

GUJARAT UNIVERSITY

Syllabus for B.A. Geography: 2017 - 18

SEMESTER I

Core and Elective-101: Physical Geography: Lithosphere

Unit- I: Introduction to the Earth as a member of the Solar System , Internal structure of the Earth, Earth's crust, Distribution of land and waterbodies : The Continental Drift Theory and Plate Tectonics

Unit-II: Rocks- their types and modes of occurrence, Earth movements, Folds, Faults and associated landforms.

Unit-III: Earthquakes and volcanoes ,causes, effects and their world distribution.

Unit-IV: Denudation,Weathering - types ,features, Erosion, work of Rivers, Glaciers, Wind, Sea Waves, and Groundwater.

Suggested Readings :

- 1 Lake, P(1985) : Physical Geography (Indian edition)
MacMillan & Co. , Calcutta, Mumbai, London.
- 2 Lal, D.S. :Physical Geography , Sharda Pustak Bhavan , Allahabad
- 3 Monkhouse F.J. : Principles of Physical Geography
- 4 Strahler and Strahler : Modern Physical Geography, John Willey & Sons, Canada
- 5 Singh, Savinder (1997) : Physical Geography, Prayag Pustak Mahal, Allahabad
- 6 Shah, M.R. Bhautik Bhugol, Uni.Granth Nirman Board
- 7 Shah, M.R. Bhuruprachana Shastra Uni.Granth Nirman Board
- 8 Shah, M.R. Bhutakshan Uni.Granth Nirman Board

Core and Elective-102: Geography of Gujarat- I (Physical & Resources)

Unit-I: Location and physiographic divisions: Location, area, neighbouring States, Country, Major physiographic divisions: the Gujarat plains, the Saurashtra plateau, Katchchh the Coastal low land, the Eastern hilly area, geological base in brief.

Unit-II: Drainage pattern: Major rivers and other water bodies, Climate : monsoon phenomena over Gujarat, seasons, factors affecting climate,
Natural vegetation – Types, distribution

Unit-III: Types and distribution of minerals, coal, oil & natural gas resources, nonmetallic and non-fuel resources – Limestone, Fluorspar, Metallic resources

Unit-IV: Soil – water and natural vegetation resources – nature, characteristics, types and distribution.

Suggested Readings :

1. Dikshit, K.R. ,Geography of Gujarat National book trust , new delhi
2. Dave, Manjula Gujaratni Pradeshik Ane Arthik Bhugol, University Granth Nirman Board, Ahmedabad
3. Kothari, Nitin: Aadhunik Bharatni Bhugol, Parshwa Publication, Ahmedabad
4. Census of India : Gujarat Nakshama, University Granth Nirman Board, Ahmedabad
5. Gujarat Vishwakosh Trust : Gujarat (in Gujarati) Gujarat Vishwakosh Trust , Ahmedabad
6. Census of India : Gujarat Part- II – A&B General census table.
7. Bureau of Economics and Statistics(1965) : Handbook of Basic Statistics, Government of Gujarat
8. Directorate of Information: Government of Gujarat
9. Directorate of Agriculture: Ahmedabad Statistics of Principal Crops in Gujarat state

Elective(EC-II)-101 : Lithospheric Hazards

Unit-I: Introduction to Lithosphere : origin, structure, processes, and formation and nature, characteristics and extent; Distinction between Hazard and Disaster

Unit-II: Lithospheric hazards : Introduction , types, characteristics, intensity and impact ; Landslides, avalanches, causes, distribution and impact

Unit-III: Earthquakes, Volcanoes and Tsunamis – types, causes, distribution and environmental and socio-economic impacts

Unit-IV: Recent lithospheric hazards of the world, basics of Disaster Management

Suggested Readings :

1. Shah, M.R.: Bhautik Bhugol ,Uni. Granth Nirman Board
2. Shukla, Rajesh Rashmi(2009): Bhautik Bhugol (Hindi) Arjun publication house
3. Ram Suresh and Yadav P.G. (1998): Bhautik Bhugol , Uni.Granth Nirman Board
4. Chopra, Girish(2006): Physical Geography Commonwealth Publication
5. Jamwal, Anil K. (2008): Elements of Physical Geography, Gnanda Prakashan
6. Jamwal, Anil K.and Salpekar Aradhana(2010): Management of Major Disaster, Gnanda Prakashan

SEMESTER II

Core and Elective-111: Climatology and Oceanography

Unit- I: Atmosphere: Composition and structure, elements and factors of climate, types, distribution and factors influencing of insolation, temperature, pressure and winds

Unit-II: Elements of climate: temperature humidity, types of clouds, precipitation – forms, types of rainfall

Unit-III: Ocean relief, distribution of temperature, salinity and density of ocean water.

Unit-IV: Circulation of oceanic waters, waves, tides and major ocean currents, Oceans as resources.

