learn about the history and methodology of geomorphology, objectives and history of geomorphology, time scale and the study of the earth's surface, the process that shape the earth surface.

1. Cartography- Definition, Nature and scope scales –concept and application
Graphical construction of plain and diagonal scale.
2. Map projections- Classification properties and uses, Graphical construction of polar
zenithal stereographic, simple cylindrical, cylindrical equal area conical projection with
one standard parallels.
3. Topographical maps – Interpretation of Toposheet construction of profiles (Simple,
composite, projected and superimposed).
4. Slopes and gradients, Drainage pattern.
Practical- A practical record in pencil
- a- Construction of plain and diagonal scale
- b- Graphical construction of ~~plain and diagonal scale~~ Polar zenithal, stereographic,
simple cylindrical, cylindrical equal area, conical projection with one ~~stand~~
parallel. **standard**
- c- Interpretation of Topsheet, construction of profiles (simple, composite, projected,
superimposed).
- d- Practical record and viva

Reading List

1. Anson R. and Ormelling F. J., 1994: *International Cartographic Association: Basic Cartographic Vol.* Pregmen Press.
2. Gupta K.K. and Tyagi, V. C., 1992: *Working with Map*, Survey of India, DST, New Delhi.
3. Mishra R.P. and Ramesh, A., 1989: *Fundamentals of Cartography*, Concept, New Delhi.
4. Monkhouse F. J. and Wilkinson H. R., 1973: *Maps and Diagrams*, Methuen, London.
5. Rhind D. W. and Taylor D. R. F., (eds.), 1989: *Cartography: Past, Present and Future*, Elsevier, International Cartographic Association.
6. Robinson A. H., 2009: *Elements of Cartography*, John Wiley and Sons, New York.
7. Sharma J. P., 2010: *Prayogic Bhugol*, Rastogi Publishers, Meerut.
8. Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers.
9. Sarkar, A. (2015) *Practical geography: A systematic approach*. Orient Black Swan Private Ltd., New Delhi
10. Singh R L & Rana P B Singh (1991) *Prayogtmak Bhugol ke Mool Tatva*, Kalyani Publishers, New Delhi
11. Sharma, J P (2010) *Prayogtmak Bhugol ki Rooprekha*, Rastogi Publications, Meerut
12. Singh, R L & Dutta, P K (2012) *Prayogatmak Bhugol*, Central Book Depot, Allahabad

Objectives

- 1 To know the methodological issues of practical geography
- 2 To know drawing of graphs, diagrams maps and toposheet interpretation with minute detail
- 3 To know different type of state

Outcome

To understand specialist bodies of knowledge in surveying and geospatial science. students will develop cartography skills and will be able to create maps of their own.

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Human Geography
Core-3
Full marks Theory- 50, Tutorial 50 (5+1 credits)

1. Human Geography- Definition, Nature and scope. Major themes, Contemporary relevance, Man and Nature relationship.
2. Space and society – cultural regions, Race, religion, language of the world.
3. Settlements- concept of rural and urban settlement. Types and pattern of rural settlements, classification of urban settlements.
4. Population, Resources and environment, Trends and pattern of world urbanization.

Tutorial

Reading List

1. Chandna, R.C. (2010) Population Geography, Kalyani Publisher.
2. Hassan, M.I. (2005) Population Geography, Rawat Publications, Jaipur
3. Daniel, P.A. and Hopkinson, M.F. (1989) The Geography of Settlement, Oliver & Boyd, London.
4. Johnston R; Gregory D, Pratt G. et al. (2008) The Dictionary of Human Geography, Blackwell Publication.
5. Jordan-Bychkov et al. (2006) The Human Mosaic: A Thematic Introduction to Cultural Geography. W. H. Freeman and Company, New York.
6. Kaushik, S.D. (2010) Manav Bhugol, Rastogi Publication, Meerut.
7. Maurya, S.D. (2012) Manav Bhugol, Sharda Pustak Bhawan. Allahabad.
8. Hussain, Majid (2012) Manav Bhugol. Rawat Publications, Jaipur

Objective

- 1 Students will be introduced to demographic ,social and cultural attributes,such race,religion social relation and cultural identity
- 2 To underline that human activities are subject to adaption and change
- 3 To introduce students to the systematics study of patterns and process that have shaped human understanding use and alternation of earth surface

Outcome

Providing students with academic expertise in the human geographic academic and research field

1. National Resource- Definition, meaning and concept, classification and techniques, Impact of Resource utilisation.
2. Distribution and utilization of land resources and water resources.
3. Distribution and utilization of forest and energy resources.
4. Management and conservation of natural resources, sustainable resource development.

Practical

- A- Practical record in pencil
- a. Diagrammatic data presentation of simple bar, compound bar, pie diagram Triangular graph.
 - b. Thematic maps- Dot, proportional circles, sphere, square.
 - c. Choropleth, isopleths, climograph, composites, index.

Reading List d- *practical record and viva*

1. Cutter S. N., Renwick H. L. and Renwick W., 1991: *Exploitation, Conservation, Preservation: A Geographical Perspective on Natural Resources Use*, John Wiley and Sons, New York.
2. 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.
3. Holechek J. L. C., Richard A., Fisher J. T. and Valdez R., 2003: *Natural Resources: Ecology, Economics and Policy*, Prentice Hall, New Jersey.
4. Jones G. and Hollier G., 1997: *Resources, Society and Environmental Management*, Paul Chapman, London.
5. Klee G., 1991: *Conservation of Natural Resources*, Prentice Hall, Englewood.
6. Mather A. S. and Chapman K., 1995: *Environmental Resources*, John Wiley and Sons, New York.
7. Mitchell B., 1997: *Resource and Environmental Management*, Longman Harlow, England.
8. Owen S. and Owen P. L., 1991: *Environment, Resources and Conservation*, Cambridge University Press, New York.
9. Rees J., 1990: *Natural Resources: Allocation, Economics and Policy*, Routledge. London.

Objectives

Students will learn how human, physical and environmental components of the world interact.
Students will be introduced to demographic, social and cultural attributes such as migration,
Social relations and cultural identity

Outcome

Students will be able to synthesize geographic knowledge and apply innovative research strategies to solve problems in resource conservation, environmental change and sustainable development within the community, region and world.

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Climatology
Core-5
Full mark, Theory-50 practical 50 (4 +2 credits)

1. Atmosphere structure and composition. Insolation and Temperature- Factors and distribution, Heat Budget.
2. Atmospheric pressure and winds- planetary winds, Forces affecting winds. General circulation, Jet streams.
3. Atmospheric moisture- Evaporation, Humidity, condensation precipitation Types, stability and Instability .
4. Cyclones- Tropical cyclones, Extra Tropical cyclones Monsoon- Origin and mechanism

Reading List

1. Barry R. G. and Carleton A. M., 2001: *Synoptic and Dynamic Climatology*, Routledge, UK.
2. Barry R. G. and Corley R. J., 1998: *Atmosphere, Weather and Climate*, Routledge, New York.
3. Critchfield H. J., 1987: *General Climatology*, Prentice-Hall of India, New Delhi
4. Lutgens F. K., Tarbuck E. J. and Tasa D., 2009: *The Atmosphere: An Introduction to Meteorology*, Prentice-Hall, Englewood Cliffs, New Jersey.
5. Oliver J. E. and Hidore J. J., 2002: *Climatology: An Atmospheric Science*, Pearson Education, New Delhi.
6. Trewartha G. T. and Horne L. H., 1980: *An Introduction to Climate*, McGraw-Hill.
7. Gupta L S (2000): *Jalvayu Vigyan*, Hindi Madhyam Karyanvay Nidishalya, Delhi Vishwa Vidhyalaya, Delhi
8. Lal, D S (2006): *Jalvayu Vigyan*, Prayag Pustak Bhavan, Allahabad
9. Vatal, M (1986): *Bhautik Bhugol*, Central Book Depot, Allahabad
10. Singh, S (2009): *Jalvayu Vigyan*, Prayag Pustak Bhawan, Allahabad

