

AC: 20.022019

Item No. 2.28



**Rayat Shikshan Sanstha's
KARMAVEER BHAURAO PATIL COLLEGE, VASHI,
AUTONOMOUS COLLEGE**

Sector-15- A, Vashi, Navi Mumbai -400 703
NAAC Grade "A+" with CGPA 3.53

Revised Syllabus

Program: S.Y.B.A.

Course: Geography

Semester: III and IV

(As per Credit Based Semester and Grading System
with effect from the academic year 2019-20)

Rayat Shikshan Sanstha's
Karmaveer Bhaurao Patil College, Vashi
(Autonomous College)
Department of Geography
Program: SYBA
Course: Geography

Details of course wise credits

Semester	Course Code	Course Title	Paper No	Credit
III	UGGEO 301	An Introduction to Climatology	II	03
	UGGEO 302	Physical Geography of India	III	03
IV	UGGEO 401	An Introduction to Oceanography	II	03
	UGGEO 402	Agricultural Geography of India	III	03
Total Credits				12

S.Y.B.A. GEOGRAPHY PAPER- II
AN INTRODUCTION TO CLIMATOLOGY
SEMESTER: III COURSE CODE: UG GEO 301, Credits: 03

COURSE OUTCOMES:

After successfully completion of this course, Students will be able to....

1. Understand the basic concepts of climatology, air pressure and atmospheric circulation, humidity and precipitation.
2. Explain the nature, scope and importance of climatology.
3. Distinguish between weather and climate.
4. Describe the composition and structure of atmosphere.
5. Classify the various types of winds including global, regional and local winds.
6. Predict the distribution of rainfall
7. Relate the El Nino and Indian monsoon.
8. Evaluate the causes and consequences of global warming and climate change.
9. Construct the various climatic diagrams.
10. Predict the isobaric pattern of atmosphere.
11. Interpret the weather maps with the help of signs and symbols.
12. Determine the principles, working of weather instrument and their procedure.

Units	Name of the Sub Topic	No of Lectures
Unit- I Introduction to Climatology		
1.1	Definition, nature, scope and branches of climatology	12
1.2	Concept and elements of weather and climate	
1.3	Composition and structure of atmosphere	
1.4	Insolation: Vertical and horizontal distribution of temperature	
Unit – II Air Pressure and Atmospheric Circulation		
2.1	2. 1 Air pressure: Influencing factors – Tricellular model	12
2.2	2.2 Horizontal distribution of air pressure	
2.3	2.3 Wind: Types of winds – global, regional and local	
2.4	2.4 Upper air circulation – jet stream (concept, origin and effects)	
Unit – III Humidity and Precipitation		
3.1	3.1 Humidity: Types - absolute, relative and specific	12
3.2	3.2 Condensation and its form	

3.3	3.3 Precipitation and its types	
3.4	3.4 Global distribution of rainfall	
Unit – IV Climate and Weather Phenomena		
4.1	4.1 Cyclones: tropical and temperate	12
4.2	Anti-cyclones and tornados	
4.3	El Nino and Indian monsoon	
4.4	Global warming and climate change	
Unit – V Practical Component		
5.1	Isobars ad Isobaric Pattern: Cyclone Anticyclone, Secondary cyclone, Trough, Wedge, Col	12
5.2	Construction of wind rose, climograph and hythergraph	
5.3	Weather signs and symbols, Interpretation of IMD weather charts Weather instruments	

REFERENCES:

1. Ahrens, C.D. (2012): Essentials of Meteorology: An Invitation to the Atmosphere; Cengage Learning, Boston
2. Ahrens, C.D., Jackson, P.L., Jackson, C.E.J. and Jackson, C.E.O. (2012): Meteorology Today: An Introduction to Weather, Climate and the Environment; Cengage Learning; Boston
3. Barry, R.G. and Chorley, R.J. (2003): Atmosphere, Weather and Climate; Psychology Press, Hove; East Sussex.
4. Chawan S.V. (ed) (2015): Physical Geography, Paper I, Published by Director (I/C), Institute of Distance and Open Learning, University of Mumbai.
5. Critchfield, H.J., (1975): general Climatology, Prentice Hall, New Jersey.
6. Lal D.S. (1997): Climatology; Sharda Pustak Bhavan; Allahabad
7. Lydolph, P.E.(1985): The Climate of the Earth, Rowman Nad Allanheld, Totowa, New Jersey.
8. Mather,J.R.(1974): Climatology: Fundamentals and Applications; Mc Craw Hill Book Co., U.S.A.
9. Matthews, W. H., Kellogg, W., Robinson, G.D. (1971): Man’s Impact on Climate; M.I.T. Press Design Dept. U.S.A.
10. Oliver, J.E. (1993): Climatology: An Atmospheric Science, Pearson Education India, New Delhi
11. Rosenberg, N.J., Blad, B.L., Verma, S.B.(1983): Micro-climate Biological Environment; John Wiley & Sons, U.S.A.
8. Rumney, G.R. (1968): Climatology and the World Climates, Macmillan, London.
9. Shinde P. ; Pednekar H. et.al. (2010): Introduction to Geography, Sheth Publishers Pvt.Ltd., Mumbai.
10. Subrahmanyam, V.P. (ed) (1983): Contributions to Indian Geography a) Vol III- General Climatology, b) Volume IV- Applied Climatology. Heritage Publishers, New Delhi.
11. Trewartha, G.T. (1980): An Introduction to Climate; McGraw Hill, New York, 5th edition, (International Student Edition)

S.Y.B.A. GEOGRAPHY PAPER- III
PHYSICAL GEOGRAPHY OF INDIA
SEMESTER: III COURSE CODE: UG GEO 302, Credits: 03

COURSE OUTCOMES:

After successfully completion of this course, the Students will be able to ...

1. Recall the previous terms and concepts of India.
2. Summarize the physiographical divisions of India with their characteristics.
3. Recall the names of rivers flow all parts of the country with their tributaries.
4. Compare the drainage system and climate change.
5. Prepare the list of rivers along with their tributaries, source, total length, captured area.
6. Identify the seasons of India and predict the distribution of rainfall.
7. Represent the distribution map of soils with their characteristics.
8. Understand the problems associated with soils and suggest remedies measures.
9. Classify the various types of natural vegetation
10. Interpret the spatial distribution of minerals and suggest methods conservation methods of soil.
11. Determine the appropriate locations and fill the geographical features in the outline map of India.
12. Construct the graphical scale with the help of given scale.
13. Analyze the drainage pattern by various methods with the help of toposheets.

Units	Name of the sub Topics	No of Lectures
Unit – I Introduction of India		
1.1	India: Location , extent and significance	12
1.2	Introduction to physiography of India	
1.3	Mountainous region of India	
1.4	North Indian plains	
1.5	Peninsular plateau of India	
Unit – II Drainage and Climate		
2.1	introduction to drainage system	12
2.2	Major Himalayan rivers of India	

2.3	Major Peninsular Rivers of India	
2.4	Major lakes of India	
2.5	Seasons in India	
Unit – III Soils and Natural Vegetation		
3.1	Classification of soils of India	12
3.2	Problems associated with soils and its remedies in India	
3.3	Classification of Forest in India	
3.4	Importance of Forest in Indian context	
3.5	Causes and effects of Deforestation and their remedial measures	
Unit – IV Mineral and Power Resources		
4.1	Distribution of Metallic Minerals in India: Iron ore, manganese, bauxite and copper.	12
4.2	Distribution of Non-Metallic Minerals in India: Mica, limestone, gypsum, clay and other important minerals	
4.3	Distribution of Power Resources : Coal, mineral oil and natural gas, thorium and uranium	
4.4	Depletion and conservation of minerals and power resources in India	
Unit – V Practical Component		
5.1	Map filling: Showing geographical features in the Map of India	12
5.2	Map Scale – Types, Conversion and drawing	
5.3	Topological analysis of drainage networks by using Strahler's and Horton's method	