Suggested Readings:

1. Garrison, T.(1998) : Oceanography, Wadsworth.com USA.
2. Grald, S (1980) : General Oceanography–An Introduction, John Wiley & sons, New York
3. Stringer, E.T.(1982): Foundation of Climatology , Surjeet Publication, Delhi
4. Mather, J.R. (1974) : Climetology, MacGraw Hill, New York.
5. Trewartha,G.T (1980) An Introduction to Climate, International Students Edition MacGraw Hill, New York
6. Singh, Savindra(2007) : Climatology , Prayag Pustak Bhavan , Allahabad
7. Lake, P(1985) : Physical Geography (Indian edition) MacMillan & co. Calcutta, Mumbai,Landon.
8. Lal, D.S. : Physical Geography , Sharda Pustak Bhavan , Allahabad
9. Monkhouse F.J. : Principles of Physical geography.
10. Strahler and Strahler : Modren Physical Geography, John Wiley & sons, Canada.
11. Singh, Savinder (1997) : Physical Geography, Prayag Pustak Bhavan, Allahabad
12. Shah, M.R. : Bhautik Bhugol, Uni.Granth Nirman Board

Core and Elective-112: Geography of Gujarat- II
(Economic activities, population and development)

Unit-I: Agriculture : Crop regions – food crop, cash crop, fruit crop, agricultural development, problems and prospects, livestock rearing its contribution to economic development

Unit-II: Energy & Industry : power plants : Hydel, thermal, atomic units, Non – Conventional energy sources , wind , solar and bio-gas, Industrial regions and development, Cement, Petro-chemicals, textiles, dairy

Unit-III: Transport & Trade -Transport network-pattern and density- road,rail,airways and ports , Trade - local, regional, national and international.

Unit-IV: Population – distribution, density, Demographic characteristics, urban, rural and tribal population,their distribution and problems related to Urbanization and industrialization

Suggested Readings:

1. Dikshit, K.R. : Geography of Gujarat, National Book Trust , New Delhi
2. Dave, Manjula : Gujaratni Pradeshik Ane Arthik Bhugol, University Granth Nirman Board, Ahmedabad
3. Kothari, Nitin : Aadhunik Bharatni Bhugol Parshwa Publication, Ahmedabad
4. Census of India : Gujarat Nakshama, University Granth Nirman Board, Ahmedabad
5. Gujarat Vishwakosh Trust : Gujarat (in Gujarati)
6. Census of India: Gujarat part- II – A&B General Census Table.
7. Bureau of Economics and Statistics(1965) : Handbook of Basic Statistics, Government of Gujarat
8. Directorate of information: Government of Gujarat, Ahmedabad , Gujarat
9. Directorate of Agriculture: Ahmedabad Statistics of Principal Crops in Gujarat State

Elective (EC-II) -111: Atmospheric Hazards

Unit-I: Introduction to Atmosphere: Meaning, Scope and Significance, types, characteristics, intensity and impact of Atmospheric hazards

Unit-II: Tropical cyclones, temperate cyclones and Tornado -origin, development and their distribution and impact

Unit-III: Thunderstorms, Lightening, Cold waves and Hot waves- their origin, characteristics, distribution and impact

Unit-IV: Flood and Drought as extremes of regional atmospheric condition, their causes, consequences, distribution and impact

Suggested Readings:

1. Berry, R.G.and R.J.Chorly,(1976) Atmosphere, Weather and Climate Methuene, London
2. Trewartha, G.T. : An Introduction to Climate MacGraw Hill, New York
3. Lal, D.S. (2009) : Climatology, Sharda Pustak Bhavan Allahbad
4. Singh, Savindra(2005) : Climatology ,Prayag Pustak Bhavan Allahbad

SEMESTER III

S Y B A

CORE AND ELECTIVE: 201 – HUMAN GEOGRAPHY

Course Content:

UNIT- I: Nature and scope of Human Geography, Branches of Human Geography, Concept of man and environment relationship: Determinism and Possibilism

UNIT-II : Early economic activities of mankind, food gathering, hunting, fishing, pastoral, shifting and sedentary agriculture. Division of mankind based on physical and social characteristics, spatial distribution.

UNIT-III : Human adaptation to environment: (i) Cold region - Eskimo, Lapps (ii) Hot region - Bushman and Beduin, (iii) Plateau – Gonds, Masai, (iv) Mountain – Gujjars and Bakarwal

UNIT-IV : World population distribution, population density, factors of distribution and density, migration, factors and types of migration.

Suggested readings:

1. Bergwan, Edward, E: Human Geography: Culture, Connections and landscape, Prentice-Hall, New Jersey, 1995.
2. Carr, M: New Patterns: Process and Change in Human Geography, Nelson, 1997.
3. Fellman, J.L.: Human Geography- Landscape of Human Activities, Brown and Benchman publications. USA, 1997.
4. Jhonston, R.J.(Ed): Dictionary of Human Geography, Blackwell, Oxford, 1994.
5. McBride, B.j.: Human Geography systems, patterns, and change, Nelson, U.K. and Canada, 1996.
6. Singh, K.N.: People of India- An Introduction, Seagull Books, 1992.
7. Majid Hussain , Human Geography , Ravat Publication , Delhi , 2009

CORE AND ELECTIVE: 202 GEOGRAPHY OF INDIA - 1 (PHYSICAL)

Course Contents:

UNIT – 1

India : Location, size and shape, Geological structure in brief, Physiographic divisions of India, drainage pattern of India.