Practical - A practical record with pencil

1. Drawing and use of weather instruments - Six Maximum minimum thermometer, Aneroid barometer, Rain gauge.
2. Interpretation of weather map.
3. Drawing of climograph, weathergraph.
4. Practical record and viva - ~~100 marks~~

Objective

- 1 As it is the science of climate which study physical state of atmosphere strictly meteorological it will enables the students to understand the effects of global climate change in our biosphere.
- 2 To study the atmosphere and its closely related phenomena
- 3 To promote a better understanding of the processes and interaction's within the atmosphere and between the atmosphere and the earth's surface

Outcome

After studying this students will be able to understand the physical basis of the natural, climate effect of climate change and atmospheric features.

Statistical Methods in Geography

CORE 6

Full mark, Theory-50 practical 50 (4 +2 credits)

1. Use of Data in Geography- significance of statistical methods in geography. Sources and types of data. Scales of measurement (Nominal, Ordinal, Interval, Ratio)
2. Tabulation and Descriptive statistics, Deciles and quartiles Frequency, cross tabulation, Histogram, Frequency curve and ogive curve.
3. Central Tendency (Mean, Median, Mode)
Dispersion (Standard deviation, Mean deviation, co-efficient of variation).
4. Sampling – purposive, Random, systematic and stratified, product moment correlation, Rank correlation.

Practical : A Practical Record

- a. Drawing of Histogram, Frequency ~~curve~~ ^{curve} and ogive
- b. Calculation of Mean, Median ~~am~~ and mode and standard deviation of grouped and ungrouped data
- c. Calculation and interpretation of product moment correlation and Rank correlation, Lorenze curve.
- d. Practical record and viva

Reading List

1. Berry B. J. L. and Marble D. F. (eds.): *Spatial Analysis – A Reader in Geography*.
2. Ebdon D., 1977: *Statistics in Geography: A Practical Approach*.
3. Hammond P. and McCullagh P. S., 1978: *Quantitative Techniques in Geography: An Introduction*, Oxford University Press.
4. King L. S., 1969: *Statistical Analysis in Geography*, Prentice-Hall.
5. Mahmood A., 1977: *Statistical Methods in Geographical Studies*, Concept.
6. Pal S. K., 1998: *Statistics for Geoscientists*, Tata McGraw Hill, New Delhi.
7. Sarkar, A. (2013) *Quantitative geography: techniques and presentations*. Orient Black Swan Private Ltd., New Delhi
8. Silk J., 1979: *Statistical Concepts in Geography*, Allen and Unwin, London.
9. Spiegel M. R.: *Statistics, Schaum's Outline Series*.
10. Yeates M., 1974: *An Introduction to Quantitative Analysis in Human Geography*, McGraw Hill, New York.
11. Shinha, Indira (2007) *Sankhyiki bhugol*. Discovery Publishing House, New Delhi

Objective

- 1 Application of applied mathematics, concerned with science subject like geography
- 2 To know the art of collection, presentation, description, inference, significance testing and prediction of numerical information.
- 3 Representation of statistical data in a conventionalized geometric form

Outcome

Students shall be able to use and apply a wide variety of specific statistical methods. They can demonstrate proficiency in analyzing data using various methods.

Geography of India

CORE-7

Theory : 50, Tutorial : 50 (5+1 Credits)

1. Physical setting – location, physiography, drainage, vegetation, climate (characteristics and classification)
2. Population-density and distribution, growth since 1901. Trends of urbanization. Population problems.
3. Agriculture-distribution of Rice, Wheat, Tea, Minerals-Distribution of iron ore, coal, petroleum.
4. Distribution of cotton textile industries, iron and steel industries, Industrial regions. Transportation-roads and railways.

Tutorial

Reading List

1. Deshpande C. D., 1992: *India: A Regional Interpretation*, ICSSR, New Delhi.
2. Johnson, B. L. C., ed. 2001. *Geographical Dictionary of India*. Vision Books, New Delhi.
3. Mandal R. B. (ed.), 1990: *Patterns of Regional Geography – An International Perspective. Vol. 3 – Indian Perspective*.
4. Sdyasuk Galina and P Sengupta (1967): *Economic Regionalisation of India*, Census of India
5. Sharma, T. C. 2003: *India - Economic and Commercial Geography*. Vikas Publ., New Delhi.
6. Singh R. L., 1971: *India: A Regional Geography*, National Geographical Society of India.
7. Singh, Jagdish 2003: *India - A Comprehensive & Systematic Geography*, Gyanodaya Prakashan, Gorakhpur.
8. Spate O. H. K. and Learmonth A. T. A., 1967: *India and Pakistan: A General and Regional Geography*, Methuen.
9. Tirtha, Ranjit 2002: *Geography of India*, Rawat Publs., Jaipur & New Delhi.
10. Pathak, C. R. 2003: *Spatial Structure and Processes of Development in India*. Regional Science Assoc., Kolkata.
11. Tiwari, R.C. (2007) *Geography of India*. Prayag Pustak Bhawan, Allahabad
12. Sharma, T.C. (2013) *Economic Geography of India*. Rawat Publication, Jaipur

Objective

- 1 To find detailed information about geography of india
- 2 To study the geographical locations of india such as rivers, Mountain ranges, Mountain peaks, soil, vegetation

Outcome

The students will be able to know the geographical history of formation of landforms to know the current geography of india.

Economic Geography
Core-8

Full mark- Theory-50 Tutorial -50 (5+1 credits)

1. Economic Geography- Definition, Nature and scope, concept and classification of economic activities.
2. Agriculture- Types of Agriculture, Factors influencing agriculture. Theory of von-Thunen
Forest- Types, characteristics and distribution, Fishing- world distribution of Fishing grounds .
3. Minerals- world distribution of iron ore, coal, petroleum
Industry- World distribution of cotton textile and iron and steel industries Factors influencing location of industries, Weber Theory.
4. Transportation- Types and modes of transport. Relative importance of mode of transport, Importance of Co-ordination of transports system.

Tutorial

Reading List

1. Alexander J. W., 1963: *Economic Geography*, Prentice-Hall Inc., Englewood Cliffs, New Jersey.
2. Coe N. M., Kelly P. F. and Yeung H. W., 2007: *Economic Geography: A Contemporary Introduction*, Wiley-Blackwell.
3. Hodder B. W. and Lee Roger, 1974: *Economic Geography*, Taylor and Francis.
4. Combes P., Mayer T. and Thisse J. F., 2008: *Economic Geography: The Integration of Regions and Nations*, Princeton University Press.
5. Wheeler J. O., 1998: *Economic Geography*, Wiley..
6. Durand L., 1961: *Economic Geography*, Crowell.
7. Bagchi-Sen S. and Smith H. L., 2006: *Economic Geography: Past, Present and Future*, Taylor and Francis.
8. Willington D. E., 2008: *Economic Geography*, Husband Press.
9. Clark, Gordon L.; Feldman, M.P. and Gertler, M.S., eds. 2000: *The Oxford*

Objective

- 1 To study the drastic change of economic scenario throughout the world
- 2 To study the changes of the conduct of human with spatial analysis
- 3 To deals specifically with the various theories in economic geography
- 4 To deals with the patterns of human activities throughout the world and the operation of development agriculture, industry and trade.