REFERENCES

1. Deshpande C.D. (1992): India: A Regional Interpretation, Northern Book Centre, New Delhi.
2. Bharucha, F.R. (1983): A text book of the plant geography of India, Oxford University Press, Bombay.
3. Dikshit, K.R.(1991): Environment, Forest Ecology and man in the Western Ghats- The Case of Mahabaleshwar Plateau, Rawat Publications, New Delhi.
4. Forest Survey of India: State Forests Reports, Dehradun.
5. Khullar, D.R. (2014): India: A Comprehensive Geography; Kalyani Publishers
6. Miller, R.W. et al. (1995): Soil in Our Environment, Prentice hall, U.S.A.
7. Raychudhari, S.P.(1958): Soils of India, ICAR, New Delhi
8. Robinson, F (ed.) (1989): The Cambridge Encyclopedia of India, Pakistan,
9. Bangla desh and Sri Lanka, Cambridge University Press.
10. Savindra Singh (2006) : Physical Geography of India ; Pravalika Publications, Allahabad.
11. Sharma T.C. (2013) Economic Geography of India; Rawat Publications, New Delhi.
12. Shinde P. ; Pednekar H. et.al. (2010): Introduction to Geography, Sheth Publishers Pvt.Ltd., Mumbai.
13. Shinde P. ; Pednekar H. et.al. (2011): Economic Geography of India, SYBA paper II Sheth Publishers , Pvt.Ltd., Mumbai

14. Singh, R.L. (1971): India-A Regional Geography, National Geographical Society of India, Varanasi.
15. Tirth, R (1996): Geography of India, Rawat Publications, Jaipur.
16. Majid Hussain (2014, 5th edition): Geography of India, McGraw Hill Education (India) Private Ltd, Uttar Pradesh..

S.Y.B.A. GEOGRAPHY PAPER- II
AN INTRODUCTION TO OCEANOGRAPHY
SEMESTER: IV COURSE CODE: UG GEO 401, Credits: 03

PROGRAM OUTCOMES:

After successful completion of this course, the Students will be able to ...

1. Investigate the origin and development of oceanography.
2. Understand the meaning, definition, nature and scope of oceanography.
3. Classify the branches of oceanography.
4. Identify the major oceans with their location and characteristics.
5. Explain the ocean floor, composition of ocean water.
6. Determine the factors affecting ocean water temperature and their distribution.
7. Define salinity and determine the factors affecting salinity and their distribution.
8. Define waves and illustrate formation and types of waves.
9. Discuss about the formation of tsunami with their causes and consequences.
10. Discuss about the concept of tides, their types and equilibrium theory of tides.
11. Classify the ocean currents of major oceans it includes warm and cold current.
12. Explain the El Nino and La Nina concept and identify the factors that affect on ocean.
13. Compare and contrast man and ocean relationship in respect to coral reefs, marine ecosystem and global climate change.
14. Identify the various sign and symbols related to oceanography and fill in the map of World in respect to coastal areas.
15. Interpret the bathymetric map in respect to name of the jetty, name of the surveyor, date, datum, vegetation, settlements and depth of oceans.