UNIT – 2

Climate of India: Origin of monsoon climate (thermal and recent concepts), Seasons, climatic regions of India (Koppen and Trewartha), major soils.

UNIT – 3

Types of natural vegetation of India: Minerals and energy resources, iron ore, manganese, bauxite, copper, zinc, lead, gypsum, fluorspar, mica and various clays; Coal, oil and natural gas, uranium and thorium

UNIT – 4

Aquatic resources, forest resources and animal resources and their conservation, Hydel power, Thermal power, Atomic power and Non-conventional power resources.

Suggested Readings:

1. Farmer B.H: (1983) An Introduction to South Asia, Methuen, London.
2. Government of India (2011), India year book, New Delhi.
3. Government of India (1999), National School Atlas, Natmo, Kolkata.
4. Singh Gopal: A Geography of India, Atmaram & son's, Delhi.
5. Tiwari R. C: (2009) Geography of India, Prayg Pustak Bhandar, Allahabad.
6. Alka Gautam (2009), Geography of India, Sharda Publication, Allahabad.

Core – 203 Cartographic Methods – 1

Course Content: Theory & Practical

UNIT – I

Nature and scope of Cartography. Basic Principles of Cartography, Map and their types, tools of Map- making, Map design.

UNIT – II

Scale: Their use, methods of showing scale, construction of scale, conversion of scale, types of scale (Linear, Diagonal and Comparative). (Two exercise for each scale).

UNIT – III

Enlargement and reduction of map: Graphical method. (One exercises each for graphical method).

UNIT – IV

Cartograms: Representation of socio-economic and data by Bar-Graph (Simple & Compound), Line Graph, Square Graph, Sphere and Block Diagram, Pie Diagram.(One exercise each graphical method to be drawn on graph paper only).

Note:

1. Paper Core – 203 on Cartography-1 is both a Theory & a Practical paper. This paper will have 30 marks internal and 70 marks external examination with 30 marks written (Theory related) and 40 marks practical examination including journal assessment (05 marks) and viva-voce examination (05 marks)
2. Each one of the four units mentioned in syllabus has theoretical component and related practical sections.

3. Teaching workload should be of 4 lecture periods (55 minutes) per week for theory part and 4 practical periods (laboratory work) per week with each having the duration of 90 minutes.
4. Number of students in a batch for practical examination shall not be more than 15 under normal circumstances.
5. Students are required to keep a record of practical work in journal form, duly signed by the teacher-in-charge on all exercises and certified by Head of the department and Principal of the college.
6. Candidates who have not completed their journal work shall not be allowed to appear in the practical examination.
7. Separate passing in practical examination is necessary. Students have to obtain a minimum of 15 out of 40 marks of practical examination and 10 out of 30 marks related theory examination.

Suggested Readings:

1. Bygott, B: Map work and Practical Geography, University Tutorial press, London,1969.
2. Ishtiaq, M.C : A text book of Practical Geography, Heritage Publishers, New Delhi, 1989.
3. Raisz, Erwin.: Principles of Cartography, McGraw-Hill Book, New York, 1982. 4.Singh, R.L. : Elements of Practical Geography, Kalyani Publishing Co. , New Delhi, 1989.
4. Dikshit ,N.G. : Naksha Shatra, University Granth Nirman Board,Ahmedabad
5. Dalal, V.G.: Prayogik Bhoogol-1 & 2. University Granth Nirman Board,Ahmedabad

SEMESTER IV

S Y B A

CORE AND ELECTIVE: 211 BIO GEOGRAPHY

Course Content:

UNIT – I

Definition, scope and significance of Bio-Geography, Basic Ecological concepts and principles, Biosphere as Ecosystem, components of the Biosphere.

UNIT – II

Source of energy – Trophic levels, food chain and food webs, Ecological pyramids (number pyramids, biomass pyramids and energy pyramids) – flow of energy.

UNIT – III

Origin of fauna and flora; domestication of plants and animals and their dispersal agents, geographical distribution of plants in relation to soil, climate, distribution of animal life in relation to vegetation type and climate.

UNIT – IV

Ecological regions of Gujarat – Their characteristics, distribution, problems, conservation and management.

(1) Forest, (2) Wetland, (3) Desert, (4) Marine

Suggested Readings:

1. Odum, Eugene.P: Fundamentals of Ecology, W.B. Saunders Co. London, (1971).
2. Robinson, H: Bio-Geography, McDonald and Evans, London, (1982).
3. Singh Savinder, Environmental Geography, Prayag Pustak Bhavan, Allahabad,
4. Saxena H.M: Environmental Geography, Rawat Publication, Jaipur.

