

UNIVERSITY OF PUNE

Circular No. 221 of 1996

Subject :- Revised Syllabus at F.Y.B.A.,  
F.Y.B.Sc. & F.Y. B.Com in Geography.

In pursuance of the decision taken by the University authorities, it is hereby notified for the information of all concerned that the revised syllabus in Geography for F.Y.B.A., F.Y.B.Sc and F.Y.B.Com is as given in appendix 'A'.

This revised syllabus will be implemented from the Academic year 1996-97.

The Principals of all affiliated Colleges in Science where the Geography is taught are requested to bring the contents of this circular to the notice of all concerned teachers and students.

Ganeshkhind,  
Pune-411 007  
Ref.No. CB/S/Geography./575  
Date : 12.6.1996

  
for Registrar

To,

The Principals of all affiliated Colleges.

Copy f.w.cs.to for information :-

- 1) The Dean of all faculties.
- 2) The Principals of all affiliated College in Science
- 2) The Principals of all affiliated College in Science.
- 3) The Members of the Boards of Studies in Geography
- 4) The Dy.Registrar(Examination 1,2,3,4)
- 5) The Asstt.Registrar(Exam.Co-ordination Unit)
- 6) The Asstt.Registrar(Exam.S. & T. Unit)
- 7) The Asstt.Registrar(Eligibility)
- 8) The Asstt.Registrar (Records & Meetings)
- 9) The Public Relation Officer
- 10) The Law Officer,Pune-7
- 11) The P.A. to Registrar
- 12) The University Sub-Centres at Ahmednagar,Dhule & Nasik
- 13) The General Secretary PUTA-PUCTO
- 13) The Data Processing Unit,Pune-7
- 15) The Dy.Registrar, (Admission)

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- 17) The Asstt. Registrar (Admission)
- 18) The Section Officer, (External)
- 19) The Section Officer, (Affiliation)
- 20) The Section Officer (Recognition)
- 21) The Asstt. Registrar (Strong Room)

Authority : B 31/PA/31/96 dt. 19.2.1996 & 7/8.3.1996  
D 31/96

SYLLABUS FOR F.Y.B.A./B.Sc./B.Com  
FOR GEOGRAPHY

A) COURSES FOR F.Y.B.A.

Gy 110 : Elements of Physical Geography

SECTION I

Unit	Sub-Unit	No of Periods
1. Introduction to Physical Geography	Definition, Nature and scope of Physical Geography	4
	Importance of Physical Geography within the discipline of Geography	
2. The Earth	Its interior, Composition and structure	
	Origin of continents and ocean basins	06
3. Rocks	Difference between rocks and minerals classification of rocks.	04
	Characteristics of igneous, sedimentary & metamorphic rocks with Indian examples.	
4. Evolution of landforms	a) Earth movements folds & faults Associated land forms as fold mountains, Block mountains, Rift valley	06
	b) Volcanic activities & earthquakes, causes and effects of volcanism types of volcanoes, associated landforms as cones, crater and caldera.  Major earthquake belts of the world seismic waves, Tsunamis.	
5. Weathering	Meaning, types & examples Mechanical, chemical, Biological weathering.	02

6. Denudation agents	Three fold work of following denudation agents	
	a) work of river & associated land forms	12
	b) Work of glaciers & associated land forms	
	c) Work of wind & associated land forms.	
	d) work of sea waves and associated land forms	

SECTION II

7. Atmosphere	Difference between weather and climate. Composition and structure of atmosphere.	03
8. Insolation	Factors affecting the distribution of solar energy. Heat budget of the earth. Factors affecting the horizontal distribution of temperature. Inversion of temperature, Lapse Rate	06
9. Atmospheric pressure and wind system	Vertical & Horizontal distribution of pressure, formation of pressure belts and their relation with winds	08
	Types of winds planetary & periodic (Monsoon) only) winds their associated weather.	
10. Atmospheric moisture & precipitation	Hydrological cycle & sources of moisture. Types of humidity-Relative & Absolute humidity	06
	Condensation & Forms of precipitation. Rain, snow, Mist, Dew, Frost, Fog, Clouds.	
11. Climatic classification	Principles of Koppen & Thornwaite classification.	02

