

BHAKTA KAVI NARSINH MEHTA UNIVERSITY - JUNAGADH



STRUCTURE OF THE COURSES

OF

SUBJECT : GEOGRAPHY

B.A. ALL SEMESTER

(Revised Syllabus in Force from: June-2016)

BHAKTA KAVI NARSINH MEHTA UNIVERSITY

ARTS FACULTY

REVISED SYLLABUS

(Introduced from June, 2016)

B.A (GEOGRAPHY) ALL SEMESTERS

Sr No	Level UG	Sem	Course Group	Course (Paper)Title	Course (Paper) No	Credit	Internal Marks	External Marks	Practical /Viva Marks	Total Marks	Course (Paper) Unique Code
			Core / Elec-1 /Elec-2								
1	UG	1	Core	Elements of Physical Geography-I	1	4	30	70		100	
			Core	Geography of Gujarat – I (Physical aspect)	2	3	30	70		100	
			Elec-1	Elements of Physical Geography	1	4	30	70		100	
			Elec-1	Geography of Gujarat – I (Physical aspect)	2	3	30	70		100	
			Elec-2	Elements of Physical Geography-I	1	4	30	70		100	
			Elec-2	Geography of Gujarat – I (Physical Aspect)	2	3	30	70		100	
2	UG	2	Core	Elements of Physical Geography-II	3	4	30	70		100	
			Core	Geography of Gujarat – II (Socio-Economic Aspect)	4	3	30	70		100	
			Elec-1	Elements of Physical Geography-II	3	4	30	70		100	
			Elec-1	Geography of Gujarat – II (Socio-Economic Aspect)	4	3	30	70		100	
			Elec-2	Elements of Physical Geography-II	3	4	30	70		100	
			Elec-2	Geography of Gujarat – II (Socio-Economic Aspect)	4	3	30	70		100	
3	UG	3	Core	Elements of Climatology	5	4	30	70		100	
			Core	Geography of India – 1 (Physical Aspect)	6	3	30	70		100	
			Pract.	Elements of Cartography – 1	7	6	-	100	70+30	100	

			Elect-1	Elements of Climatology	5	4	30	70		100	
			Elect-1	Geography of India – 1 (Physical Aspect)	6	3	30	70		100	
			Elect-2	Elements of Climatology-1	5	4	30	70		100	
			Elect-2	Geography of India – 1 (Physical Aspect)	6	3	30	70		100	
4	UG	4	Core	Elements of Oceanography	8	4	30	70		100	
			Core	Geography of India - 2 (Socio – Economic Aspect)	9	3	30	70		100	
			Pract.	Elements of Cartography – 2	10	6	-	100	70+30	100	
			Elect-1	Elements of Oceanography	8	4	30	70		100	
			Elect-1	Geography of India – 2 (Socio – Economic Aspect)	9	3	30	70		100	
			Elect-2	Elements of Oceanography	8	4	30	70		100	
			Elect-2	Geography of India – 2 (Socio – Economic Aspect)	9	3	30	70		100	
5	UG	5	Core	Soil Geography	11	4	30	70		100	
			Core	Environment Geography	12	4	30	70		100	
			Core	Human Geography	13	4	30	70		100	
			Elect	Geography of Manufacturing	14	3	30	70		100	
			Elect	Fundamentals of Economic Geography - 1	15	3	30	70		100	
			Pract.	Elements of Cartography – III	16	6	-	100	70+30	100	
6	UG	6	Core	Agriculture Geography	17	4	30	70		100	
			Core	Geography of Resource	18	4	30	70		100	
			Core	Geography of Settlement	19	4	30	70		100	
			Elect	Geography of Transportation & Trade	20	3	30	70		100	
			Elect	Fundamentals of Economic Geography-2	21	3	30	70		100	
			Pract.	Elements of Cartography – III	22	6	-	100	70+30	100	

Note :

1. Each paper and practical consist of 100 marks external and 30 marks internal.
2. Semester – 3, 4, 5 and 6 consists of 2 Theory , 1 practical.
3. Figures at the end of each topic of all the courses (Theory and Practical) indicate tentative number of lecture to be delivered on respective topic of theory paper or exercise to be conducted in case of Practical.
4. Students can Carry Stencil Maps in the Examination.
5. Drawing maps and diagrams necessary in each papers.

PAPER STYLE:

Semester End Exam: 70 Marks

Que. 1 Long Question from the Unit - 1 (1 out of 2)	14 Marks
Que. 2 Long Question from the Unit - 2 (1 out of 2)	14 Marks
Que. 3 Long Question from the Unit - 3 (1 out of 2)	14 Marks
Que. 4 Long Question from the Unit - 4 (1 out of 2)	14 Marks
Que. 5 Short Notes: (Any 2 out of 4)	14 Marks

Subject: Geography
Course (Paper) Name & No : Elements of Physical Geography – 1 Paper No -1
Course (Paper) Unique Code :
Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	1	Core Elect-1/ Elect-2		Elements of Physical Geography	4	30	70		2.15 hrs

Course Objectives:

- The objective of this course is to introduce the latest concepts in physical geography, essentially geomorphology; to the students of geography in a brief but adequate manner.

Course Contents:

Unit - I:

The nature and scope of physical geography , Inter - relation of physical geography with other branches of earth sciences, The place of geomorphology in physical geography.

Unit - II:

Solar system, Theories of origin of the Earth (Kant's gaseous hypothesis, Laplace nebular hypothesis, Chamberlin and Moulton's planetesimal theory, James jeans and Zeffreys tidal theory, Nova star theory), Age of the Earth, Geological eras and periods, Earth's interior, Isostasy.

Unit - III:

Diastrophism – Endogenetic forces. Continental drift theories of Wegner's, Plate tectonics, Folding & Faulting, Earth quakes and volcanoes, classification of mountains

Unit - IV:

Rocks - meaning, classification and characteristics, Soils - Meaning, formation, natural characteristics, soil Profile.