Outcome

Students will be familiarized with economic processes such as globalization, trade and transportation and their impacts on economic, cultural and social activities.

(2)

Environmental Geography
Core-9

Full mark- Theory 50, Tutorial 50 (5 +1 credits)

1. Environmental Geography – Definition concept and approaches. Meaning and concept of environment, environmental controls. Law of Tolerance.
2. Ecosystem- Structure of ecosystem, Energy flow in the ecosystem, Food chain, Food web, ecological pyramid, Fitness, of the environment and men's place in the ecosystem.
3. Environmental pollution- causes and remedies Air- pollution, water pollution, Soil pollution, noise pollution.
4. Environmental programmes and policies in developed and developing countries. New environmental policy of India.

Tutorial

Reading List

1. Chandna R. C., 2002: *Environmental Geography*, Kalyani, Ludhiana.
2. Cunningham W. P. and Cunningham M. A., 2004: *Principals of Environmental Science: Inquiry and Applications*, Tata Macgraw Hill, New Delhi.
3. Goudie A., 2001: *The Nature of the Environment*, Blackwell, Oxford.
4. Singh, R.B. (Eds.) (2009) *Biogeography and Biodiversity*. Rawat Publication, Jaipur
5. Miller G. T., 2004: *Environmental Science: Working with the Earth*, Thomson BrooksCole, Singapore.
6. MoEF, 2006: *National Environmental Policy-2006*, Ministry of Environment and Forests, Government of India.
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. Odum, E. P. et al, 2005: *Fundamentals of Ecology*, Cengage Learning India.
9. Singh S., 1997: *Environmental Geography*, Prayag Pustak Bhawan. Allahabad.
10. UNEP, 2007: *Global Environment Outlook: GEO4: Environment For Development*, United Nations Environment Programme.
11. Singh, M., Singh, R.B. and Hassan, M.I. (Eds.) (2014) *Climate change and biodiversity: Proceedings of IGU Rohtak Conference, Volume 1*. Advances in Geographical and Environmental Studies, Springer
12. Singh, R.B. (1998) *Ecological Techniques and Approaches to Vulnerable Environment*, New Delhi, Oxford & IBH Pub..
13. Singh, Savindra 2001. *Paryavaran Bhugol*, Prayag Pustak Bhawan, Allahabad. (in Hindi)

Objective

- 1 To study the dynamic relationship between living organism and their physical, biological, environmental.
- 2 To study the sum of external conditions affecting the life, develop and survival of an organism
- 3 To study the interaction of climate, soil topography, and other plants and animals in any given area.
- 4 increasing human population and impact of its activities on natural resources.

Outcome

To develop awareness among students towards the environment and the issues, questions and problems related to environment and development.

Research Methodology
Core-10

Fullmark- Theory -50 practical 50 (4+2 credits)

1. Field work in Geographical studies – Role, value, Data and ethics of Field work, Defining the field and identifying the case study Rural/ urban/ physical/ Human/ environmental.
2. Field Techniques:- selection of appropriate techniques. Merits and demerits observation, (participant/ non participants) Questionnaires (open/ closed/ structured/ Non structured interview , Group discussion, space survey.
3. Use of Field Tools:- collection of materials for physical and socio economic surveys.
4. Designing the Field Report:- Aims and objective methodology, Analysis, Interpretation and writing the report.

Practical

Preparation of Report

1. Preparation of the report based on primary and secondary data.
2. There should be field work to collect the data through questionnaire.
3. The report should have figures, tables, photographs, maps, references and appendices
4. Repost and viva.

Reading List

1. Creswell J., 1994: *Research Design: Qualitative and Quantitative Approaches* Sage Publications.
2. Dikshit, R. D. 2003. *The Art and Science of Geography: Integrated Readings*. Prentice-Hall of India, New Delhi.
3. Evans M., 1988: "Participant Observation: The Researcher as Research Tool" in *Qualitative Methods in Human Geography*, eds. J. Eyles and D. Smith, Polity.
4. Mukherjee, Neela 1993. *Participatory Rural Appraisal: Methodology and Application*. Concept Pubs. Co., New Delhi.
5. Mukherjee, Neela 2002. *Participatory Learning and Action: with 100 Field Methods*. Concept Pubs. Co., New Delhi
6. Robinson A., 1998: "*Thinking Straight and Writing That Way*", in *Writing Empirical Research Reports: A Basic Guide for Students of the Social and Behavioural Sciences*, eds. by F. Pryczak and R. Bruce Pryczak, Publishing: Los Angeles.
7. Special Issue on "Doing Fieldwork" *The Geographical Review* 91:1-2 (2001).
8. Stoddard R. H., 1982: *Field Techniques and Research Methods in Geography*, Kendall/Hunt.
10. Wolcott, H. 1995. *The Art of Fieldwork*. Alta Mira Press, Walnut Creek, CA.

Objective

- 1 To discover facts by scientific study and critical investigation systematic manner.
- 2 Students will have a fairly good knowledge of research methods.
- 3 To provide information to solve managerial problems by conducting a field survey

Outcome

Formulating research aims and objectives in an appropriate manner.

(30)

Regional Planning and Development
Core-II

Fill mark- Theory 50, Tutorial-50 (5+1 credits)

1. Definition and concept of Region, Regional planning sectoral planning, environmental planning and planning region.
2. Regionalisation - Criteria for delineation of planning regions (Formal and ^{functional} ~~functional~~), hierarchical concept. choice of indicators, composite Index method.
3. Growth pole and growth centre approaches. micro level and multilevel planning, Five year plans- A review.
4. Comprehensive Area Development- Hill Area Development Programme Integrated Rural Development programme, Drought Area Development Programme.

Tutorial

Reading List

1. Blij H. J. De, 1971: *Geography: Regions and Concepts*, John Wiley and Sons.
2. Claval P.I, 1998: *An Introduction to Regional Geography*, Blackwell Publishers, Oxford and Massachusetts.
3. Friedmann J. and Alonso W. (1975): *Regional Policy - Readings in Theory and Applications*, MIT Press, Massachusetts.
4. Gore C. G., 1984: *Regions in Question: Space, Development Theory and Regional Policy*, Methuen, London.
5. Gore C. G., Köhler G., Reich U-P. and Ziesemer T., 1996: *Questioning Development; Essays on the Theory, Policies and Practice of Development Intervention*, Metropolis- Verlag, Marburg.
6. Haynes J., 2008: *Development Studies*, Polity Short Introduction Series.
7. Johnson E. A. J., 1970: *The Organization of Space in Developing Countries*, MIT Press, Massachusetts.
8. Peet R., 1999: *Theories of Development*, The Guilford Press, New York.
9. UNDP 2001-04: *Human Development Report*, Oxford University Press.
10. World Bank 2001-05: *World Development Report*, Oxford University Press, New

Objectives

- 1 To know the existing pattern of activity within a region
- 2 To know various regional theories and theories of internal structures of regions
- 3 To know the difference between regions

Outcome

Students will know the efficient placement of land use activities infrastructure and settlement growth across a larger area of land.