SECTION III

- 12.
12. Submarine relief of ocean      General idea of submarine relief      03  
 Description with diagram of ocean floor of Indian ocean.
13. Coasts      Coasts of submergence & emergence      01  
 Half Nehrung coast, fiord coast  
 Dalmation coast, Ria, coast changes in sea level.
14. Salinity & movement of ocean water      Meaning of salinity/salinity of oceans, seas and lakes.      06  
 ocean currents causes of currents-causes of formation
- Ocean currents in Indian ocean, pacific ocean & Atlantic ocean  
 Effects of ocean currents.
15. Marine deposits      Terrigenous and pelagic deposits      02      02

## List of books

- 1) Physical Geography - A.N. Strahler
- 2) Morphology & Landscape - H. Robinson
- 3) Physical Geography - Philip Lake
- 4) Introduction to climate - G.T. Trewartha
- 5) General climatology - H.J. Critch Field

2) COURSES FOR F.Y.B.SC.

## Gj 110 : Paper I Course : Morphology &amp; Landscape

## Section I

Unit	Sub-Unit	No. of periods
1.	Introduction to Physical Geography Physical Geography Definition, nature & scope Importance of Physical geography within the discipline of geography Features of land & water distribution on the earth	08
2.	The Earth Interior of the earth its composition & structure	
	Origin of continents and ocean basins	
	1) Wanger's continental Drift Theory	08
	2) Plate tectonics	
	3) Ho,me's convection current Theory	
	4) Theory of Isostasy	
3.	Rocks & Minerals Difference between rocks and minerals classification of rocks into three major types formation & characteristics of igneous Sedimentary and metamorphic rocks with Indian examples minerals-Definition & Types metallic & non-metallic.	08
4.	Evolution of Land forms- Diastrophism	
	a) Crustal Movements Internal forces (slow forces & sudden forces) folds-Open folds, fan folds, overfold. Fault-Normal fault, steplike fault associated landforms due to folding & faulting-Block, Mountain, fold mountain, Rift Valley.	08
	b) Earthquakes-causes & effects of earthquakes major earthquake belts, of the world seismic waves & Tsunamis. Volcane Activities-causes & effects of earthquakes	

major earthquake belts, of  
of the world seismic waves &  
effects of volcanism, types  
of volcanoes, associated  
landforms as cones crater,  
caldera

- 5. Evolution of landforms
  - Formation of slope-Davis theory.
  - major landform evolution-
  - mountains-Orogenesis and
  - geosyncline
  - Plateaus - 1) Continental
  - 2) Intermontant 3) Piedmont.
  - Plains- Depositional, Coastal &
  - Destruction

SECTION - II

- 6. Denudation
  - Weathering & erosion-Meaning &
  - difference.
  - Types of weathering-Mechanical
  - Chemical & Biological weathering
  - Mechanism of Granular disintegration
  - Exfoliation, Block disintegration,
  - Shattering, Freeze thaw process,
  - Carbonation, oxidation, Hydration,
  - solution, spheroidal weathering 06
- 7. Denudation
  - Threefold work of following
  - denudation agents (Erosion,
  - transportation & deposition.
- a) Work of river
  - Running water-Volume, load &
  - velocity. 10
  - Mechanism of river erosion-
  - Hydraulic action, corrosion,
  - solution, attrition.
  - Landforms associated with river
  - erosion and deposition with
  - Indian examples Davisian cycle of
  - erosion.
- b) Work of Glaciers.
  - Work of glaciers-Mechanism of
  - Moving Ice.
  - Erosional work of glaciers and
  - associated land forms.
  - Depositional work of glaciers
  - and associated landforms. 06
- c) Work of wind
  - Work of Wind-Mechanism of wind
  - erosion(Deflation,abrasion,attrition)
  - work of wind & associated land forms
  - Depositional work of wind & associated
  - landforms. 06

d) Work of sea waves	4) Work seawaves- Mechanism of wave erosion (forewash & backwash Hydraulic pressure, collision & breaking of the waves.) wave erosion and associated land forms wave deposition landforms.	04
e) Work of underground	5) Mechanism of the work of underground water-solution, deposition & petrification erosional work of underground water and associated landforms.  Depositional work of underground water & associated landforms.	04
f) Karst topography	Karst topography & cycles of development of karst topography	04

List of books :-

- 1) Physical Geography - A.N. Strahler
- 2) Physical Geography - Philip Lake
- 3) Principles of Physical Geography - A Dasgupta & A.N. Kapoor
- 4) Principles of Physical Geography - F.J. Monkhouse
- 5) Morphology & Landscape - H. Robinson
- 6) Physical Geography - Enayat Ahmed
- 7) Rudiments of Physical Geography - D.K. Singh, N.N. Bhattacharya
- 8) Fundamentals of Physical Geography - Trewartha, Robinson & Hammond.



c) COURSE FOR F.Y.B.SC.