Suggested Readings:

- 1) ભૌતિક ભૂગોળ : પ્રા. મહેન્દ્રકુમાર આર. શાહ અને પ્રા. કાનજીભાઈ એન. જસાણી, યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ.
- 2) Rice R.J. : Fundamentals of Geomorphology, Longmans 1977
- 3) Majid Husain : Geomorphology
- 4) Phillip Gersmehl, William kammrath, Herttrert grars – Physical geography.
- 5) Wooldridge S.W. : An outline of Geomorphology : Longmans
- 6) Fairbridge, R.W. Encyclopedia of Geomorphology, Reinhold's, New York, 1968.
- 7) Garner, H.F.: The Origin of Landscape – A Synthesis of Geomorphology, Oxford University Press, London, 1974.
- 8) Sparks B.W.: Geomorphology : Longmans, London, 1960.
- 9) Sharma, H.S.: Perspectives in Geomorphology, Concept, New Delhi, 1980.
- 10) Singh, S : Geomorphology, Prayag Publication, Allahabad, 1998.
- 11) Pitty, A.F. Introduction to Geomorphology, Methuen, London, 1971.

Subject: Geography
Course (Paper) Name & No : Geography of Gujarat – 1 Paper No -2
(Physical division)

Course (Paper) Unique Code :
Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	1	Core Elect-1/ Elect-2		Geography of Gujarat – 1 (Physical division)	3	30	70		2.15 hrs

Course Objectives:

- The course is aimed at presenting a comprehensive, integrated and empirically based profile of Gujarat. Besides the objective is to highlight the physical aspects such as relief, climate, vegetations and minerals of Gujarat with the regional personality of the state.

Course Contents:

Unit - I:

Location, Area and boundaries, Geological structure, Eras and Periods. Relief features, Major physiographic divisions.

Unit - II:

Climate: Characteristic of climate and factors affecting climate. Climatic regions, types and their importance. Drainage pattern: Major Rivers (Narmada, Tapi, Sabarmati and Bhadar)

Unit - III:

Natural vegetation: Types, distributions, utility, wild life, reserve forest, national park and conservation.

Unit - IV:

Mineral resources: Importance and distribution (Fluorspar, Limestone, Bauxite and China clay) Power resources: Importance and distribution (Lignite, Mineral oil, and Natural gas), Soil types, Importance, distribution, problems and their conservation.

Suggested Readings:

- 1) દવે મંજુલાબેન બી.: ગુજરાતની આર્થિક અને પ્રાદેશિક ભૂગોળ (યુનિ. ગ્રંથ નિર્માણ બોર્ડ, અમદાવાદ)
- 2) સી. સી. ડોક્ટર: ગુજરાતની વસ્તી (યુનિ. ગ્રંથ નિર્માણ બોર્ડ, અમદાવાદ)
- 3) નકશામાં ગુજરાત: (યુનિ. ગ્રંથ નિર્માણ બોર્ડ, અમદાવાદ)
- 4) Dikshit K.R. Geography of Gujarat (National Book Trust of India)
- 5) Spate O.H.K. India and Pakistan.
- 6) Kapadia – Animal Life in Gujarat.
- 7) Bhatt – Ports of Gujarat.
- 8) Statistical Bureau Government of Gujarat – Statistical Atlas of Gujarat.

Subject: Geography
Course (Paper) Name & No : Elements of Physical Geography – 2 Paper No -3
Course (Paper) Unique Code :
Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	2	Core Elect-1/ Elect-2		Elements of Physical Geography - 2	4	30	70		2.15 hrs

Course Objectives:

- The objectives of the course is to familiarize the students with the need for understanding of geomorphology with reference to certain fundamental concepts, focusing on the unity of geomorphology in the earth materials and the processes with or without an element of time. Process component of geomorphology is segmented into the internal and external processes of landscape evolution.

Course Contents:

Unit - I:

Denudation and Deposition: Weathering and its types, Exogenic forces, Geomorphic agent and processes: Erosion, transportation, Deposition. Mass wasting and Evolution of landscape – Concept of cycle of Erosion – Devis and Pench

Unit - II:

Works of fluvial (river), Glacial and associated land forms.

Unit - III:

Works of Wind (Arid) Underground water (Karst) and Sea-waves (Coastal) and associated land forms.

Unit - IV:

Application of geomorphology to human activities: settlements, transport land use, mining, resource evolution, environmental hazards and assessment

Suggested Readings:

- 1) પ્રા. મહેન્દ્રકુમાર આર. શાહ અને પ્રા. કાનજીભાઈ એન. જસાણી : ભૌતિક ભૂગોળ, યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ.
- 2) Rice R.J. : Fundamentals of Geomorphology, Longmans 1977
- 3) Thornbury : Principles of Geomorphology : John Wiley & Sons
- 4) Ollier, C. D. : Weathering, Longman, London, 1979.
- 5) Pitty, A. F. Introduction to Geomorphology, Methuen, London, 1971.
- 6) Majid Husain – Geomorphology.
- 7) Phillip gersmehl, William kammrath, Herbert.
- 8) Sharma, H. S. : Perspectives in Geomorphology, Concept, New Delhi, 1980.
- 9) Wooldridge S. W. : An outline of Geomorphology : Longmans
- 10) Fairbridge, R. W. Encyclopedia of Geomorphology, Reinhold's, New York, 1968.
- 11) Singh, S: Geomorphology, Prayag Publication, Allahabad, 1998.

Subject: Geography
Course (Paper) Name & No : Geography of Gujarat – 2 Paper No -4
(Socio – Economic division)

Course (Paper) Unique Code :

Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	2	Core Elect-1/ Elect-2		Geography of Gujarat – 2 (Socio – Economic division)	3	30	70		2.30 hrs

Course Objectives:

- The course is aimed at presenting a comprehensive, integrated empirically based profile of Gujarat. Besides the objective the course contain - socio - economic aspects of Gujarat with the regional development of Gujarat

Course Contents:

Unit - I:

Live stock, Dairy farming and industries, white revolution. Marine wealth (Salt and Fisheries), Agriculture: Characteristic, problems, its solutions and agro – climatic regions.

Major crops: (Wheat, Cotton, Rice, Groundnut and Tobacco)

Unit - II:

Means of irrigation, Major multipurpose irrigation projects and its importance (Narmada, Ukai, kadana and Dharoi) , Major industries and their distribution (Engineering, Petro chemicals, Cement, Ceramic and Sugar industries)

Unit - III:

Transportation: Means, types and importance, Sea – routes, Main ports (Kandla, Veraval, Mundra and Alang), Tourism: Geographical, religious, historical and cultural centre.

Unit - IV:

Population structure, density and distribution, Urbanization and its problems.