Fullmark- Theory50, practical 50 (4+2 credits)

1. Tourism- Definition, Nature and scope, Basic components Elements, Interrelationship of Tourism, Recreation and leisure. Factors affecting Tourism.
2. Types of Tourism- Nature Tourism. Cultural Tourism Marketing concept- Tourist product, Tourist marketing, special feature of tourist marketing.
3. Information technologies in Tourism – computers in Air lines, Reservation system, hotels and railways, Recent trends of Tourism.
4. Impact of Tourism- Economy, environment, society. Tourism Industry.

Practical- A practical record in pencil

- a. Location of different Tourist places- in the maps of Odisha and India
- b. Diagrammatic representation of bar and pie diagrams based on the data on accommodation and Tourist arrival.
- c. Field study report on a tourist spot
- d. Practical record and viva.

Reading List

1. Dhar, P.N. (2006) International Tourism: Emerging Challenges and Future Prospects. Kanishka, New Delhi.
2. Hall, M. and Stephen, P. (2006) Geography of Tourism and Recreation – Environment, Place and Space, Routledge, London.
3. Kamra, K. K. and Chand, M. (2007) Basics of Tourism: Theory, Operation and Practise, Kanishka Publishers, Pune.
4. Page, S. J. (2011) Tourism Management: An Introduction, Butterworth-Heinemann- USA. Chapter 2.
5. Raj, R. and Nigel, D. (2007) Morpeth Religious Tourism and Pilgrimage Festivals Management: An International perspective by, CABI, Cambridge, USA, www.cabi.org.
6. Tourism Recreation and Research Journal, Center for Tourism Research and Development, Lucknow
7. Singh Jagbir (2014) "Eco-Tourism" Published by - I.K. International Pvt. Ltd. S-25, Green Park Extension, Uphaar Cinema Market, New Delhi, India (www.ikbooks.com).

Objective

- 1 To study travel and tourism as an industry and as a social and cultural activity
- 2 It studies the relationship between places, landscapes, and people, describing travels and tourism

Outcome

Focuses on spatial and temporal dynamics as well as the interactions between the tourism resources

Evolution of geographical thought

Core-13

Full marks- Theory-50, Tutorial-50

1. Geography- Definition, Nature and relation with other discipline, A discipline of synthesis, Paradigms
2. Premodern thoughts- Thoughts of Herodotus, Strabo, Ancient Indian Thought, Al Beruni, Modern Thoughts,- Thoughts of Alexander Von Humboldt, Vidal- dela- Blache
3. Debates and trends- Determinism vrs Possibilism, Systematic vrs Regional, Quantitative Revolution in Geography
4. Modern Themes: Positivism, Idealism, Behaviouralism, Radicalism.

Tutorial

Reading List

1. Arentsen M., Stam R. and Thuijjs R., 2000: *Post-modern Approaches to Space*, ebook.
2. Bhat, L.S. (2009) *Geography in India (Selected Themes)*. Pearson
3. Bonnett A., 2008: *What is Geography?* Sage.
4. Dikshit R. D., 1997: *Geographical Thought: A Contextual History of Ideas*, Prentice- Hall India.
5. Hartshorne R., 1959: *Perspectives of Nature of Geography*, Rand MacNally and Co.
6. Holt-Jensen A., 2011: *Geography: History and Its Concepts: A Students Guide*, SAGE.
7. Johnston R. J., (Ed.): *Dictionary of Human Geography*, Routledge.
8. Johnston R. J., 1997: *Geography and Geographers, Anglo-American Human Geography since 1945*, Arnold, London.
9. Kapur A., 2001: *Indian Geography Voice of Concern*, Concept Publications.
10. Martin Geoffrey J., 2005: *All Possible Worlds: A History of Geographical Ideas*, Oxford.
11. Soja, Edward 1989. *Post-modern Geographies*, Verso, London. Reprinted 1997: Rawat Publ., Jaipur and New Delhi.

Core 14

Geography of Odisha

Full marks- Theory-50, Tutorial-50

1. Physical setting- Location, Physiography, Drainage Vegetation, climate.
2. Agriculture- Distribution and production of Rice, Pulses and Oilseeds, Agricultural Problems and Prospects.
3. Minerals- Distribution of Iron Ore, bauxite, Coal, Industry- Iron and Steel, Aluminium.
4. Population- Growth of Populayion since 1901, Density and Distribution
Transportation- Roads, Railways.

Reading List-

1. Sinha B.N. -Geography of Odisha
2. Roy G.C.- Geography of Odisha

Practical- A Record in Pencil

Survey:-

1. Introduction and types, Chain and tape Survey
2. Plane table Survey
3. Prismatic Compass Survey
4. Practical Record and Viva.

Objective

- 1 To study the physiography of Odisha in details
- 2 To study physical features like soil, vegetation, climate, mineral resource, transport and its demography

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Geography of India

~~GENERIC~~ GENERIC - 2

Theory : 50, Tutorial : 50 (5+1 Credits)

1. Physical setting – location, physiography, drainage, vegetation, climate (characteristics and classification)
2. Population-density and distribution, growth since 1901. Trends of urbanization. Population problems.
3. Agriculture-distribution of Rice, Wheat, Tea, Minerals-Distribution of iron ore, coal, petroleum.
4. Distribution of cotton textile industries, iron and steel industries, Industrial regions. Transportation-roads and railways.

Tutorial

Reading List

1. Deshpande C. D., 1992: *India: A Regional Interpretation*, ICSSR, New Delhi.
2. Johnson, B. L. C., ed. 2001. *Geographical Dictionary of India*. Vision Books, New Delhi.
3. Mandal R. B. (ed.), 1990: *Patterns of Regional Geography – An International Perspective. Vol. 3 – Indian Perspective*.
4. Sdyasuk Galina and P Sengupta (1967): *Economic Regionalisation of India*, Census of India
5. Sharma, T. C. 2003: *India - Economic and Commercial Geography*. Vikas Publ., New Delhi.
6. Singh R. L., 1971: *India: A Regional Geography*, National Geographical Society of India.
7. Singh, Jagdish 2003: *India - A Comprehensive & Systematic Geography*, Gyanodaya Prakashan, Gorakhpur.
8. Spate O. H. K. and Learmonth A. T. A., 1967: *India and Pakistan: A General and Regional Geography*, Methuen.
9. Tirtha, Ranjit 2002: *Geography of India*, Rawat Publs., Jaipur & New Delhi.
10. Pathak, C. R. 2003: *Spatial Structure and Processes of Development in India*. Regional Science Assoc., Kolkata.
11. Tiwari, R.C. (2007) *Geography of India*. Prayag Pustak Bhawan, Allahabad
12. Sharma, T.C. (2013) *Economic Geography of India*. Rawat Publication, Jaipur

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Physical Geography

GENERIC - 1

Theory : 50, Tutorial : 50, (5+1 Credits)

1. Physical Geography-Definition, Nature and Scope. Components of the earth system-Interior of the earth, Rocks-Classification and characteristics.
2. Atmosphere-structure and composition of the atmosphere, heat balance, global circulation system, tropical cyclones.
3. Geomorphic processes-weathering, mass wasting, fluvial cycle of erosion.
4. Hydrosphere – Hydrological cycle, bottom relief of oceans salinity ocean currents of pacific, Indian and Atlantic Ocean.

Tutorial

Reading List

1. Conserva H. T., 2004: Illustrated Dictionary of Physical Geography, Author House, USA.
2. Gabler R. E., Petersen J. F. and Trapasso, L. M., 2007: Essentials of Physical Geography (8th Edition), Thompson, Brooks/Cole, USA.
3. Garrett N., 2000: Advanced Geography, Oxford University Press.
4. Goudie, A., 1984: The Nature of the Environment: An Advanced Physical Geography, Basil Blackwell Publishers, Oxford.
5. Hamblin, W. K., 1995: Earth's Dynamic System, Prentice Hall, N.J.
6. Husain M., 2002: Fundamentals of Physical Geography, Rawat Publications, Jaipur.
7. Monkhouse, F. J. 2009: Principles of Physical Geography, Platinum Publishers, Kolkata.
8. Strahler A. N. and Strahler A. H., 2008: Modern Physical Geography, John Wiley & Sons, New York.