Units	Name of the sub Topics	Na of Lectures
Unit- I Nature of Oceanography		12
1.1	Origin and development of oceanography	
1.2	Oceanography : meaning, definition, nature and scope	
1.3	Branches of oceanography: physical chemical and biological	

1.4	Introduction to Major Oceans	
Unit – II Bottom Relief and Ocean Water		
2.1	Ocean floor and its characteristics	12
2.2	Composition of ocean water	
2.3	Factors affecting ocean water temperature	
2.4	Distribution of ocean temperature	
2.5	Factors affecting salinity of ocean water	
2.6	Distribution of oceanic salinity	
Units	Name of the sub Topics	Na of Lectures
Unit – III Movements of Ocean Water		
3.1	Waves- Formation and types	12
3.2	Tsunami and its effect	
3.3	Concept and types of Tides	
3.4	Equilibrium theory of Tides	
3.5	Major Ocean Currents – types and their effects	
Unit – IV Man and Ocean		
4.1	El- Niño and La-Niña phenomenon	12
4.2	Coral reefs and their importance	
4.3	Marine Ecosystem	
4.4	Marine pollution	
4.5	Oceans and global climate change	
Unit – V Practical Component		
5.1	Map filling : Related to Oceanography	12
5.2	Signs and symbols of bathymetric maps	
5.3	Reading and Interpretation of navigation charts and bathymetric maps	

REFERENCES:

1. Bhatt, J.J. (1978): Exploring the Planet Ocean, D.VonNostrandCo.New York.
2. Birla Economic Research Foundation, economic Research Division (1992): The Oceans, Allied Publishers Ltd. New Delhi.
3. Chandra, S. and Others (eds).(1993): The Indian Ocean and its islands: Strategic Scientific and Historical perspectives, sage Publications, New Delhi.
4. Chawan S.V. (ed) (2015): Physical Geography, Paper I, Published by Director (I/C), Institute of Distance and Open Learning, University of Mumbai.
5. Fairbridge, R.W.ed) Encycloepadia of Oceanography, Reinholt, New York.
6. Sharma, R.C. (ed)(1985): The Oceans: realities and Prospects, Rajesh Publications, New Delhi.
7. Sengupta,R. and Desa E,(eds) (2001): The Indian Ocean: A Perspective Vol.,I and II Oxford and IBH Publishing Company Private Limited, New Delhi.
8. Paul, P.R.(1998): Invitation to Oceanography, Jones and Bartlett Publishing, Sudbury, Massachusetts.

9. Rajgopalan, R (ed) (1996): Voices for Oceans, A Report to the Independent World Commission on the Oceans, International Ocean Institute, Operational centre, Madras, India.
10. Qasim, S.Z(1998): Glimpses of Indian Ocean, Universities Press(India) Limited, Hyderabad.

S.Y.B.A. GEOGRAPHY PAPER- III
AGRICULTURAL GEOGRAPHY OF INDIA
SEMESTER: IV COURSE CODE: UG GEO 402, Credits: 03

PROGRAM OUTCOMES:

After successfully completion of this course, the Students will be able to ...

1. Define the term agricultural geography and explain the nature and scope.
2. Understand the various approaches which relates to the agricultural geography.
3. Understand agriculture is main backbone of Indian economy and development of any countries based on agriculture.
4. Examine the factors that affect on agriculture and suggest measures.
5. Understand the Indian agriculture gamble against the rainfall so water is required, therefore learners will be classify sources of irrigation and to create awareness.
6. Introduce the salient features of agriculture in respect to types of farming.
7. Agricultural pattern are different in different regions, learners will be understand and examine the requirement of climatic factors.
8. Agricultural pattern always change according area to area, learners will be predicted problems related to agriculture it including water pollution, soil erosion, water logging, decreasing fertility of land etc.
9. Introduce white and green revolution with their components and learners will be examined impact of green revolution on agriculture.
10. Explain the sustainable agriculture and learners will be apply various method for sustainable agriculture.
11. Interpret the thematic maps which are related to cropping pattern, distribution of rainfall, crop diversification, crop concentration, types of farming etc.
12. Calculate the various methods of cropping like crop concentration, crop diversification and crop combination.
13. Learners will be understand recent trends in agriculture.