Contemporary issues: Environmental hazards, earth quake, flood and drought and management.

Suggested Readings:

- 1) દવે મંજુલાબેન બી.: ગુજરાતની આર્થિક અને પ્રાદેશિક ભૂગોળ (યુનિ. ગ્રંથ નિર્માણ બોર્ડ, અમદાવાદ)
- 2) સી. સી. ડોક્ટર: ગુજરાતની વસ્તી (યુનિ. ગ્રંથ નિર્માણ બોર્ડ, અમદાવાદ)
- 3) નકશામાં ગુજરાત: (યુનિ. ગ્રંથ નિર્માણ બોર્ડ, અમદાવાદ)
- 4) Dikshit K.R. Geography of Gujarat (National Book Trust of India)
- 5) Spate O.H.K. India and Pakistan.
- 6) Kapadia – Animal Life in Gujarat.
- 7) Bhatt – Ports of Gujarat.
- 8) Statistical Bureau Government of Gujarat – Statistical Atlas of Gujarat.

Subject: Geography
Course (Paper) Name & No : Elements of Climatology **Paper No - 5**
Course (Paper) Unique Code :
Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	3	Core Elect-1/ Elect-2		Elements of Climatology	4	30	70		2.15 hrs

Course Objectives:

- The objective of this course is to make the students. The aim of the course is to provide an understanding of weather phenomena; dynamics of global climates and generation of climatic information and their application.

Course Contents:

Unit - I:

Weather and climate: Elements and Factors affecting weather and climate, Difference between weather and climate. Climatology: Definition and significance of climatology, Origin and Composition and Structure of the atmosphere

Unit - II:

Insolation : Factors affecting the Insolation, distribution of Solar Insolation. Temperature: Factors controlling the temperature, Vertical & Horizontal distribution of temperature, temperature inversions.

Unit - III:

Atmospheric pressure: Factors affecting the pressure, Vertical and Horizontal distribution of pressure, Planetary and Local winds. Atmospheric disturbances: Tropical and Temperate cyclones.

Unit - IV:

Atmospheric moisture: Humidity, Evaporation and condensation, Types of precipitation.

The hydrological cycle. Atmospheric pollution and Global warming.

Suggested Readings:

- 1) પ્રા. મહેન્દ્રકુમાર આર. શાહ અને પ્રા. કાનજીભાઈ એન. જસાણી : ભૌતિક ભૂગોળ, યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ.
- 2) Barry, R. G. and Chouly P. J. : Atmosphere, Weather and Climate, Routledge, London and New York, 1998.
- 3) Critchfield, J. H. : General Climatology, Prentice Hall, India, New Delhi, 1993.
- 4) Das, P. K. : Monsoons National Book Trust, New Delhi, 1987.
- 5) Fein, J. S. and Stephens, P. N. : Monsoons, Wiley Inter science, 1987.
- 6) India Met. Deptt. : Climatologically Tables of Observatories in India, Govt. of India, 1968.
- 7) Lal, D. S. : Climatology, Chaitanya Publications, Allahabad, 1986.
- 8) Lydolph, P. E. : The Climate of the Earth, Rowman, 1985.
- 9) Menon, P. A. : Our Weather, N.B.T., New Delhi, 1989.
- 10) Peterson, S. : Introduction of Meteorology, Mc Graw Hill Book, London, 1969.
- 11) Robinson, P. J. and Henderson S. : Contemporary Climatology, Henlow, 1999.
- 12) Thompson, R. D. and Perry, A (ed.): Applied Climatology, Principles and Practice, Routledge, London, 1997.

Subject: Geography
Course (Paper) Name & No : Geography of India – 1 Paper No - 6
(Physical division)

Course (Paper) Unique Code :
Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	3	Core Elect-1/ Elect-2		Geography of India – 1 (Physical division)	3	30	70		2.15 hrs

Course Objectives:

- To understand India in terms of various physical division, their important characteristics.
- To understand diversity of cultures in the country.
- To prepare the students for understanding the India as a dynamic entity emerging from the physical elements.

Course Contents:

Unit - I:

Location, structure and main physiographic divisions of India, land of unity in diversities.

Unit - II:

Drainage system of India and their functional, significance regional and seasonal variation of climate and climatic regions of India.

Unit - III:

Natural vegetation: types and distributions, their use and need for conservation and wild life.

Unit - IV:

Energy resources, coal, petroleum, natural gas. Soil types of India: their distribution and characteristics, soils problems and their management.

Suggested Readings:

- 1) પ્રા. જે. જી. રંગીયા અને પ્રા. વાઘ. પી. પાઠક : ભારતની ભૂગોળ, યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ. અમદાવાદ
- 2) Singh R. L. India: A Region Geography National Geography Society of India Varansai - 1971.
- 3) Sharma T. C. : Economic and Commercial Geogrpahy of India - Vika Publishing Hance Pvt. Ltd.
- 4) Wadia D. N. geology of India MC. Millan & Co. London – 1967.
- 5) ડૉ. રામકુમાર ગુજર એન્ડ બી. સી. જાટ ભારત કા ભૂગોલ – પંચશીલ પ્રકાસન જયપુર.
- 6) Despande C.D. India – A Regional interpretation, Northern Book center new Delhi – 1992.
- 7) Dube R. N. : Economic & Geography of India.
- 8) Mamona G. B. : Advance Geography of India.

Subject: Geography
Course (Paper) Name & No : Elements of Cartography – 1 (Practical) Paper No - 7
Course (Paper) Unique Code :
Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	3	Core Pract		Elements of Cartography – 1	6	-	100	70+30	5 hrs

Course Objectives:

- The objectives of this course are to train the students in the art of representing demographic and social economic data base of any area through simple statistical techniques and cartograms.
- The concept of weather map weather instruments and symbol necessary for accurate. Geographical weather forecasting and reading map.
- The course thus trains the student in preparing different types of maps.

Course Contents:

Unit - I:

The art and science of cartography – Techniques and preparation of maps, types of maps, principal of map design.

Unit - II:

Diagram representation of statistical data – (one dimensional diagram) simple line graph, simple bar diagram, combined line and bar graph, Climograph, Hythergraph, Wind rose.

Unit - III:

Weather Map Symbol – interpretation of Weather map of three seasons.