CORE AND ELECTIVE: 212 GEOGRAPHY OF INDIA – 2 (ECONOMIC ACTIVITIES, POPULATION)

Course Content:

UNIT -1

Agriculture: Major food crops (paddy, wheat, maize, jowar, bajra, pulses) cash crops: sugarcane, cotton, jute, tobacco, groundnut, tea, coffee, ideal soil and climatic conditions, major producing areas of India, Introduction to land use pattern in India

UNIT -2

Industrial development of India: Industrial policy and major industrial regions of India. Textile, engineering, chemical and petro chemical industries, sugar, cement industry

UNIT – 3

Mode of Transport: Roads, Railways, Air ways, Waterways of India. Their problems and development, foreign trade, composition and direction of trade

UNIT – 4

Population: Growth and density of population, types of migration – Internal and international migration, and population policies.

Suggested Readings:

1. Farmer B.H: (1983) An Introduction to South Asia, Methuen, London. 2. Government of India (2011), India year book, New Delhi.
2. Government of India (1999), National School Atlas, Natmo, Kolkata.
3. Singh Gopal: A Geography of India, Atmaram son's, Delhi.
4. Tiwari R. C: (2009) Geography of India, Prayg Pustak Bhandar, Allahabad.
5. Alka Gautam (2009), Geography of India, Sharda Publication, Allahabad.

CORE: 213 BASIC CARTOGRAPHY – 2
(Theory & Practical)

Course Content:

UNIT-I

Method of showing relief on the map: - Pictorial methods (Hachures, shading and layer tinting) and Quantitative methods (Bench-mark, Spot-height, Trig-point and contours).

UNIT -II

Representation of different land-forms by contours:- Gentle, Steep, Concave, Convex, Terrace, Water fall, Water rapid, U-shaped valley, V-shaped valley, Spur, Saddle/pass, Gorge, Volcanic crater hill, Plateau and Cliff – (Total 18 land-forms).

UNIT – III

Weather Maps and Charts:- Introduction of Weather instruments - Dry-Wet Thermometer, Celsius & Farenhite thermometer, Rain-gauge, Aneroid barometer, Hygrometer, Wind wane and Anemometer.

UNIT – IV

Interpretation of Indian Daily Weather Reports (IDWR) – (Two exercise).
Hyther-graph & Climo-graph – (Two exercise).

Note:

1. Paper Core – 203 on Cartography-1 is both a Theory & a Practical paper. This paper will have 30 marks internal and 70 marks external examination with 30 marks written (Theory related) and 40 marks practical examination including journal assessment (05 marks) and viva-voce examination (05 marks)
2. Each one of the four units mentioned in syllabus has theoretical component and related practical sections.
3. Teaching workload should be of 4 lecture periods (55 minutes) per week for theory part and 4 practical periods (laboratory work) per week with each having the duration of 90 minutes.
4. Number of students in a batch for practical examination shall not be more than 15

under normal circumstances.

5. Students are required to keep a record of practical work in journal form, duly signed by the teacher-in-charge on all exercises and certified by Head of the department and Principal of the college.
6. Candidates who have not completed their journal work shall not be allowed to appear in the practical examination.
7. Separate passing in practical examination is necessary. Students have to obtain a minimum of 15 out of 40 marks of practical examination and 10 out of 30 marks related theory examination.

Suggested Readings:

1. Bygott, B: Map work and Practical Geography, University tutorial press, London, 1969.
2. Ishtiaq, M.C : A text book of Practical Geography, Heritage Publishers, New Delhi, 1989
3. Raisz, Erwin.: Principles of Cartography, McGraw-Hill Book, New York, 1982.
4. Singh, R.L. : Elements of Practical Geography, Kalyani Publishing Co. , New Delhi, 1989.
5. Dikshit, N.G. : Naksha Shatra, University Granth Nirman Board , Ahmedabad
6. Dalal, V.G.: Prayogik Bhoogol-1 & 2. University Granth Nirman Board , Ahmedabad

SEMESTER V

PAPER NO - 301 ECONOMIC GEOGRAPHY

Course Contents

- Unit – I** Definition, nature, scope and recent trends of economic geography , Its relation with economics and allied subjects, fundamental concepts in economic geography.
- Unit – II** Sectors of Economic Activities, Concept of Primary, Secondary, Tertiary, Quaternary, Quinary Activities
- Primary activities (1) Fishing, Forest gathering and cattle herding.
(2) Agriculture – Types – Subsistence, Intensive , commercial, Mixed farming.
(3) Mining activities
 - Secondary activities :Definition and meaning of manufacturing – factors affecting its localization.
 - Tertiary activities :Definition salient Feature of transportation as a factor of regional connectivity.
- The impact of economic activities on environment.
- Unit – III** Socio – Economic base of the economic activities:
- 6 Man as a producer and consumer – Meaning and types of labour.
 - 7 Population – world distribution and density of population.
 - 8 Factors affecting localization of production :
Land, climate, raw material, power and water
- Unit – IV** Trade and transport : Geographical factors in their development, major water, land air transport routes, internal and international trade.