Units	Name of the Sub Topics	No of Lectures
Unit – I Introduction to Agricultural Geography		
1.1	Definition, nature and scope of agricultural geography	12
1.2	Approaches: regional approach, systematic approach, commodity approach, recent approaches	
1.3	Importance of agriculture in Indian economy	
1.4	Influencing Factor of agriculture	
Unit – II Irrigation Scenario		
2.1	Importance of Irrigation	12

2.2	Sources of Irrigation	
2.3	Major Canals	
Unit – III Introduction to Indian Agriculture		12
3.1	Salient features of Indian agriculture	
3.2	Types of farming in India	
3.3	Major crops of India	
3.4	Agro- climatic regions of India	
3.5	Problems associated with Indian agriculture	

Unit – IV Green and White Revolution in India		12
4.1	Introduction to Agricultural Revolution (Green and White)	
4.2	Components of Green and White Revolution	
4.3	Impact of Green Revolution	
4.4	Need for sustainable agriculture in India	
Unit – V Practical Component		12
5.1	Interpretation/ question- answer on thematic maps related to agriculture of India (NATMO and other)	
5.2	Crop Concentration and Diversification	
5.3	Crop Combination	

REFERENCES:

1. Bansil, B. C. (1975): ‘Agricultural Problems of India’, Delhi.
2. Bayliss Smith, T.P. (1987) : The Ecology of Agricultural Systems. Cambridge University Press, London .
3. Berry, B.J.L. et. al.(1976) : The Geography of Economic Systems. Prentice Hall, New York.
4. Gregor, H.P.: Geography of Agriculture. Prentice Hall, New York, 1970.
5. Grigg, D. (1984): ‘An Introduction to Agricultural Geography’, Hutchinson Publication, London
6. Grigg, D.B.(1974) : The Agricultural Systems of the World. Cambridge University Press, New York.
7. Hartshorn, T.N. and Alexander, J.W. (1988): Economic Geography. Prentice Hall, New Delhi.
8. Morgan W.B. and Norton, R.J.C. (1971): Agricultural Geography. Mathuen, London,
9. B Boulede..(1978): Agriculture in the Third World - A Spatial Analysis. Westview Press,
10. Sauer, C. O. (1952): ‘Agricultural Origins and Dispersals’, American Geographical Journal
11. Sauer, C.O.(1969): Agricultural Origins and Dispersals. M.I.T. Press, Mass, U.S.A.

12. Singh J.(1997): Agricultural Development in South Asia: A Comparative A Study in the Green Revolution Experiences, national Books Organization, New Delhi.
13. Singh, J. and Dhillon, S. S. (1984): ‘Agricultural Geography’, McGraw Hill, New Delhi.

Rayat Shikshan Sanstha’s
Karmaveer Bhaurao Patil College, Vashi
(Autonomous College)
SYBA Geography Paper- II and III
Evaluation Pattern

SCHEME OF EXAMINATION:

The performance of the learners shall be evaluated into two parts viz continuous Internal Evaluation and Semester End examination. In both semester internal assessment with 40% marks and semester End Examinations with 60% marks. The allocation of marks for the Continuous Internal Assessment and Semester End Examinations are as shown below:-

CONTINUOUS INTERNAL ASSESSMENT- 40 MARKS

Practical Component will ask for Internal Examination and it will be conducted separately

Evaluation type	Marks
Internal Evaluation	40
a. Practical + Journal	20
b. Class Room Presentation	10
c. Field Visit and report writing Viva Assignments PPT presentation Quiz competition Online courses Knowledge sharing Innovative Ideas Active participation	10

SEMESTER END EXAMINATION- 60 MARKS

- Duration – 2 Hours for each paper.
- There shall be eight questions each question and each questions carry 15 marks.
- All questions shall be compulsory with internal choice within the questions.
- Questions shall be subdivided into sub-questions

Questions	Sub-questions	Questions	Marks
1	a) OR b)	Based on Unit - I	15
2	a) OR b)	Based on Unit – II	15
3	a) OR b)	Based on Unit – III	15
4	a) OR b)	Based on Unit – IV	15