

SARDAR PATEL UNIVERSITY
Programme: BA (Geography)
Semester: III
Syllabus with effect from: June 2012

Paper Code: UA03CGEO05	Total Credits: 3
Title Of Paper: Climatology	

Unit	Description in detail	Weightage (%)
1	Nature and scope of climatology and its relationship with meteorology. Composition and structure of the atmosphere Insulation, Heat balance of the earth. Green house effect, Vertical and Horizontal distribution of temperature.	
2	Atmospheric pressure, vertical and horizontal distribution of pressure, Pressure belts. Atmospheric motion, Forces controlling motion of the air, General Circulation in the atmosphere. Planetary and local winds; Monsoons and Jet streams.	
3	Atmospheric moisture: Humidity, evaporation, condensation, precipitation, formation and types. Acid rain, world pattern of precipitation.	
4	Concept of Air mass, Classification, Fronts-front genesis Temperate and tropical cyclones Ocean atmospheric interaction – El Nino effect.	
5	Koppen's, Thornthwaite's and Trewartha's classification of world climate. Global warming- Causes and environmental impacts. Applied climatology and Urban climate	

Basic Text & Reference Books:

- Barry, R.G. and Chorley P.J.: Atmosphere, Weather and Climate
- Critchfield, J.H.: General Climatology
- Das, P.K.: Monsoons
- Fein, J.S. and Stephens, P.N.: Monsoons
- India Met. Deptt.: Climatological Tables of Observatories in India
- Lal, D.S.: Climatology
- Lydolph, P.E.: The Climate of the Earth
- Menon, P.A.: Our Weather
- Peterson, S.: Introduction to Meteorology
- Robinson, P.J. and Henderson S.: Contemporary Climatology
- Thompson, R.D. and Perry : Applied Climatology, Principles and Practice



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Paper Code: UA03CGEO06	Total Credits: 3
Title Of Paper: Physical & Regional Geography of Gujarat	

Unit	Description in detail	Weightage (%)
1	Gujarat: Geographical profile Gujarat Location area, Geographical identity among other States of India, Size and political boundary of Gujarat.	
2	Major Physiographic divisions of Gujarat. The coastal low land and the desert The plains of Gujarat The plains of Saurashtra The Hills and highland regions.	
3	Drainage pattern Drainage pattern major river, Their Importance and Utilities, Types Irrigation Major multiple purpose of irrigation, Projects and their regional signification with special reference of Sardar Sarover Project.	
4	Impact of Climate Climate and climatic regions, Factors influencing climate of Gujarat, Temperature and rainfall condition regional variation and their impact on economic activities of Gujarat	
5	Soil & Agriculture Soil major types and their distribution, soil problems and their remedies, Major crops-Cotton, Tobacco, Groundnuts, Rice, wheat, Bajra etc. Characteristics of agriculture, Agricultural Problems and their remedies. Low productivity Drought Soil erosion.	

Basic Text & Reference Books:

- Dikshit, K.R.: Geography of Gujarat, National Book Trust, New Delhi.
- Dave, Manjula, B.: Gujarathi Pradeshik Aane Arthik Bhoogol, University Granth Nirman Board, Ahmedabad.
- Census of India: Gujarat Nakshama, University Granth Nirman Board, Ahmedabad.
- Gujarat Vishwakosh Trust: Gujarat (in Gujarati), Gujarat Vishwakosh Trust, Ahmedabad, 2000.
- Census of India: Gujarat Part II – A & B, General Census Tables.
- Bureau of Economics and Statistics, Government of Gujarat: Handbook of Basic Statistics, 1965.
- Directorate of Information, Government of Gujarat, Ahmedabad: Gujarat (latest).
- Directorate of Agriculture, Ahmedabad: Statistics of Principal Crops in Gujarat State (latest).
- Directorate of Industries, Government of Gujarat: "Industries in Gujarat", Handbook of Information, (Latest).



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Paper Code: UA03CGEO07	Total Credits: 3
Title Of Paper: Cartography – I	

Unit	Description in detail	Weightage (%)
1	Nature and scope of Cartography Historical Development of Cartography till modern period, Artistic and Scientific bases of Cartography. Cartography as a Science of human communication – Branches of Cartography, Recent trends in Cartography, Use of Computer and GIS in Cartography.	
2	Maps History of Maps – Types of maps – Classification of maps based scale and purpose. Use of maps Component s of Map: Scale, Map Projection, Conversational Sign, Map making in India, Brief History of Survey of India and its publications.	
3	Methods of relief: Various Methods of showing relief : Hachures, Shading, layer tints, contours, bench mark, spot height and trig point, Their Merits and Demerits.	
4	Weather instruments & Interpretation of Weather Maps Weather instruments, uses and the data collected from them. Significance of weather maps, Weather Symbols, Major activities of Indian Meteorological Department, Forecasting of weather, Recent Trends in weather forecasting use of satellites, remote sensing data and use of computer in weather measurement and forecasting	
5	Field work in Geography Importance of Fieldwork and laboratory work in Geography, The Different Approaches to Fieldwork, Design and Methodology of Field Work, Advantages of fieldwork, Collection of Information and data.	

Basic Text & Reference Books: -----