Suggested Readings:

1. Boesch, H. : A Geography of World Economy, D. Van Nostrand Co., New York, 1964.
2. Chapman, J.D. : Geography and Energy, Longman, London, 1989.
3. Gregor, H.F. : Geography of Agriculture, Prentice Hall, New Jersey, 1970.
4. Griggs, D.B. : The Agricultural Systems of the World, Cambridge University Press. New York, 1974.
5. Hartshorne, T.N. And Alexander, J.W. Economic Geography, Prentice Hall, New York, 1962.
6. Jones, C.F. And Darkenwald, C.G. : Economic Geography, McMillan Co., New York, 1975.
7. Millar, E. : Geography of Manufacturing, Prentice Hall, New York, 1962.
8. Raza , M. and Agrawal, Y. : Transport Geography of India, Concept, New Delhi, 1986.
9. Smith, D.M. : Industrial Location. – An Economic Geographical Analysis, John Wiley, New York, 1971.
10. Thomas, R.S. : The Geography of Economic Activities, McGraw Hill, New York, 1962.

PAPER NO -302 ENVIRONMENTAL GEOGRAPHY

Course Contents

- Unit – I** Nature, scope and fundamental concepts of Environmental geography,
3. Distinction among Environment, Ecology and Geography.
 4. Components of environment in Environmental geography
- Unit – II** Classification of environment: Natural and Human.
- 4 Man – Environment inter relations with respect to population size, types of economy and technology.
 - 5 Exploitation of natural resources and environmental hazards.
 - 6 Human impact on the natural environment.
- Unit – III** Environmental degradation: causes, types, distribution and consequences – Air, Water, Land and Noise pollution Concept of Environmental Management, Environmental impact assessment in brief
- Unit – IV** Emerging environmental issues – population explosion, food security, deforestation, global warming, conservation of biodiversity, sustainable development.
6. Environmental problems and planning in India.

Suggested Readings :

1. Agrawal, A. et. al : The Citizens Fifth Report, Centre for Science and Environment, New Delhi, 1999
2. Saxena, H.M. Environmental Geography, Rawat publication, Jaipur, 1999
3. Reid, D. Sustainable Development, Earthscan Publication, London, 1995
4. Sharma, H.S. : Ravine Erosion in India, Concept Publishing Company, New Delhi, 1980.
5. Sharma, H.S. and Chattopadhyay, S.K. : Sustainable Development : concepts and Issues, Concept, publication New Delhi, 2000.
6. Allen, J.L. : Student's Atlas of Environmental Issues, Dushkin Publication, 1997.
7. Brown, L.R. : In the Human Interest, East – West Press, New Delhi, 1976.
8. Cutter, L., Renwick, H.L. : Exploitation, Conservation and Preservation Geography Perspective and Natural Resources Use, Rowman and Allanheld, N.J. 1982.
9. Hagget, P. : Geography – A Modern Synthesis, Harper and Row Publishers, New York, 1975.
10. Simmons, I.G. : The Ecology of Natural resources, Edward Arnold, London, 1974.
11. Global Environment Outlook – Earth Scan, London, 2000.
12. UNESCO – Use and Conservation of the Biosphere, Paris, 1970.

PAPER NO -303 CULTURAL GEOGRAPHY

Course Contents

- Unit-I** Introduction: Nature and scope of Cultural Geography.
Cultural elements and components of culture.
Convergence and divergence processes.
- Unit-II** Cultural diversity: Base of cultural diversity – Race, religion and language.
Cultural diversity in the world. Cultural diversity and regionalization in India.
- Unit – III** Patterns of livelihood.
Various economic activities and cultural adaptations – Agriculture, Industrialization and modernization. Technological changes and their geographic implications.
- Unit – IV** Human settlements with relation to Ideology.
Social structure and technology. Pattern of Rural and Urban society Social process in the city.
The city in the developing countries.

Suggested Readings :

1. Broek, J.C. and Webb, J.W. A Geography of Mankind, McGraw Hill, New York, 1978.
2. Crang Mike : Cultural Geography, Routledge Publications, London, 1998.
3. Harmandorf : Tribes of India The struggle for Survival, Oxford University Press. Delhi 1989.
4. Hazia (Ed.) : Dimensions in Human Geography : Rawat Publications, Jaipur, 1997.
5. Hutchinson and Smith, D : Ethnicity, Oxford University Press, Oxford, 1996.
6. Jordon and Lester, G. : The Human Mosaic, Harper and Row, New York, 1979.
7. Massey, D. and Jess, P. : a Place in the World : Places Cultures and Globalization. Oxford University Press, New York, 1995.
8. Massey et.al. (ed.) : Human geography Today, Polity Press, Cambridge, 1999.
9. Mukherjee, A.B. and Aijazuddin, A. : India : culture, Society and Economy, Inter-India Publication, New Delhi, 1985.
10. Steve, P. & Michael, K. (ed.) : Places and the Politics of Industry, Routledge, London, 1993.
11. Schwartzberg, J.E. : Historical Atlas of South Asia, University of Chicago, 1978.
12. Singh, A. K. : Approaches to Tribal Development, Swarup and Sona, New Delhi, 1994.
13. Sopher, D.E. : Exploration of India : A geographical Perspectives on Society and Culture, Longman, London, 1980.