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Theory:50, Practical: 50 (4+2 credits)

1. Human Geography-definition, nature and scope contemporary relevance. Man and nature relationship.
2. Space and society-cultural regions, race, religion language.
3. Population-world population growth. Density and distribution of world population. Population problems, demographic transition theory.
4. Settlements-concept of rural and urban settlement. Types and pattern of rural settlements. Functional classification of towns. Trends of urbanization.

Practical

A Practical record in pencil

1. Construction of plain and diagonal scale.
2. Graphical construction of
 - (a) Simple cylindrical projection
 - (b) Polar Zenithal Projection
 - (c) Conical Projection with one standard parallel.
3. Construction of profiles from toposheet simple, composite, projected, superimposed.
4. *Interpretation of Toposheet.*
Practical record and viva.

Reading List

1. Chandna, R.C. (2010) Population Geography, Kalyani Publisher.
2. Daniel, P.A. and Hopkinson, M.F. (1989) The Geography of Settlement, Oliver & Boyd, London.
3. Johnston R; Gregory D, Pratt G. et al. (2008) The Dictionary of Human Geography, Blackwell Publication.
4. Jordan-Bychkov et al. (2006) The Human Mosaic: A Thematic Introduction to Cultural Geography. W. H. Freeman and Company, New York.
5. Kaushik, S.D. (2010) Manav Bhugol, Rastogi Publication, Meerut.
6. Maurya, S.D. (2012) Manav Bhugol, Sharda Pustak Bhawan. Allahabad.
7. Ghosh, S. (2015) Introduction to settlement geography. Orient Black Swan Private Ltd., Kolkata
8. Hussain, Majid (2012) Manav Bhugol. Rawat Publications, Jaipur

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GENERIC - 4

Full mark- Theory 50, Tutorial 50 (5 +1 credits)

1. Environmental Geography – Definition concept and approaches. Meaning and concept of environment environment controls. Law of Tolerance.
2. Ecosystem- Structure of ecosystem, Energy flow in the ecosystem, Food chain, Food web, ecological pyramid, Fitness, of the environment and men's place in the ecosystem.
3. Environmental pollution- causes and remedies Air- pollution, water pollution, Soil pollution, noise pollution.
4. Environmental programmes and policies in developed and developing countries. New environmental policy of India.

Tutorial

Reading List

1. Chandna R. C., 2002: *Environmental Geography*, Kalyani, Ludhiana.
2. Cunningham W. P. and Cunningham M. A., 2004: *Principals of Environmental Science: Inquiry and Applications*, Tata Macgraw Hill, New Delhi.
3. Goudie A., 2001: *The Nature of the Environment*, Blackwell, Oxford.
4. Singh, R.B. (Eds.) (2009) *Biogeography and Biodiversity*. Rawat Publication, Jaipur
5. Miller G. T., 2004: *Environmental Science: Working with the Earth*, Thomson BrooksCole, Singapore.
6. MoEF, 2006: *National Environmental Policy-2006*, Ministry of Environment and Forests, Government of India.
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. Odum, E. P. et al, 2005: *Fundamentals of Ecology*, Ceneage Learning India.
9. Singh S., 1997: *Environmental Geography*, Prayag Pustak Bhawan. Allahabad.
10. UNEP, 2007: *Global Environment Outlook: GEO4: Environment For Development*, United Nations Environment Programme.
11. Singh, M., Singh, R.B. and Hassan, M.I. (Eds.) (2014) *Climate change and biodiversity: Proceedings of IGU Rohtak Conference, Volume 1*. Advances in Geographical and Environmental Studies, Springer
12. Singh, R.B. (1998) *Ecological Techniques and Approaches to Vulnerable Environment*, New Delhi, Oxford & IBH Pub..
13. Singh, Sayindra 2001. *Paryavaran Bhugol*, Prayag Pustak Bhawan, Allahabad. (in Hindi)

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Discipline Specific Elective-1

Population Geography

Full Marks Theory- 50, Tutorial- 50 (5+1 Credits)

1. Population Geography- Definition, Nature and Scope, Sources of Population data in India. (Census, Vital Statistics, Nss)
2. Density and Distribution of World Population, Factors affecting density and distribution of Population. (Physical, Socio-Cultural and demographic)
3. Population Change- Fertility, Mortality, Migration. Theory of Demographic Transition.
4. Growth of World Population, Population problems, Trends and Patterns of Urbanisation.

Tutorial

Reading List

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

Objective

- 1 Focuses on the characteristics of population distribution that changes in a spatial context
- 2 Study about the demographic process of fertility, mortality, and migration
- 3 Students will have a general understanding of global human population patterns, factors influencing the distribution and mobility of human population

Outcome

It focuses the study of the ways in which spatial variations in the distribution, composition, migration and growth of population are related to the nature of places

Discipline Specific Elective-2

Urban Geography

Full Marks Theory- 50, Tutorial- 50 (5+1 Credits)

1. Urban Geography- - Definition, Nature and Scope, Urban Morphology, History of Urbanisation
2. Trends and Pattern of Urbanisation in developed and Developing Countries, Christaller Theory
3. Functional Classification of Cities- Quantitative and Qualitative Methods. Umland.
4. Urban Issues: Problems of housing , Slums, Civic Amenities (Water and transport only), Case study of NCR (National Capital Region)

Tutorial

Reading List

1. Fyfe N. R. and Kenny J. T., 2005: *The Urban Geography Reader*, Routledge.
2. Graham S. and Marvin S., 2001: *Splintering Urbanism: Networked Infrastructures, Technological Mobilities and the Urban Condition*, Routledge.
3. Hall T., 2006: *Urban Geography*, Taylor and Francis.
4. Kaplan D. H., Wheeler J. O. and Holloway S. R., 2008: *Urban Geography*, John Wiley.
5. Knox P. L. and McCarthy L., 2005: *Urbanization: An Introduction to Urban Geography*, Pearson Prentice Hall New York.
6. Knox P. L. and Pinch S., 2006: *Urban Social Geography: An Introduction*, Prentice-Hall.
7. Pacione M., 2009: *Urban Geography: A Global Perspective*, Taylor and Francis.
8. Sassen S., 2001: *The Global City: New York, London and Tokyo*, Princeton University Press.
9. Ramachandran R (1989): *Urbanisation and Urban Systems of India*, Oxford University Press, New Delhi
10. Ramachandran, R., 1992: *The Study of Urbanisation*, Oxford University Press, Delhi
11. Singh, R.B. (Eds.) (2001) *Urban Sustainability in the Context of Global Change*, Science Pub., Inc., Enfield (NH), USA and Oxford & IBH Pub., New Delhi.
12. Singh, R.B. (Ed.) (2015) *Urban development, challenges, risks and resilience in Asian megacities. Advances in Geographical and Environmental Studies*, Springer

Objective

- 1 Aims to examine the key social,cultural ,economic and political dynamics that structure Urban life
- 2 It will provide students with a grounding in the key intellectual tradition upon which contemporary urban geography is built

Outcome

Focuses on global and local perspectives on cities and to acquire knowledge of understand and criticize key paradigms and approaches in urban geography.