Weather instruments – introduction of following instruments – Thermograph (All types)
Barometer, Anemometer, Rain gauge etc.

Weather instruments drawn in journal – Simple Thermometer, Minimum and Maximum
Thermometer, Wet and Dry bulb, Thermometer, Rain Gauge.

Unit - IV:

Educational tour/ Village survey

Suggested Readings:

- 1) ડો. નરેન્દ્ર જી. દીક્ષિત: પ્રયોગિક ભૂગોળ, યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ. અમદાવાદ
- 2) પ્રા. અંબુભાઈ ટી. દેસાઈ અને પ્રા. વી. જી. દલાલ : પ્રયોગિક ભૂગોળ ભાગ – ૧ અને ૨, યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ. અમદાવાદ
- 3) Monkhouse - Maps and diagrams Methuen 1971.
- 4) Negi, Balbir Singh. Practical Geography Third revised Ed. Kedar Nath and Ram Nath, Meerut & Delhi, 1994-95.
- 5) Sandover, J.A. Plane Surveying. Arnold 1961.
- 6) Singh & Karanjta - Map work and Practical Geography Central Book Dept Allahabad 1972.
- 7) Singh, R.L. and Dutt, P.K. Elements of Practical Geography, Students Friends.

Subject: Geography
Course (Paper) Name & No : Elements of Oceanography Paper No - 8
Course (Paper) Unique Code :
Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective-1/ Elective-2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	4	Core Elect-1/ Elect-2		Elements of Oceanography	4	30	70		2.15 hrs

Course Objectives:

- The objectives of the course are to introduce students to the many facets of Oceans, such as, evolution of the oceans, physical and chemical properties of sea water, atmospheric and oceanographic circulation, the fascinating world of marine life and the characteristic of marine environment and the impact of man on the marine environment.

Course Contents:

Unit - I:

Relevance of oceanography in Earth and atmospheric sciences: Definition, Nature and scope of oceanography, Configuration of the ocean floor - Continental shelf, Continental Slope, Deep Sea Plain or Abyssal Plain, Ocean deep or Trench Relief of Atlantic, Pacific and Indian Oceans- Hypsographic Curve

Unit - II:

Composition of oceanic water, Distribution of temperature and salinity of Oceans and Seas.

Unit - III:

Circulation of Ocean Water: Waves and Tides, Currents: Currents of the Atlantic, Pacific and Indian Oceans, basins.

Unit - IV:

Marine Deposits and Coral Reefs, Coastal Environment, Oceans as Store House of Resources for the Future.

Suggested Readings:

- 1) પ્રા. મહેન્દ્રકુમાર આર. શાહ અને પ્રા. કાનજીભાઈ એન. જસાણી : ભૌતિક ભૂગોળ, યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ.
- 2) પ્રા. કાનજીભાઈ એન. જસાણી : સમુદ્ર શાસ્ત્ર, યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ.
- 3) Garrison T. Oceanography Wads worth com. USA
- 4) Grald General Oceanography : An Introduction John wiley & Sons New York
- 5) Thurman H. B. : Introductory Oceanography Charies webber E Merril Publication Co. 1984
- 6) Philip lake : Text book of Physical Geography Srishti Book Distribution. New Delhi
- 7) Matthew Fortaine: The Physical geography of the sea, the beknep press of Harvard University press.

Subject: Geography
Course (Paper) Name & No : Geography of India – 2 Paper No -9
(Socio – Economic division)

Course (Paper) Unique Code :

Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	4	Core Elect-1/ Elect-2		Geography of India – 2 (Socio – Economic division)	3	30	70		2.15 hrs

Course Objectives:

- These objectives of this course are to give an overview of the land, people and economy of the India.
- The course aims to provide an understanding of the existing reality of resource utilization and environmental depletion.
- To sensitize the students with development issues and policies.

Course Contents:

Unit - I:

Animal wealth of India, Milk and Milk products, White revolution and Marine Resources. Agricultures regions of India, their problems and remedies, Major crops (Wheat, Cotton, Rice, Tea, Sugarcane, Grand nut) ,Green revolution.

Unit - II:

Major Multipurpose projects and their regional significance. Industrial development and Indian economy, Industrial regions of India, Major industries and their distribution (Cotton textiles, Iron and steel, Petro chemical and Cement industries)

Unit - III:

Transportation: Road, Railways, Water routes, Air transportation, their distribution and development. Trade: National and international

Unit - IV:

Population structure, density and distribution of population in India and its problems. Contemporary issues: Floods and Droughts, Regional Disparity, Poverty, Social and Ethnic tension, Globalization and Urbanization.

Suggested Readings:

- 1) પ્રા. જે. જી. રંગીયા અને પ્રા. વાઘ. પી. પાઠક : ભારતની ભૂગોળ, યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ. અમદાવાદ
- 2) ડૉ. રામકુમાર ગુજર એન્ડ બી. સી. જાટ ભારત કા ભૂગોળ – પંચશીલ પ્રકાસન જયપુર.
- 3) Singh R. L. India : A Region Geography National Geography Society of India Varanasi - 1971.
- 4) Sharma T. C. : Economic and Commercial Geography of India - Vika Publishing Hance Pvt. Ltd.
- 5) Wadia D. N. geology of India MC. Millan & Co. London – 1967.
- 6) Despande C.D. India – A Regional interpretation, Northern Book center new Delhi – 1992.
- 7) Dube R. N. : Economic & Geography of India.
- 8) Mamona G. B. : Advance Geography of India.

Subject: Geography
Course (Paper) Name & No : Elements of Cartography – 2 (Practical) Paper No - 10
Course (Paper) Unique Code :
Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	4	Core Pract		Elements of Cartography – 2	6	-	100	70+30	5 hrs

Course Objectives:

- Geography is an amalgam of physical as well a social sciences one as such, it is necessity for the students to go through laboratory exercises, particularly the techniques of drawing cartograms showing physical, climatic and socio economic attributes of region.
- The objective of showing relief is to understand the topographical map and conventional signs.

Course Contents:

Unit - I:

Representation of relief features – Hachure's, hill shading, layer tinting contours spot height and bench marks. Representation of relief by contours. (Uniform slope, Concave slope, Convex slope, Conical hill, V shaped valley, U shaped valley, Water fall, Saddle, terraced slope)

Unit - II:

Diagrammatic representation of statistical data.