PAPER NO -304 AGRICULTURAL GEOGRAPHY

Course Contents

- Unit – I** Nature, scope and significance of agricultural geography. Approaches to the study of agricultural geography – commodity, environmental. Systematic and regional. Determinants of agricultural land-use. Physical. Social, economic and cultural.
- Unit – II** Agricultural Systems of the world : their characteristics, location and products
- Unit – III** Agricultural regionalization : Techniques and methodology, Agricultural regions of India and their characteristics
- Unit – IV** Indian Agriculture : Problems and prospects – Agricultural dynamics – green Revolution
Agriculture in Gujarat : Spatial dimensions of crop regions and cropping patterns.

Suggested Readings :

1. Alexander, J.W. Economic Geography, Prentice Hall, Inc. Englewood Cliffs, N.J. Latest edition.
2. Gregor. H.F. Geography of Agriculture – Themes in Research,, Prentice Hall Inc. London, 1970.
3. Grigg. D.B. : Agricultural Systems in the World : An Evolutionary Approach. Cambridge University Press, Cambridge, 1978.
4. Hussain. M. Agricultural Geography, Inter-India Publication, New Delhi, 1979.
5. Morgan, W.B. and Munton, R.J.C., Agricultural Geography, Methuen, London 1971.
6. Singh, J And Dhillon, S.S. : Agricultural Geography, Tata McGraw Hill Publishing Co., Limited, New Delhi, 1984.
7. Symons, L. : Agricultural Geography, G. Bell & Sons, London, 1964.
8. Tewari, P.S. (Ed.) : Contributions to Agricultural Geography, Heritage, Delhi, 1986.
9. Whittlesey, Derwent, S : “Major Agricultural Regions of the Earth”, Annals of the Association of American Geographers, Vol.26, 1936.

PAPER NO -305 CARTOGRAPHY PART – 3 (Theory and Practical)

Course Contents

- Unit-I** Study of Survey of India – Topographical maps, Classification and Scale.
- Interpretation of Survey of India(SOI) Toposheets (any two)
 - Drawing of cross profile: - Simple, Super-imposed, Composite and Projected profile and their relevance to Land-form mapping analysis.
- Unit – II** Types of cartographic symbols and their uses:– Point, Line, Area symbols
- Line Graph, Simple bar graph and Compound bar graph.
 - Dots, Choro -pleth, Proportional Circles, Squares, sphere, divided circle. Their merits and demerits and comparative study. (One exercise of each)
 - Use of symbols, letters and shades, use and importance of qualitative and quantitative maps.
- Unit – III** Basic principles of Surveying.
- Importance of surveying in geography.
 - Plane table survey, Chain survey and Prismatic compass survey – Only Theory.
- Unit – IV** Fundamentals of Aerial photographs and Remote Sensing.
- Computer cartography and Geographical Information System.

Note:

1. Paper -305 on Cartography-3 is both a Theory & a Practical paper. This paper will have 30 marks internal and 70 marks external examination with 30 marks written (Theory related) and 40 marks practical examination including journal assessment (10marks) and viva-voce examination (05 marks)
2. Each one of the four units mentioned in syllabus has theoretical component and related practical sections.
3. Teaching workload should be of 4 lecture periods (55 minutes) per week for theory part and 4 practical periods (laboratory work) per week with each having the duration of 90 minutes.
 - A Number of students in a batch for practical examination shall not be more than 15 under normal circumstances.
4. Students are required to keep a record of practical work in journal form, duly signed by the teacher-in-charge on all exercises and certified by Head of the department and Principal of the college.
5. Candidates who have not completed their journal work shall not be allowed to appear in the practical examination.
6. Separate passing in practical examination is necessary. Students have to obtain a minimum of 15 out of 40 marks of practical examination and 10 out of 30 marks related theory examination.