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Discipline SPECIFIC ELECTIVE -3

. Political Geography -

Full mark. Theory 50, Tutorial - 50

1. Introduction: Concepts, Nature and Scope. ,
State, Nation and Nation State – Concept of Nation and State, Attributes of State – Frontiers, Boundaries, Shape, Size, Territory and Sovereignty, Concept of Nation State; Geopolitics; Theories (Heartland and Rimland) **Theory**
2. Electoral Geography – Geography of Voting, Geographic Influences on Voting pattern, Geography of Representation, ...
3. Political Geography of Resource Conflicts – Water Sharing Disputes, Disputes and Conflicts Related to Forest Rights and Minerals.
4. Politics of Displacement: Issues of relief, compensation and rehabilitation: with reference to Dams and Special Economic Zones

Tutorial

Reading List

1. Agnew J., 2002: *Making Political Geography*, Arnold.
2. Agnew J., Mitchell K. and Toal G., 2003: *A Companion to Political Geography*, Blackwell.
3. Cox K. R., Low M. and Robinson J., 2008: *The Sage Handbook of Political Geography*, Sage Publications.
4. Cox K., 2002: *Political Geography: Territory, State and Society*, Wiley-Blackwell
5. Gallaher C., et al, 2009: *Key Concepts in Political Geography*, Sage Publications.
6. Glassner M., 1993: *Political Geography*, Wiley.
7. Jones M., 2004: *An Introduction to Political Geography: Space, Place and Politics*, Routledge .
8. Mathur H M and M M Cernea (eds.) Development, Displacement and Resettlement – Focus on Asian Experience, Vikas, Delhi
9. Painter J. and Jeffrey A., 2009: *Political Geography*, Sage Publications.
10. Taylor P. and Flint C., 2000: *Political Geography*, Pearson Education.
11. Verma M K (2004): Development, Displacement and Resettlement, Rawat Publications, Delhi
12. Hodder Dick, Sarah J Llyod and Keith S McLachlan (1998), *Land Locked States of Africa and Asia* (vo.2), Frank Cass

Arnold
8.12.16

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Discipline Specific Elective- **4**

Oceanography

Full Marks Theory- 50, Tutorial- 50 (5+1 Credits)

1. Bottom Relief: Hypsographic Curve, Bottom relief of Pacific, Atlantic and Indian Ocean
2. Movements of ocean water- Ocean currents of Pacific, Atlantic and Indian Ocean, salinity
3. Coral reef- Types, Origin (Darwin and Daly), Distribution, Ocean deposits
4. Man and Marine Resources:- Types (Biotic and Minerals), Marine Pollution- Causes and remedies.

Tutorial

Reading List

1. Andrew. D. ward and Stanley, Trimble (2004): Environmental Hydrology, 2nd edition, Lewis Publishers, CRC Press.
2. Karanth, K.R., 1988 : Ground Water: Exploration, Assessment and Development, Tata- McGraw Hill, New Delhi.
3. Ramaswamy, C. (1985): Review of floods in India during the past 75 years: A Perspective. Indian National Science Academy, New Delhi.
4. Rao, K.L., 1982 : India's Water Wealth 2nd edition, Orient Longman, Delhi,.
5. Singh, Vijay P. (1995): Environmental Hydrology. Kluwar Academic Publications, The Netherlands.
6. Anikouchine W. A. and Sternberg R. W., 1973: *The World Oceans: An Introduction to Oceanography*, Prentice-Hall.
7. Garrison T., 1998: *Oceanography*, Wordsworth Company, Belmont.
8. Kershaw S., 2000: *Oceanography: An Earth Science Perspective*, Stanley Thornes, UK.
9. Pinet P. R., 2008: *Invitation to Oceanography* (Fifth Edition), Jones and Barlett Publishers, USA, UK and Canada.
10. Sharma R. C. and Vatal M., 1980: *Oceanography for Geographers*, Chaitanya Publishing House, Allahabad.
11. Sverdrup K. A. and Armbrust, E. V., 2008: *An Introduction to the World Ocean*, McGraw Hill, Boston.
12. Singh, M., Singh, R.B. and Hassan, M.I. (Eds.) (2014) Landscape ecology and water management. Proceedings of IGU Rohtak Conference, Volume 2. Advances in Geographical and Environmental Studies, Springer

Objective

- 1 is to reveal the unity of political activity and geographical factors of social development

Outcome

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SEC I

4. Research Methods

Full mark - Theory 50, Tutorial 50

1. Geographic Enquiry: Definition and Ethics; Framing Research Questions, Objectives and Hypothesis; Literature Review; Preparing Sample Questionnaire
2. Data Collection: Type and Sources of Data; Methods of Collection; Input and Editing
3. Data Analysis: Qualitative Data Analysis; Quantitative Data Analysis; Data Representation Techniques
4. Structure of a Research Report: Preliminaries; Text; References, Bibliography and Citations; Abstract
Preparation of Research Report
Tutorial

Reading List

1. Creswell J., 1994: *Research Design: Qualitative and Quantitative Approaches* Sage Publications.
2. Dikshit, R. D. 2003. *The Art and Science of Geography: Integrated Readings*. Prentice-Hall of India, New Delhi.
3. Evans M., 1988: "Participant Observation: The Researcher as Research Tool" in *Qualitative Methods in Human Geography*, eds. J. Eyles and D. Smith, Polity.
4. Misra, R.P. (2002) *Research Methodology*, Concept Publications, New Delhi.
5. Mukherjee, Neela 1993. *Participatory Rural Appraisal: Methodology and Application*. Concept Pubs. Co., New Delhi.
6. Mukherjee, Neela 2002. *Participatory Learning and Action: with 100 Field Methods*. Concept Pubs. Co., New Delhi
7. Robinson A., 1998: "Thinking Straight and Writing That Way", in *Writing Empirical Research Reports: A Basic Guide for Students of the Social and Behavioural Sciences*, eds. by F. Pryczak and R. Bruce Pryczak, Publishing: Los Angeles.
8. Special Issue on "Doing Fieldwork" *The Geographical Review* 91:1-2 (2001).
9. Stoddard R. H., 1982: *Field Techniques and Research Methods in Geography*, Kendall/Hunt.
11. Wolcott, H. 1995. *The Art of Fieldwork*. Alta Mira Press, Walnut Creek, CA.
12. Yadav, H. (2013) *Shodh Pravidhi Evam Matratamak Bhugol*, Raja Publications, Delhi.

Mark 8.12.10

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PASS COURSES AT A GLANCE
SUBJECT: GEOGRAPHY

DISCIPLINE SPECIFIC CORE-4 PAPERS

Number	Semester	Title of the Course	Credit	
			Theory	Prac/Tuto
DSC-P- -1	1 st	Physical Geography	5	1
DSC-P- -2	2 nd	Human Geography	4	2
DSC-P- -3	3 rd	Geography of India	5	1
DSC-P- -4	4 th	Environmental Geography	4	2

DISCIPLINE SPECIFIC ELECTIVE-2 PAPERS

Number	Semester	Title of the Course	Credit	
			Theory	Prac/Tuto
DSE-P- -1	5 th	Economic Geography	5	1
DSE-P- -2	6 th	Tourism	4	2

GENERIC ELECTIVE (2 PAPERS)

Number	Semester	Title of the Course	Credit	
			Theory	Prac/Tuto
GE- -1	5 th	Physical Geography	5	1
GE- -2	6 th	Geography of India	5	1

SKIL ENHANCEMENT COURSES-LIST-A (Any 1 paper)

Number	Semester	Title of the Course	Credit	
			Theory	
SEC- -1	3 rd /4 th /5 th	Research Methods	5	1
SEC- -2	3 rd /4 th /5 th			

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B.A. PASS GEOGRAPHY**Physical Geography****CORE-1****Theory : 50, Tutorial : 50, (5+1 Credits)**

1. Physical Geography-Definition, Nature and Scope. Components of the earth system-Interior of the earth, Rocks-Classification and characteristics.
2. Atmosphere-structure and composition of the atmosphere, heat balance, global circulation system, tropical cyclones.
3. Geomorphic processes-weathering, mass wasting, fluvial cycle of erosion.
4. Hydrosphere – Hydrological cycle, bottom relief of oceans salinity ocean currents of pacific, Indian and Atlantic Ocean.