- (I) Two dimensional statistical Diagrams – Rectangles, Squares, Circle, and Pie diagram.
- (II) Three dimensional statistical Diagrams – Cube, Proportional, Spheres.

Unit - III:

Topographical Map – Layout and numbering of topographical sheet. Conventional signs.
Interpretation of topographical sheet.

Suggested Readings:

- 1) ડો. નરેન્દ્ર જી. દીક્ષિત: પ્રયોગિક ભૂગોળ, યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ. અમદાવાદ
- 2) પ્રા. અંબુભાઈ ટી. દેસાઈ અને પ્રા. વી. જી. દલાલ : પ્રયોગિક ભૂગોળ ભાગ – ૧ અને ૨, યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ. અમદાવાદ
- 3) Monkhouse - Maps and diagrams Methuen 1971.
- 4) Negi, Balbir Singh. Practical Geography Third revised Ed. Kedar Nath and Ram Nath, Meerut & Delhi, 1994-95.
- 5) Sandover, J.A. Plane Surveying. Arnold 1961.
- 6) Singh & Karanjta - Map work and Practical Geography Central Book Dept Allahabad 1972.
- 7) Singh, R.L. and Dutt, P.K. Elements of Practical Geography, Students Friends.

Subject: Geography Course

(Paper) Name & No : Geography of Soil

Paper No - 11

Course (Paper) Unique Code :

Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	5	Core		Soil Geography	4	30	70		2.15 hrs

Course Objectives:

- The aim of the course is to introduce the students to soil which is one of the important elements of the earth which supports the life system. The overuse and misuse of soil in recent years have resulted in degradation of soil. Study of soil will help the students to appreciate the inherent limitations of soil to a particular use and managing the soil effectiveness.

Course Contents:

Unit - I:

Nature, scope and significance of soil geography its relationship with pedology.

Soil factors - Parent material, organic climatic, topographic, spatial temporal dimensions

Unit - II:

Process of soil formation - physical, biotic and chemical Process, composition of soils. Soil profile, Podzolization, Laterisation, Calcification, Gleezation.

Unit - III:

Physical properties of soil- Morphology, Texture, Structure, Water, Air, Temperature and other properties of soil, Chemicals properties of soil, Soil reaction, Biologic process.

Unit - IV:

Classification of soils, their characteristics and world patterns, Soil erosion, Causes Degradation and Conservation of soil, Soils of India.

Suggested Readings:

- 1) डॉ धर्मेन्द्रसिंह - मुद्रा विज्ञान, हिमांशु पब्लिकेशन, उदेपुर.
- 2) Backman, H. O. and Brady, N. C. :The Nature and properties of soils, Mc Milan New York, 1960.
- 3) Bennet, Hugh H. : Soil Conservation, Mc.Graw Hill New York.
- 4) Foth H. D. and Turk, L. M. : Fundamentals of Soil Science, John Wiley, New York, 1972.
- 5) Govinda Rajan, S. V. and Gopal Rao, H. G. : Studies on soils of India Vikas, New Delhi, 1978
- 6) Ray Chodhari, S. P. Soils of India ICAR New Delhi, 1968
- 7) Mc. Bride, M. B. : Environmental Chemistry of Soils, Oxford University Press, New York 1999.

Subject: Geography
Course (Paper) Name & No : Environmental Geography Paper No -12
Course (Paper) Unique Code :
Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	5	Core		Environment Geography	4	30	70		2.15 hrs

Course Objectives:

- The objective of this paper is to provide an overview of man and its interface with environment. The course aims to provide an understanding of the existing reality of resource utilization and environmental depletion; further aims to sensitize the students to the concept of sustainable resource use and sustainable development.

Course Contents:

Unit - I:

Environmental Geography – Definition, nature and scope, Environment geography and other sciences. Concept of the environment and definition, components and types of environment.

Unit - II:

Man Environmental Inter-Relation, Determinism, Possibilism, Symbiosis between man and environment. Ecosystems - Meaning and definition, principles of ecology, Types functioning and productivity of ecosystems, Conservation.

Unit - III:

Environmental Hazards - Types, introduction of disaster management. Environmental degradation - Types, degradation by human activities.

Unit - IV:

Environmental pollutions - Types of pollutions, Environmental and education awareness, Environmental Policy Management.

Suggested Readings:

- 1) ડો. નીલેન્દ્રકુમાર જી. દીક્ષિત : માનવ અને પર્યાવરણ, અરુણોદય પ્રકાશન.
- 2) ડૉ સવિન્દ્ર સિંહ: પર્યાવરણ ભૂગોલ પ્રયાગ પ્રસ્તક ભવન. ઇલાહાબાદ.
- 3) Botkin D. B. and Keller Ea - Environmental Studies - Merrill publishing Company Columbus.
- 4) Dikshit R. D. - Geography and Teaching of the environment in Geography - Pune.
- 5) Bleton C - Natural Hazards and globla change - Tc Journal- 1989
- 6) Park CC - Ecology and Environmental Management - London.

Subject: Geography
Course (Paper) Name & No : Human Geography Paper No -13
Course (Paper) Unique Code :
Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	5	Core		Human Geography	4	30	70		2.15 hrs

Course Objectives:

- The objectives of this course are to acquaint the students with the nature of man-environment relationship and human capability to adopt and modify the environment under its varied conditions from primitive life style to the modern living; to identify and understand environment and population in terms of their quality and spatial distribution pattern and to comprehend the contemporary issues facing the global community.

Course Contents:

Unit - I:

Human Geography: Meaning and scope, its relation with other branches of Geography.
 Man and Environment: Man as a Geographical factor, Determinism and Possibilism.

Unit - II:

Distribution of Human Population: World distribution of population, physical, economic and social factors influencing spatial distribution, Migrations internal and international population

Unit - III:

Ethnic Distribution: Meaning of Race, Physiological characteristics, brief study of racial classification and distribution of main types of races, Major types of tribes in India.

Unit - IV:

Development of Culture: Gradual emancipation of the man from the control of nature technology and civilization tools and techniques.