Suggested Readings:

1. Agarwal, C.S. and Garg, P.K. Remote sensing, A.H. Wheeler and co. Ltd. New Delhi. 2000
2. Bygott, B: Map work and Practical Geography, University tutorial press, London, 1969
3. Campbell, James, B. Introduction to remote sensing, 4th ed. Taylor & Francis, London . 2003
4. Dalal, V.G.: Prayogik Bhoogol-1 & 2. University Granth Nirman Board ,
Ahmedabad
5. Dickinson, G.C. Maps and air photographs , Arnolds, London, 1970
6. Dikshit, N.G. : Naksha Shatra, University Granthnirman Board , Ahmedabad
7. Heywood Ian, (.ed. al). An introduction to geographical information systems, Pearson education (singapore)
Pvt. Ltd. Delhi. 2003
8. Ishtiaq, M.C : A text book of Practical Geography, Heritage Publishers, New Delhi,
9. Lo C-P, Albert, K.W. Yeung Concepts and Techniques of geographical information Systems, Prentice Hall of
India Pvt.Ltd, New Delhi. 2004
10. Mishra R. P. and Ramesh, A. Fundamentals of Cartography, Concept, New Delhi. 1989
11. Raisz, Erwin.: Principles of Cartography, McGraw-Hill Book, New York, C 1989
12. Robinson, A.H. and others: Elements of Cartography, John Willey and Sons, New York.
13. Shah. Urmila, P. Reporting Research-Papers on research methodology, Rachana prakasan, Ahmedabad, 1977
14. Sharma, J. P. Prayogik bhoogol , Rashtogi Prakashan , Meerut
15. Singh, R. L. and Dutt, P. K. : Elements of Practical Geography, Kalyani Publishing Co. ,
New Delhi, 1989

PAPER:- 311 RESOURCE GEOGRAPHY

Course Contents

- Unit-I** Nature and Scope of Resource Geography, Approaches of the Study of Geography of Resources, Classification of Resources.
- Unit – II** Soil Resources:- Importance of Soil, Origin of soil ,soil profile, classification of soils, utilization of various type of soil and land use ,soil conservation.
- Unit – III** Water resources : inland water resources utilization by man, oceanic water resources and its main characteristics utilization of oceans for man.
- Unit – IV** Mineral resources: Meaning and types of mineral resources, metallic minerals : iron, manganese, chromite, copper, Bauxite . Non- Metallic minerals : salt, mica, sulphur, Gypsum

Suggested readings.

1. Allen,s.w. and leonard j. w., conserving natural resources, Mc graw Hill. 1966
2. Finch V.C., Trewartha G.T., Shearer M.H., TheEarth and its resources., 1959
3. Kunker, H.L., Zimmermens Introduction to world Resources, Harper Row. 1964
4. Jaekson, N. and Penn, P. Dictionary of Natural Resources and other principal uses. N.Y. 1966
5. Skinher, B.J., Earth Resources. 1969
6. Smith G.H. Conservation of Natural Resources N.Y. 1965,
7. Spengler, J.J., Natural Resources and Economic growth, U.S.A. 1961
8. Zimmermens, W.E., World Resources and Industries Harper & Row. 1951

PAPER NO -312 POLITICAL GEOGRAPHY

Course Contents

Unit – I Nature, scope and subject matter of Political Geography.

- Political geography and Geopolitics.
- Approaches to the study of political geography.
Recent trends in political geography

Unit – II Role of physical, demographic, economic, socio-cultural and historical factors in the emergence of states.

Unit – III State as a politico – territorial phenomenon:

- nature of location, size and shape in political geography of states;
- Boundaries and frontiers,

- Territorial sea and maritime boundaries, EEZ
- Functions and classification of International boundaries.

Unit – IV Global strategic views of Mackinder, Spykman, Ratzel and Mahan and their relevance to contemporary world situation.

- Geopolitical dimensions of environment.

Suggested readings.

1. Adhikari Sudepta: Political Geography, Rawat Publications, Jaipur, 1999.
2. Dikshit, R.D.: Political Geography :A Contemporary Perspective, Tata McGraw Hill Publication, New Delhi, 1982.
3. Pounds, N.T. Political Geography, Methuen & Co. London, 1972.
4. Short, J.R.: An Introduction to Political Geography, Routledge and Kegan Paul, London, 1982.
5. Taylor, P.J. (Ed) Political Geography of the 20th Century- A Global Analysis, New York, 1993.
6. Taylor, Peter: Political Geography, Longman, London, 1985

PAPER:- 313 TOURISM GEOGRAPHY

Course Contents

- Unit – I** Basic of tourism; Definition of tourism, Factors influencing tourism ; historical, natural, socio cultural and economic; leisure, recreation, elements of tourism, tourism as an industry.
- Unit – II** Geography of tourism: Seasonality in tourism, tourism types : cultural, eco-ethno-coastal , health tourism, pilgrimage, Adventure Tourism, concept of sustainable tourism.
- Unit – III** Impact of tourism: Physical, economic and social, positive and negative impacts; Environmental laws and tourism.
- Unit – IV** Indian tourism: regional dimensions of tourism attraction; evolution of tourism; promotion of Tourism. Prospects of tourism in Gujarat. UNESCO world heritage sites in India and Gujarat.

Suggested readings.