Tutorial**Reading List**

1. Conserva H. T., 2004: Illustrated Dictionary of Physical Geography, Author House, USA.
2. Gabler R. E., Petersen J. F. and Trapasso, L. M., 2007: Essentials of Physical Geography (8th Edition), Thompson, Brooks/Cole, USA.
3. Garrett N., 2000: Advanced Geography, Oxford University Press.
4. Goudie, A., 1984: The Nature of the Environment: An Advanced Physical Geography, Basil Blackwell Publishers, Oxford.
5. Hamblin, W. K., 1995: Earth's Dynamic System, Prentice Hall, N.J.
6. Husain M., 2002: Fundamentals of Physical Geography, Rawat Publications, Jaipur.
7. Monkhouse, F. J. 2009: Principles of Physical Geography, Platinum Publishers, Kolkata.
8. Strahler A. N. and Strahler A. H., 2008: Modern Physical Geography, John Wiley & Sons, New York.

Theory:50, Practical: 50 (4+2 credits)

1. Human Geography-definition, nature and scope contemporary relevance. Man and nature relationship.
2. Space and society-cultural regions, race, religion language.
3. Population-world population growth. Density and distribution of world population. Population problems, demographic transition theory.
4. Settlements-concept of rural and urban settlement. Types and pattern of rural settlements. Functional classification of towns. Trends of urbanization.

Practical

A Practical record in pencil

1. Construction of plain and diagonal scale.
2. Graphical construction of
 - (a) Simple cylindrical projection
 - (b) Polar Zenithal Projection
 - (c) Conical Projection with one standard parallel.
3. Construction of profiles from toposheet simple, composite, projected, superimposed.
Interpretation of Toposheet.
4. Practical record and viva.

Reading List

1. Chandna, R.C. (2010) Population Geography, Kalyani Publisher.
2. Daniel, P.A. and Hopkinson, M.F. (1989) The Geography of Settlement, Oliver & Boyd, London.
3. Johnston R; Gregory D, Pratt G. et al. (2008) The Dictionary of Human Geography, Blackwell Publication.
4. Jordan-Bychkov et al. (2006) The Human Mosaic: A Thematic Introduction to Cultural Geography. W. H. Freeman and Company, New York.
5. Kaushik, S.D. (2010) Manav Bhugol, Rastogi Publication, Meerut.
6. Maurya, S.D. (2012) Manav Bhugol, Sharda Pustak Bhawan. Allahabad.
7. Ghosh, S. (2015) Introduction to settlement geography. Orient Black Swan Private Ltd., Kolkata
8. Hussain, Majid (2012) Manav Bhugol. Rawat Publications, Jaipur

Geography of India

CORE-3

Theory : 50, Tutorial : 50 (5+1 Credits)

1. Physical setting – location, physiography, drainage, vegetation, climate (characteristics and classification)
2. Population-density and distribution, growth since 1901. Trends of urbanization. Population problems.
3. Agriculture-distribution of Rice, Wheat, Tea, Minerals-Distribution of iron ore, coal, petroleum.
4. Distribution of cotton textile industries, iron and steel industries, Industrial regions. Transportation-roads and railways.

Tutorial

Reading List

1. Deshpande C. D., 1992: *India: A Regional Interpretation*, ICSSR, New Delhi.
2. Johnson, B. L. C., ed. 2001. *Geographical Dictionary of India*. Vision Books, New Delhi.
3. Mandal R. B. (ed.), 1990: *Patterns of Regional Geography – An International Perspective. Vol. 3 – Indian Perspective*.
4. Sdyasuk Galina and P Sengupta (1967): *Economic Regionalisation of India*, Census of India
5. Sharma, T. C. 2003: *India - Economic and Commercial Geography*. Vikas Publ., New Delhi.
6. Singh R. L., 1971: *India: A Regional Geography*, National Geographical Society of India.
7. Singh, Jagdish 2003: *India - A Comprehensive & Systematic Geography*, Gyanodaya Prakashan, Gorakhpur.
8. Spate O. H. K. and Learmonth A. T. A., 1967: *India and Pakistan: A General and Regional Geography*, Methuen.
9. Tirtha, Ranjit 2002: *Geography of India*, Rawat Publs., Jaipur & New Delhi.
10. Pathak, C. R. 2003: *Spatial Structure and Processes of Development in India*. Regional Science Assoc., Kolkata.
11. Tiwari, R.C. (2007) *Geography of India*. Prayag Pustak Bhawan, Allahabad
12. Sharma, T.C. (2013) *Economic Geography of India*. Rawat Publication, Jaipur

1. Environmental Geography- Definition, concept and approaches. Meaning and concept of environment. Man and environment relationship.
2. Ecosystem-structure of ecosystem. Energy flow in the ecosystem. Fitness of the environment and man's place in the ecosystem.
3. Environmental pollution-causes and remedies-Air pollution, water pollution, soil and noise pollution.
4. Environmental programmes and policies of developed and developing countries. New govt. policies of India.

Practical

A Practical record in pencil

1. Diagrammatic data presentation-simple bar, compound bar, pie diagram.
2. Thematic maps-Dot, proportionate circle, sphere, square.
3. Choropleth, isopleth, elimography.
4. Practical record and viva.

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)

B.A. PASS GEOGRAPHY

Physical Geography

GENERIC - 1

Theory : 50, Tutorial : 50, (5+1 Credits)

1. Physical Geography-Definition, Nature and Scope. Components of the earth system-Interior of the earth, Rocks-Classification and characteristics.
2. Atmosphere-structure and composition of the atmosphere, heat balance, global circulation system, tropical cyclones.
3. Geomorphic processes-weathering, mass wasting, fluvial cycle of erosion.
4. Hydrosphere – Hydrological cycle, bottom relief of oceans salinity ocean currents of pacific, Indian and Atlantic Ocean.

Tutorial

Reading List

1. Conserva H. T., 2004: Illustrated Dictionary of Physical Geography, Author House, USA.
2. Gabler R. E., Petersen J. F. and Trapasso, L. M., 2007: Essentials of Physical Geography (8th Edition), Thompson, Brooks/Cole, USA.
3. Garrett N., 2000: Advanced Geography, Oxford University Press.
4. Goudie, A., 1984: The Nature of the Environment: An Advanced Physical Geography, Basil Blackwell Publishers, Oxford.
5. Hamblin, W. K., 1995: Earth's Dynamic System, Prentice Hall, N.J.
6. Husain M., 2002: Fundamentals of Physical Geography, Rawat Publications, Jaipur.
7. Monkhouse, F. J. 2009: Principles of Physical Geography, Platinum Publishers, Kolkata.
8. Strahler A. N. and Strahler A. H., 2008: Modern Physical Geography, John Wiley & Sons, New York.