Suggested Readings:

- 1) ડો. નીલેન્દ્રકુમાર જી. દીક્ષિત : માનવ ભૂગોળ યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ. અમદાવાદ
- 2) ડૉ જીતેન્દ્ર જીતેન્દ્ર પ્રસાદ સક્સેના – માનવ ભૂગોળ, લક્ષ્મી નારાયણ અગ્રવાલ આગરા.
- 3) ડૉ. એમ. પી. કરણ - માનવ ભૂગોળ,
- 4) M. P. Sharma. Human Geography
- 5) Perpillon A. V. : Human Geography (Long Mans)
- 6) Huntington - E : Principles of human Geography
- 7) Vidal De-La Blanche : Principles of Human Geography (Cinstable)

Subject: Geography
Course (Paper) Name & No : Geography of Manufacturing Paper No -14
Course (Paper) Unique Code :
Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	5	Elect		Geography of Manufacturing	3	30	70		2.15 hrs

Course Objectives:

- To introduce the nature, development and significance of manufacturing and its links with the world economy.
- To understand the location of major manufacturing activities with the support of various industrial location theories and models.
- To discuss problems and impact of manufacturing industries with respect to relocation, environmental pollution and occupational health and industrial hazard.

Course Contents:

Unit - I:

Nature, scope and recent developments, Elements and factors of localization of Manufacturing industries; Centralization and Decentralization of industrial enterprises; Horizontal, Vertical and Diagonal linkages of modern industries.

Unit - II:

Theories and models of Industrial Location: Weber & Losch, Modern refinements to least-cost-theory; Critical review and application of industrial location theories. :

Unit - III:

Distribution and spatial pattern of manufacturing industries-Iron and Steel, Energy goods and Automobiles; Textiles, Chemicals, Petro-chemicals, Hardware and Software

Industries. Methods of delineating manufacturing regions; major manufacturing regions of the world.

Unit - IV:

Environmental degradation caused by manufacturing industries Industrial hazards and occupational health. Impact of manufacturing industries on economic development; changing industrial policy - need for integrated industrial development.

Suggested Readings:

- 1) Alexander, J.W. Economic Geography, Prentice Hall, Englewood Cliffs, 1988.
- 2) Alexanderson, C.: Geography of Manufacturing, Prentice Hall, Bombay, 1967.
- 3) Hoover, E.M.: The Location and Space Economy, McGraw Hill, New York 1948.
- 4) Isard, W.: Methods of Regional Analysis, the Technology Press of M.I.T. & John Wiley & Sons, New York 1956.
- 5) Miller, E.: A Geography of Manufacturing, Prentice Hall, Englewood Cliffs, New Jersey, 1962.
- 6) Weber, Alfred, Theory of Location of Industries, Chicago University Press, Chicago, 1957.

Subject: Geography

Course (Paper) Name & No : Fundamentals of Economic Geography – 1 Paper No -15

Course (Paper) Unique Code :

Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	5	Elect		Fundamentals of Economic Geography - 1	3	30	70		2.15 hrs

Course Objectives:

- The basic economy of the world is undergoing rapid transformation in recent times.
- The process of such transformation of economic activities from primary to secondary and tertiary stages is dynamic in nature.

Course Contents:

Unit - I:

Meaning, Nature and scope of economic geography. Physical factors affecting economic activities (Location, Relief, Climate, Vegetation, Animals, Mineral resources and Soils)

Unit - II:

Classification of economic Activities: Primary, Secondary , Tertiary, Quaternary

Unit - III:

The human factor: Density and distribution of population geographical controls of distribution of population, Man as a producer and consumer.

Unit - IV:

Agriculture: Subsistence and Commercial Farming, Mixed farming, Plantation agriculture and Dairy farming.

Suggested Readings:

- 1) પ્રા. વી. જી. દલાલ – આર્થિક ભૂગોળના સિદ્ધાંત યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ.
અમદાવાદ
- 2) ડૉ. બબી. સી. જાટ – આર્થિક ભૂગોળ, પંચશીલ પ્રકાશન, જયપુર.
- 3) Cooper E. H. Economic Geography (Uni. Tutorial Press)
- 4) Arunachalam B. Economic and commercial Geography. (A.R. Sheth & Co. Bombay)
- 5) Thowman : The Geography of Economic Activates.
- 6) Zimmerman: world resources and Industries (Harper)
- 7) Gregor H. F. Geography of Agriculture (Prentice Hall New Jersey U.S.A. 1970)

Subject: Geography

Course (Paper) Name & No : Elements of Cartography – III (Practical) Paper No -16

Course (Paper) Unique Code :

Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	5	Core Pract		Elements of Cartography – III	4	-	100	70+30	5 hrs

Course Objectives:

- The objectives of the course are to train the students in the art of preparing maps and the fundamental of map making techniques.
- The map projections necessary for accurate geographical positioning, and preparing physical plans of an area also form perfect the practical exercises.

Course Contents:

Unit - I:

Scale – Plain, diagonal and comparative scale, (different Units, time scale)

Unit - II:

Enlargement & Reduction of maps – Square method, similar triangle and Pantograph.

Unit - III:

General principles, Classification and choice of projections, construction properties, merit and demerits.

- I. Zenithal Group – Gnomonic, Stereographic, Orthographic (Polar cases)
- II. Conical Group - One Standard Parallel and two Standard Parallel
- III. Cylindrical Group - Simple, Equidistant, Equal Area Projections.

Unit - IV:

Village survey / Educational tour (Report should be prepared by each student separately.)

Suggested Readings:

- 1) ડો. નરેન્દ્ર જી. દીક્ષિત: પ્રયોગિક ભૂગોળ, યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ. અમદાવાદ
- 2) પ્રા. અંબુભાઈ ટી. દેસાઈ અને પ્રા. વી. જી. દલાલ : પ્રયોગિક ભૂગોળ ભાગ – ૧ અને ૨, યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ. અમદાવાદ
- 3) Monkhouse - Maps and diagrams Methuen 1971.
- 4) Negi, Balbir Singh. Practical Geography Third revised Ed. Kedar Nath and Ram Nath, Meerut & Delhi, 1994-95.
- 5) Sandover, J.A. Plane Surveying. Arnold 1961.
- 6) Singh & Karanjta - Map work and Practical Geography Central Book Dept Allahabad 1972.
- 7) Singh, R.L. and Dutt, P.K. Elements of Practical Geography, Students Friends.