1. Bhatia,A.K. Tourism Development :Principles and Practices, Sterling Publishers, New Delhi,1996.
2. Chandra,R.H. Hill Tourism: Planning and Development, Kanishka Publishers, New Delhi,1998.
3. Hunter C and Green H: Tourism and the Environment: A Sustainable Relationship, Routledge, London, 1995.
4. Milton,D: Geography of world Tourism, Prentice Hall , New York ,1993.
5. Pearce,D.G: Tourism To-day: A Geographical Analysis,Harlow,Longman,1987.
6. Robinsion H. A.: Geography of Tourism, Macdonald and Evans,London,1996.
7. Sharma J. K.(Ed) Tourism Planning and Development- A New Perspective, Kanishka Publishers, New Delhi,2000
8. Shaw G and Williams ,A.M. Critical Issues in Tourism- A Geographical Perspective, Oxford, Blackwell,1994.
9. Sinha,P.C.(Ed) Tourism Impact Assessment, Anmol Publishers, New Delhi, 1998.
10. Williams Stephen: Tourism Geography, Rout ledge, Contemporary Human Geography,London,1998.

PAPER NO -314 RURAL SETTLEMENT GEOGRAPHY

Course Contents

- Unit – I** Settlement; Meaning, origin and types, Settlements Geography: Nature, Scope, relevance . development of settlements geography. Approaches to Rural settlements geography. Concept of Settlements Geography
- Unit – II** Types of rural settlements: Dispersed and Agglomerated , World Distribution of Village, Rural Morphology, General Morphology of An Indian Villages.
- Unit – III** Size and spacing of rural settlements: size of rural settlements , village size in India, Concept of spacing of rural settlements, spacing of settlements in India.
- Unit – IV** Cultural elements of rural settlements in different geographical environments with reference to India and Gujarat. House types , origin of Indian villages. Rural Problems and planning in India.

Suggested readings:

1. Alam, S.M.: Settlement System of India, Oxford and IBH Publication Co. New Delhi.1982.
2. Chisholm, M: Rural Settlement and Land-use, John Wiley, New York,1967.
3. Grover, N: Rural Settlement-A Cultural Geographical Analysis, Inter-India Publication,Delhi.1985
4. Rao. E. N.: Strategy for Integrated Rural Development, B.R. Publication Cor.Delhi.1986.
5. Mitra,A.: Report on House Type and Village Settlement Patterns in India, Publication Division, Government of India, Delhi,1960.
6. Srinivas, M. N.: Village india, Asian Publication House, Bombay,1968.
7. Wanmali, S.: Service Centres in Rural India, B.R. Publication Cor.Delhi.1983.

PAPER NO -315 CARTOGRAPHY PART – 4 (Theory and Practical)

Course Contents

- Unit – I** Map projection theory: Scale and projection, classification and choice of map projection, properties, merits and demerits and use of map projections.
- Projections suitable for maps of India.
- Unit -II** Projection drawing work:
- Zenithal Polar Gnomonic
 - Zenithal Polar Stereographic
 - Zenithal Polar Orthographic
 - Cylindrical Equal Area Projection
 - Conical Projection with One-standard Parallel and Sinusoidal Projection
- Unit – III** Geographical Data ; its source and compilation, Sources of data : primary and secondary, methods of data collection, Statistical techniques (ungrouped data only)
Measures of central tendency : mean, median and mode
- Unit- IV** Village Survey or geographical tour and Field report – to be included in the Journal along with data, graphs, diagrams, maps and photographs.

Note:

1. Paper 315 on Cartography-4 is both a Theory & a Practical paper. This paper will have 30 marks internal and 70 marks external examination with 30 marks written (Theory related) and 40 marks practical examination including journal assessment (10 marks) and viva-voce examination (05 marks)
2. Each one of the four units mentioned in syllabus has theoretical component and related practical sections.
3. Teaching workload should be of 4 lecture periods (55 minutes) per week for theory part and 4 practical periods (laboratory work) per week with each having the duration of 90 minutes.
4. Number of students in a batch for practical examination shall not be more than 15 under normal circumstances.
5. Students are required to keep a record of practical work in journal form, duly signed by the teacher-in-charge on all exercises and certified by Head of the Department and Principal of the college.
6. Candidates who have not completed their journal work shall not be allowed to appear in the practical examination.
7. Separate passing in practical examination is necessary. Students have to obtain minimum of 15 out of 40 marks of practical examination and 10 out of 30 marks related theory examination.

Suggested Readings:

1. Bygott, B: Map work and Practical Geography, University tutorial press, London, 1969
2. Dalal, V.G.: Prayogik Bhoogol-1 & 2. University Granth Nirman Board , Ahmedabad
3. Dikshit, N.G. : Naksha Shatra, University Granth Nirman Board , Ahmedabad
4. Ishtiaq, M. C. : A text book of Practical Geography, Heritage Publishers, New Delhi,
5. Raisz, Erwin.: Principles of Cartography, McGraw-Hill Book, New York, C 1989
6. Shah.Urmila, P. Reporting Research-Papers on research methodology, Rachana prakasan, Ahmedabad ,1977
7. Singh, R.L. and Dutt, P. K. : Elements of Practical Geography, Kalyani Publishing Co. , New Delhi