Gg 120 : Paper II : Climatology & Oceanography

Unit	Sub-Unit	No. of periods
1. Climatology	Definition nature & scope Importance of climatology with the discipline of geography	04
2. Atmosphere	Difference between weather & climate Elements of weather & climate composition and structure of atmosphere	02
3. Insolation	Factors affecting the distribution of solar energy, Heat budget of the earth factors affecting the horizontal distribution of temperature. Inversion of temperature and lapse Rate.	09
4. Atmospheric pressure & wind system	Vertical & Horizontal distribution of pressure, formation of pressure belts & their relation with winds concept of pressure gradient. Types of winds-Planetary periodic winds, mountain & valley winds, land & sea breezes, monsoon winds, Local winds Febn & Föhn winds.	08
5. Atmospheric moisture & precipitation	Hydrological cycle and sources of moisture Types of humidity Absolute & Relative humidity. Condensation and forms of precipitation Rain, snow Dew, frost, Hail, Fog, Clouds Types of clouds- High, medium & low clouds.	08
6. Airmasses	Definition, origin, fronts & frontal Zones of airmasses and associated weather conditions	04
	Cyclones-Tropical & Temperature : Anticyclones associated weather conditions	04
	Cyclones-Tropical & Temperature : Anticyclones associated weather conditions	04
7. Climatic classification	Basic Principles of Koppen & Thorn Vaite's climatic classification	02

Section II : Oceanography

8. Oceanography	Definition, nature and scope importance of oceanography within the discipline of geography, Importance of oceanography during modern times.	06
9. Submarine Relief.	General idea of submarine relief continental shelf, continental slope Abyssal plains, Oceanic trenches & deeps, Hypsographic curve.	04
10. Coasts	Submergence & emergence of coasts Half Nehrung coast, fiord coast, Dalmation coast, Ria coast changes in sea level & their effects on the coastland with examples	04
11. Characters of	Salinity of ocean water its meaning, causes of salinity, salinity of oceans, seas & lakes with examples.	06
12. Movements of Ocean water	Temperature of ocean water	01
	Waves, currents, & tides Types of waves-Oscillation, compound and t translation. Height of waves & wavelength. Ocean currents causes of formation. Ocean currents of Atlantic, Pacific, & Indian ocean Effects of ocean currents	06
13. Marine deposits	Terrigenous & pelagic deposit	02
	Tides - Main types, causes of tides equilibrium theory of tides Effects of tides	05

List of Books :

- 1) Introduction to climate - G. Trewarsh
- 2) General climatology - Clitchfield H.J.
- 3) Physical Geography - A.N. Strahler
- 4) Physical geography - Philip Lake
- 5) Principles of Physical  
Geography - A Dasgupta & A.N. Kapoor
- 6) Oceanography - contemporary - P. Gordon Firie  
readings in ocean sciences.
- 7) Oceanography for geographers - R.C. Sharma & M.Vatai
- 8) Oceanography for geographers - C.A.M. King

7. Toposheet	At least one from each of the following	12
	1) Mountainous 2) Plateau	
	3) Plain	
8. Weather maps	I.M.D. Weather symbols	04
9. Isolines	Isobars, Isotherms, Isohyets (Drawing of above isolines at least one example from each type)	04
10. Isobaric patterns	Drawing of following isobaric patterns - cyclone, Anticyclone, Ridge, trough weather characters of above patterns.	06
11. Weather Instruments	a) Measurement of temperature 1) Maximum & Minimum thermometers.  2) Thermograph  b) Measurement of humidity 1) Dry & Wet bulb thermometer  c) Measurement of pressure 1) Aneroid Barometer 2) Barograph  d) Measurement of wind velocity & direction 1) Wind vane 2) Cup Anemometer  e) Measurement of rainfall Rain gauge	10
12. Representation of weather data	Representation of weather data Line and Bar Graph, Wind Rose	04
13. Weather map reading	Reading of weather maps of 3 seasons  1) Summer 2) Winter 3) Monsoon season	12
	Weather forecasting (information only)	

List of Books

1) Mapwork & Practical Geography	- Singh & Singh
2) Practicals in Geography	- Singh & Datta
3) Practical Geography	- Dr. D.S. Negi
4) Map Interpretation	- F. Fannurthy

D) PRACTICAL COURSE FOR F.Y.--SC.