Subject: : Geography
Course (Paper) Name & No : Agriculture Geography Paper No -17
Course (Paper) Unique Code :
Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	6	Core		Agriculture Geography	4	30	70		2.15 hrs

Course Objectives:

- To familiarise the students with the concept, origin, and development of agriculture; to examine the role of agricultural determinants towards changing cropping patterns, intensity, productivity, diversification and specialization. The course further aims to familiarise the students with the application of various theories, models and classification schemes of cropping patterns and productivity.

Course Contents:

Unit - I:

Concept, meaning and scope of agricultural geography. Origin and development of agriculture.

Unit - II:

Factors affecting agriculture - Physical, Economic, Social. Agriculture methods and system.

Unit - III:

Types of crops - Wheat, Rice, Maize, Sugarcane, Tea, Coffee, Cotton, Rubber.
 Agricultural regions of the World

.

Unit - IV:

Models - Von Thunen's Model, Location, Agricultural problems and prospects
developmental policies.

Suggested Readings:

- 1) कृषि भूगोल – प्रमिला कुमार एवम श्रीमल शर्मा, मध्यप्रदेश ग्रंथ अकादमी भोपाल.
- 2) कृषि भूगोल – डॉ. बी. एम शर्मा, साहित्य भवन, आगरा.
- 3) कृषि भूगोल – लेजली सायमन, मध्यप्रदेश हिन्दी ग्रंथ अकादमी.
- 4) Yadav SS : Agriculture Ecology - 2007, Pointer Publishers, Jaipur.
- 5) Rama J. L. Agriculture Geography - 2008, Ravat Publication Jaipur.
- 6) Hussain M. : Agriculture Geography Ravat Publication
- 7) Singh and Dhillon S. S. - Agricultural Geography, Tata Mcgraw Hill Pub., New Delhi 1988.

Subject: Geography
Course (Paper) Name & No : Geography of Resource Paper No -18
Course (Paper) Unique Code :
Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	6	Core		Geography of Resource	4	30	70		2.15 hrs

Course Objectives:

- The objective of this paper is to provide an overview of resource geography and its interface with environment.
- The course aims to provide an understanding of the existing reality of resource utilization and environmental depletion; further aims to sensitize the students to the concept of sustainable resource use and sustainable development.

Course Contents:

Unit - I:

Meaning, nature and scope of geography of resources, Classification and types of resources.

Unit - II:

Water resource – Inland and Oceanic. Forest Resource: Types, distribution and conservation.

Unit - III:

Energy (Power) Resource: Coal, Petroleum, Hydro electric Projects, distribution and energy crises. Human resource: Factors affecting to distribution of population.

Population and resource region.

Unit - IV:

Animal resources and Marine resource, utilization and conservation of resources, Major resources, soil, forest, water, mineral etc. Resource policy.

Suggested Readings:

- 1) Mongu and Agrwal : World resources and Trade National Publishing House Delhi.
- 2) Zimmermans ; World resources and Industries (Harper)
- 3) N. S. Rathore : Non Conventional Energy Sources – (Himanshu Publication, Udaipur)
- 4) Matter. J. R. : Water resources distribution and management (John wiley marylane 1984)
- 5) Kates R. W. and Burton I.(ed): Geography of Resources and Environment (Ottowa – 1980)
- 6) Mc Lren D. J. and Skinnet B. J. (eds): Resources and World Development (John wiley & Sons. New York 1986)
- 7) Owen. S & Owens. P.L.: Environment Resources & Conservation (Cambridge University Proess New youk 1991)
- 8) Simmons, I. G. Ecology of Natural Resources (Ed ward Arnold, London-1974)
- 9) Singh. S: Environmental Geography (Prayag Publication)
- 10) World Resources Institute: World Resources (Latest Report) Washington – D. C.

Subject: Geography
Course (Paper) Name & No : Geography of Settlement Paper No -19
Course (Paper) Unique Code :
Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	6	Core		Geography of Settlement	4	30	70		2.15 hrs

Course Objectives:

- The aims of this course are to acquaint the students with the spatial and structural characteristics of human settlements under varied environmental conditions; to enable them to diagnose special issues related to urban and rural settlements;

Course Contents:

Unit - I:

Nature, Scope and development of settlement geography definition of urban and rural Settlement: Merits and demerits. Settlement types and patterns of settlements.

Unit - II:

Settlement Site and Structure: - Internal morphology, External form, Filed Patterns, Functions, Types of houses.

Unit - III:

Spatial organization: Size, spacing and hierarchy of settlements, Emergence and characteristics of urban settlements.

Unit - IV:

Settlement: Environment relationship, Global and regional pattern, Policies and programmes. Salient features of human settlements in India.

Suggested Readings:

- 1) माजिद हुसेन – मानव अधिवास, रावत पब्लिकेशन, जयपुर.
- 2) Johnson J. H. : Urban Geography : An Introductory Analysis, Pergamon Press, London.
- 3) Clout R. D. : Rural Geography pergamon press, London - 1970.
- 4) Mukerji R. K. : Man and his Habitation :Popular Books Bombay, 1968
- 5) Singh R. L. : Readings in rural settlement Geography Banaras Hindu University, Department of Geography, Varanasi
- 6) Misra H. N. : Rural Geography Heritage Publishers New Delhi-1987.

Subject: Geography
Course (Paper) Name & No : Geography of Transportation and Trade Paper No -20
Course (Paper) Unique Code :
Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	6	Elect		Geography of Transportation and Trade	3	30	70		2.15 hrs

Course Objectives:

- The objective of the course is to provide clarity about elements of transport as an infrastructure that facilitates linkages among locations and areas with varied demographic socio – culture and economic attributes and nature and agricultural resource. The subject importance is to understand the spatial variations in movement of commodities and trade relations within and between regions.

Course Contents:

Unit - I:

Transportation - Meaning and Importance of Transportation as Tertiary activity, Methods of study and characteristics of Geography of transportation.

Unit - II:

Factors affecting the developments of transportation, Role of technology in the developments of transportation.

Unit - III:

Means of transportation: Land – Road – Railway, Air, Pipelines and Rope ways, Waterinland, Water ways and Sea routes, Air transportation. Regional density and distribution of transportation methods.

Unit - IV:

Trade – Meaning and scope as tertiary activity. Eco-geographical aspects of trade. Internal, international and export trade. Balance of trade, Trading communities and trading regions.