Geography of India

~~GENERIC~~ GENERIC - 2

Theory : 50, Tutorial : 50 (5+1 Credits)

1. Physical setting – location, physiography, drainage, vegetation, climate (characteristics and classification)
2. Population-density and distribution, growth since 1901. Trends of urbanization. Population problems.
3. Agriculture-distribution of Rice, Wheat, Tea, Minerals-Distribution of iron ore, coal, petroleum.
4. Distribution of cotton textile industries, iron and steel industries, Industrial regions. Transportation-roads and railways.

Tutorial

Reading List

1. Deshpande C. D., 1992: *India: A Regional Interpretation*, ICSSR, New Delhi.
2. Johnson, B. L. C., ed. 2001. *Geographical Dictionary of India*. Vision Books, New Delhi.
3. Mandal R. B. (ed.), 1990: *Patterns of Regional Geography – An International Perspective. Vol. 3 – Indian Perspective*.
4. Sdyasuk Galina and P Sengupta (1967): *Economic Regionalisation of India*, Census of India
5. Sharma, T. C. 2003: *India - Economic and Commercial Geography*. Vikas Publ., New Delhi.
6. Singh R. L., 1971: *India: A Regional Geography*, National Geographical Society of India.
7. Singh, Jagdish 2003: *India - A Comprehensive & Systematic Geography*, Gyanodaya Prakashan, Gorakhpur.
8. Spate O. H. K. and Learmonth A. T. A., 1967: *India and Pakistan: A General and Regional Geography*, Methuen.
9. Tirtha, Ranjit 2002: *Geography of India*, Rawat Publs., Jaipur & New Delhi.
10. Pathak, C. R. 2003: *Spatial Structure and Processes of Development in India*. Regional Science Assoc., Kolkata.
11. Tiwari, R.C. (2007) *Geography of India*. Prayag Pustak Bhawan, Allahabad
12. Sharma, T.C. (2013) *Economic Geography of India*. Rawat Publication, Jaipur

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DISCIPLINE SPECIFIC ELECTIVE I
Economic Geography

Full mark- Theory-50 Tutorial -50 (5+1 credits)

1. Economic Geography- Definition, Nature and scope, concept and classification of economic activities.
2. Agriculture- Types of Agriculture, Factors influencing agriculture. Theory of von-Thunen
Forest- Types, characteristics and distribution Fishing- world distribution of Fishing grounds.
3. Minerals- world distribution of iron ore, coal, petroleum
Industry- World distribution of cotton textile and iron and steel industries Factors influencing location of industries weber Theory.
4. Transportation- Types and modes of transport. Relative importance of mode of transport. Importance of Co-ordination of transports system.

Tutorial

Reading List

1. Alexander J. W.; 1963: *Economic Geography*, Prentice-Hall Inc., Englewood Cliffs, New Jersey.
2. Coe N. M., Kelly P. F. and Yeung H. W., 2007: *Economic Geography: A Contemporary Introduction*, Wiley-Blackwell.
3. Hodder B. W. and Lee Roger, 1974: *Economic Geography*, Taylor and Francis.
4. Combes P., Mayer T. and Thisse J. F., 2008: *Economic Geography: The Integration of Regions and Nations*, Princeton University Press.
5. Wheeler J. O., 1998: *Economic Geography*, Wiley..
6. Durand L., 1961: *Economic Geography*, Crowell.
7. Bagchi-Sen S. and Smith H. L., 2006: *Economic Geography: Past, Present and Future*, Taylor and Francis.
8. Willington D. E., 2008: *Economic Geography*, Husband Press.
9. Clark, Gordon L.; Feldman, M.P. and Gertler, M.S., eds. 2000: *The Oxford*

Anvi

Fullmark- Theory 50, practical 50 (4+2 credits)

1. Tourism- Definition, Nature and scope, Basic components Elements, Interrelationship of Tourism, Recreation and leisure. Factors affecting Tourism.
2. Types of Tourism- Nature Tourism. Cultural Tourism Marketing concept- Tourist product, Tourist marketing, special feature of tourist marketing.
3. Information technologies in Tourism – computers in Air lines, Reservation system, hotels and railways, Recent trends of Tourism.
4. Impact of Tourism- Economy, environment, society. Tourism Industry.

Practical- A practical record in pencil

- a. Location of different Tourist places- in the maps of Odisha and India
- b. Diagrammatic representation of bar and pie diagrams based on the data on accommodation and Tourist arrival.
- c. Field study report on a tourist spot
- d. Practical record and viva.

Reading List

1. Dhar, P.N. (2006) International Tourism: Emerging Challenges and Future Prospects. Kanishka, New Delhi.
2. Hall, M. and Stephen, P. (2006) Geography of Tourism and Recreation – Environment, Place and Space, Routledge, London.
3. Kamra, K. K. and Chand, M. (2007) Basics of Tourism: Theory, Operation and Practise, Kanishka Publishers, Pune.
4. Page, S. J. (2011) Tourism Management: An Introduction, Butterworth-Heinemann-USA. Chapter 2.
5. Raj, R. and Nigel, D. (2007) Morpeth Religious Tourism and Pilgrimage Festivals Management: An International perspective by, CABI, Cambridge, USA, www.cabi.org.
6. Tourism Recreation and Research Journal, Center for Tourism Research and Development, Lucknow
7. Singh Jagbir (2014) "Eco-Tourism" Published by - I.K. International Pvt. Ltd. S-25, Green Park Extension, Uphaar Cinema Market, New Delhi, India (www.ikbooks.com).

SEC I

4. Research Methods

1. Geographic Enquiry: Definition and Ethics; Framing Research Questions, Objectives and Hypothesis; Literature Review; Preparing Sample Questionnaire
 2. Data Collection: Type and Sources of Data; Methods of Collection; Input and Editing
 3. Data Analysis: Qualitative Data Analysis; Quantitative Data Analysis; Data Representation Techniques
 4. Structure of a Research Report: Preliminaries; Text; References, Bibliography and Citations; Abstract
- Preparation of Research Report

Tutorial

Reading List

1. Creswell J., 1994: *Research Design: Qualitative and Quantitative Approaches* Sage Publications.
2. Dikshit, R. D. 2003. *The Art and Science of Geography: Integrated Readings*. Prentice-Hall of India, New Delhi.
3. Evans M., 1988: "Participant Observation: The Researcher as Research Tool" in *Qualitative Methods in Human Geography*, eds. J. Eyles and D. Smith, Polity.
4. Misra, R.P. (2002) *Research Methodology*, Concept Publications, New Delhi.
5. Mukherjee, Neela 1993. *Participatory Rural Appraisal: Methodology and Application*. Concept Pubs. Co., New Delhi.
6. Mukherjee, Neela 2002. *Participatory Learning and Action: with 100 Field Methods*. Concept Pubs. Co., New Delhi
7. Robinson A., 1998: "Thinking Straight and Writing That Way", in *Writing Empirical Research Reports: A Basic Guide for Students of the Social and Behavioural Sciences*, eds. by F. Pryczak and R. Bruce Pryczak, Publishing: Los Angeles.
8. Special Issue on "Doing Fieldwork" *The Geographical Review* 91:1-2 (2001).
9. Stoddard R. H., 1982: *Field Techniques and Research Methods in Geography*, Kendall/Hunt.
11. Wolcott, H. 1995. *The Art of Fieldwork*. Alta Mira Press, Walnut Creek, CA.
12. Yadav, H. (2013) *Shodh Pravidhi Evam Matratamak Bhugol*, Raja Publications, Delhi.