Sg 101 : Paper-Map Reading &amp; Weather Instruments

## SECTION I

1) Map	Definition, elements of map (scale direction, projection, use of colours conventional signs & symbols)	04
2. Toposheet	Index Number, marginal information, grid reference, Administrative Index, Conventional signs & symbol (S.O.I.) Information about following sheets  1) Million sheet 2) 1:50000 3) 1:25000 4) One Inch, Half inch & Quarter Inch toposheets.	04
3. Scales	Definition types (Statement, R.F. & Graphical) conversion of V.S. into R.F. & R.F. into V.S. (At least 4 examples for each conversion) Exercise on simple graphical scale only.	04
4. Profiles	Cross profile, Longitudinal profile & Intervisibility	04
5. Relief	Methods of relief representation Qualitative & Quantitative-Hachures Hill shading, contours formlines- spot height, T.M. Triangulation station, Layer tints.  Drawing of contour diagrams of following 1) Hill 2) Spur 3) V Shaped Valley 4) Plateau 5) Mountain pass 6) Cliff 7) Gorge 8) U Shaped valley 9) Waterfall 10) Ridge	04           04
6. Slopes	Measurement methods - Degrees Mills Types-Convex, concave, Uniform & Terraced, Gentle slope and steep slope	

E) COURSES FOR F.Y.B.COM

COMMERCIAL GEOGRAPHY

SECTION I

- |  |  |    |
|--|--|----|
| 1. Introduction                          | Geography- meaning & its relation with Commerce & Commercial Geography - Nature and scope<br>Approaches of commercial Geography  | 04 |
| 2. Geographical Environmental & Commerce | Relationship between geographical environment and Commerce, Economic activities Determinism & possibilism physical environment - Location, size & shape of the country relief, climate, waterbodies soils, vegetation, animals, minerals. Cultural environment settlements transport communication & technology  | 08 |
| 3. Resources                             | Meaning nature & use of resources forest & commerce - Temperate & Tropical forest characteristics, distribution & use of temperate & tropical forests.<br><br>Farming- Subsistence & commercial farming commercial farming in India Plantation & truck farming in India  | 04 |
| Minerals &                               | Characteristics, use, distribution & trading of following minerals Iron, copper, Bauxite<br><br>Power resources- Nature & Importance during modern times, potential & production trends at present.<br><br>1) Coal 2) Mineral Oil 3) Hydal Power 4) Atomic power<br><br>Importance of non-conventional energy resources sun, wind wave & geothermal energy | 04 |
| 4. Population                            | Man as a resource<br>Population characteristics of India. Levels of population- Underpopulation, Optimum population & Over population  | 04 |

Section II

6. Industries	Role industries in Economic development. Factors of industrial location- Raw material, power, market, transport & communication, land capital, technology	01 06
	Webers theory of Industrial location Iron & steel industry - India & USA cotton textile industry - India & USA Engineering industry -India only Major industrial regions of the world & India	02 03
7. Transportation	Role of transportation in commercial development comparison of various types of transportation & costs of transportation Major ocean routes of the world	02
8. International Trade	Geographical factors affecting international trade. International organizations related to commerce 1) OPEC 2) GATT 3) G-15 4) EEC x India's internal & foreign trade	06 04
9. Tourism	Tourism- Geographical factors influencing tourism  Tourist industry & Commerce  Scope of tourism in India	04  02 02

List of Books

1) Commercial Geography	- Sir Dudley Stamp
2) Fundamentals of Economic Geography	- Van Royen & Bengston
3) Economic Geography	- Alexander J
4) Economic Geography	- & Jones & Darkenwald.

5. Cartographic

Data representation by following  
cartographic diagrams

08

- 1) One dimensional - Linear &  
Bar graph
- 2) Two dimensional - Circles &  
Squares
- 3) Three dimensional- spheres & cubes