Suggested Readings:

- 1) વી. જી. દલાલ – વાહનવ્યવહાર અને વેપારની ભૂગોળ, યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ.
અમદાવાદ
- 2) Feulks R. W. Lan Allen : Principals of Transport (194 allen 1973)
- 3) Thompson J. M. Modern Transportation economics (Penguin Books – 1974)
- 4) Seaby K. R. The Geography of Air Transport : Hytchinson University
- 5) O'dell A. C. and Richards R. S. Railway and geography (Hutchinson University)
- 6) Taaffe E. J. and Gauthies H. L. geography of transportation (Prentice Hall – 1973)

Subject: Geography

Course (Paper) Name & No : Fundamentals of Economic Geography-2 Paper No -21

Course (Paper) Unique Code :

Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	6	Elect		Fundamentals of Economic Geography-2	3	30	70		2.15 hrs

Course Objectives:

- In view of this the objectives of this course are to integrate the various factors of economic development and to acquaint the students about this dynamic aspect of economic geography
- The course aims to provide an understanding of the existing reality of resource utilization.

Course Contents:

Unit - I:

Mining activities and distribution of important Mineral (Metallic & Non Metallic) resources. Iron, Bauxite, Manganese, Mica.

Unit - II:

Power (Energy) resources: Coal, Petroleum, Natural gas, Hydro Power, Atomic power and other Nuclear power resources.

Unit - III:

Geography of Manufacturing: Meaning, Location aspects of industries, with reference to Iron and Steel industry, Cotton textile industry, Petro chemicals industry and Automobile industry.

Unit - IV:

Transportation and Trade: Means of Transportation as a tertiary activity and economic significance of transportation – Road – Railways, air and Water routes. Types of trade, of International trade, Balance of trade.

Suggested Readings:

- 1) પ્રા. વી. જી. દલાલ – આર્થિક ભૂગોળના સિદ્ધાંત યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ. અમદાવાદ
- 2) ડૉ. બબી. સી. જાટ – આર્થિક ભૂગોળ, પંચશીલ પ્રકાશન, જયપુર.
- 3) Cooper E. H. Economic Geography (Uni Tutorial Press)
- 4) Arunachalam B. Economic and commercial Geography. (A.R. Sheth & Co. Bombay)
- 5) Thowman : The Geography of Economic Activates.
- 6) Zimmerman: world resources and Industries (Harper)
- 7) Miller E. W. : A Geography of manufacturing (Prentice and Industries (Harper)
- 8) Janaki V.A. Economic geography concept publishing Co. New Delhi. 1985
- 9) Boesch H. A geography of World Economy (D. Van No strand Co. New York – 1964)

Subject: Geography
Course (Paper) Name & No : Elements of Cartography – 4 (Practical) Paper No -22
Course (Paper) Unique Code :
Course Exam Time Duration : 45 Lectures

Name of Cour	Semester	Core/ Elective- 1/ Elective- 2/ Practical	Paper Code	Paper Title	Credit	Internal Marks	External Marks	Practical/ Viva/ Exam. Marks	External Exam. Time Duration
B. A.	6	Core Pract.		Elements of Cartography - 4	6	-	100	70+30	5 hrs

Course Objectives:

- The objective of this course are to train the students for surveying, techniques and map projections and counter maps for Gradients, Slope analysis and surveying accurate plans of an area from parts of the practical exercises.

Course Contents:

Unit - I:

Map projections – Meaning and purpose, classification of projections, Selection of map projections.

- I. Zenithal Groups - Gnomonic, Stereographic and Orthographic (Equatorial Case)
- II. Conical Groups - Bonne's and polyconic Projections.
- III. Conventional Group - Mollweid, Sinu soidal choice of Projection.
- IV. Cylindrical Group - Mercator

Unit - II:

Contour Map , Conversion of gradient into degrees of slope and vice versa. Profile along the curved lines. Inter visibility, marking routes on contour map

Unit - III:

Surveying: Definition and purpose. Type of surveying, Methods of surveying.

- I. Chain and tap Survey – Equipment and the surveying procedure.
- II. Prismatic Compass – Prismatic compass, Measures of bearing, Method of prismatic compass surveying.
- III. Plane Table Survey – Equipment procedure for Plane table survey.

Suggested Readings:

- 1) ડો. નરેન્દ્ર જી. દીક્ષિત: પ્રયોગિક ભૂગોળ, યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ. અમદાવાદ
- 2) પ્રા. અંબુભાઈ ટી. દેસાઈ અને પ્રા. વી. જી. દલાલ : પ્રયોગિક ભૂગોળ ભાગ – ૧ અને ૨, યુનિવર્સિટી ગ્રંથનિર્માણ બોર્ડ. અમદાવાદ
- 3) Balchin W.C.V. and Richards AW. (1952) Practical and Experimental Geography, Metnmen, Landon
- 4) Karnetkar T.P and Skulkarni S. U. (1988) Surveying and Leveling Pune.
- 5) Misra R.P. and romesh A. (1989) Fandamental of car
- 6) Monkhouse - Maps and diagrams Methuen 1971.
- 7) Negi, Balbir Singh. Practical Geography Third revised Ed. Kedar Nath and Ram Nath, Meerut & Delhi, 1994-95.
- 8) Sandover, J.A. Plane Surveying. Arnold 1961.
- 9) Singh & Karanjta - Map work and Practical Geography Central Book Dept Allahabad 1972.
- 10) Singh, R.L. and Dutt, P.K. Elements of Practical Geography, Students Friends.

SAMPLE QUESTIONS

Note :

1. This Paper Contains two Sections.
2. Time for regular student in theory Paper is 2.15 hrs and for external students is 3.00 hrs
3. Practical papers contain 100 marks and time for paper is 5 hrs.

Section-A

(Compulsory for Regular and External Students)

Note-1 : This section consists of Four essay type question with internal options of fifteen (15) marks each to be answered in about one thousand (1000) words on any of the following topic. Diagrams and map wherever necessary.

(15 x 4 = 60 marks)

Note-2. This section consists of Four short notes type question with general options of ten (10) marks each to be answered five (250) words on any of the following topic. Diagrams and map wherever necessary.

(5 x 2 = 10 marks)

Section-B

(Compulsory for External Students Only)

Note-1 : This section consists of Two essay type question with internal option of fifteen (15) marks to be answered in about one thousand (1000) words on any of the following topic.

(15 x 2 = 30 marks)