

Detailed Syllabus in Geography for B.A/ B. Sc Semester- III under CBCS for the Examination to be held in 2018, 2019, and 2020

Course Code: UGOTC- 301 (Theory Core)

Title: Physical Geography- II

Credits: 4 Total Marks: 100

Duration: 2½ Hours

End Semester Exam: 80

Internal Assessment: 20

Note: The objective of the course is to introduce the latest concepts in Physical Geography especially in Climatology and Oceanography to the students of Geography.

Section- A (Climatology)

Unit- I

- 1.1 Climatology: Definition and Elements of Weather and Climate.
- 1.2 Composition and Structure of Atmosphere.
- 1.3 Factors affecting Distribution of Insolation and Global Heat Budget.
- 1.4 Temperature: Vertical and Horizontal distribution of Temperature.

Unit- II

- 2.1 Atmospheric Pressure: Vertical and Horizontal distribution of Pressure.
- 2.2 Winds: Causes and Types of Winds.
- 2.3 Humidity: Concept, Types of Humidity and Precipitation.
- 2.4 Clouds: Formation and Types of Clouds.

Unit- III

- 3.1 Air Masses: Concept, Factors and Classification of Air Masses.
- 3.2 Fronts: Origin and Types of Fronts.
- 3.3 Cyclones: Causes and Distribution of Tropical and Temperate Cyclone.
- 3.4 Climatic Classification: Basis and Types of Koppen's Climatic Classification.

Section- II (Oceanography)

Unit- IV

- 4.1 Configuration of Ocean Floor: Continental Shelf, Continental Slope, Deep Sea Plain and Ocean Deep.
- 4.2 Oceanic Temperature: Vertical and Horizontal distribution of Temperature.
- 4.3 Oceanic Salinity: Factors and Distribution of Salinity.
- 4.4 Oceanic Currents: Causes and Types of Atlantic and Indian Ocean Currents.

Unit- V

- 5.1 Tides: Origin and Types of Tides.
- 5.2 Coral Reefs: Origin and Types of Coral Reefs.

5.3 Ocean Deposits: Sources, Types and Classification of Ocean Deposits.

5.4 Global Warming: Causes and Effects of Global Warming.

Note for Paper Setting:

The question paper shall comprise of three sections i.e. A, B and C. Section A and B are compulsory. Section- A comprises of Five (5) Short Answer Type questions representing all units/ syllabi (At least one question from each unit) with a limit of 70 to 80 words and having Three (3) marks for each question. Section- B comprises of Five (5) Medium Answer Type questions representing all units/ syllabi (At least one question from each unit) with a limit of 250- 350 words and having Seven (7) marks for each question. Section- C comprises of Four or Five (4/5) Long Answer Type questions representing all units/ syllabi. Candidates shall be required to attempt two (2) questions of fifteen (15) marks each. Answer should be limited to 500- 600 words for each question.

Books Recommended:

Climatology:

1. Barry R.G AND Chorley R.J, "Atmosphere, Weather and Climate" Routedge, 1998.
2. Critchfield J. Howard, "General Climatology", Pearson Education, Singapore, Fourth Edition.
3. Hyman Andrew, "Climatology: An Atmospheric Science", Callisto Reference, 2016.
4. Lal D.S, "Climatology", Sharda Pustak Bhawan, Allahabad, 2011.
5. Singh Savindra, "Physical Geography", Pravalika Publications, Allahabad, 2013.
6. Trewartha G.T, "An Introduction to Climate", International Students Edition, McGraw Hill, New York, 1980.

Oceanography:

1. Garrison Tom, "Essentials of Oceanography", Brooks/ Cole, 2000.
2. Grald S, "General Oceanography- An Introduction", John Willey and Sons, New York, 1980.
3. King L.C, "Oceanography of Geographers", E. Arnold, London, 1975.
4. Lal D.S, "Oceanography", Sharda Pustak Bhawan, Allahabad, 2003.
5. Singh Savindra, "Physical Geography", Pravalika Publications, Allahabad, 2013.
6. Trujillo P. Alan and Thurman V. Harold, "Essentials of Oceanography", Pearson Education India, Eleventh Edition, 2015.

Detailed Practical Syllabus in Geography for B.A/ B. Sc Semester- III under CBCS for the Examination to be held in December 2018, 2019 and 2020

Course Code: UGOPC- 302 (Practical Core)

Credits: 2

Title: Map Projections

Total Marks: 50

Internal: 25

External: 25

Unit-I

- 1.1. Difference between Globe and map
- 1.2. Calculation of graticule (longitude and latitude)
- 1.3. Definition and need of map projections
- 1.4. Methods of transfer of graticule on flat sheet of paper.

Unit-II

- 2.1. General Principles of Map projections.
- 2.2. Need and Importance of map projection.
- 2.2. Classification of Map Projection.
- 1.3. Choice of Map Projections

Unit-III

- 2.1. Simple Cylindrical Map Projections
- 2.2. Cylindrical Equal Area Map Projection
- 2.3. Conical Map Projections with one Standard Parallel
- 2.4. Conical Map Projections with two Standard Parallel

Unit - IV

- 3.1. Zenithal Equal Area Map Projection.
- 3.2. Zenithal Equidistant Map Projection.
- 3.3. Sinusoidal Map projection.
- 3.4. Mollweide Map Projection.

NOTE FOR PAPER SETTER:

Practical Examination/ Evaluation

a. Internal Marks: 25

Attendance: 5 Marks

Daily Performance: 10 Marks

Test and Viva: 10 Marks

b. External Marks: 25

Test: 20 Marks

Viva: 5 Marks

External practical test will be conducted in one session. Question paper will be set from all four units. Two questions from each unit and student will be required to attempt one question from each unit. Each question carries 5 marks.

Books Recommended

1. Gupta K.K. and Tyagi, V. C., 1992: *Working with Map*, Survey of India, DST, New Delhi.
2. Mishra R.P. and Ramesh, A., 1989: *Fundamentals of Cartography*, Concept, New Delhi.
3. Monkhouse F. J. and Wilkinson H. R., 1973: *Maps and Diagrams*, Methuen, London.
4. Robinson A. H., 2009: *Elements of Cartography*, John Wiley and Sons, New York.
5. Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers.

**Detailed Syllabus in Geography for B.A/ B. Sc Semester- III under CBCS for
the Examination to be held in December 2018, 2019 and 2020.**

Course Code: UGOPS- 303 (Skill Enhancement)
Credits: 4
Internal I: 40 (2 hrs)

Title: Cartography
Total Marks: 100
Internal Final: 60 (3 hrs)

Note: The objective of this paper is to train students in Manual and Computer Cartography Skills

Unit- 1

- 1.5. Definition, Nature and Scope of cartography
- 1.6. Definition and Types of scales.
- 1.7. Construction of Plain, diagonal and comparative Scale.
- 1.8. Reading of distance on map. Reduction and enlargement of scale.

Unit- II

- 2.1. Meaning and definition of Maps.
- 2.2. Essential Components of Maps.
- 2.3. Difference between Maps, Charts and Diagrams.
- 2.4. Classification and uses of Maps.

Unit- III

- 3.1. Distribution of Maps: - Methods and drawing of distribution maps,
- 3.2. Drawing of distribution maps with the help of Chorochromatic Methods.
- 3.3. Drawing of distribution maps with the help of Choroschematic methods.
- 3.4. Representation of climatic data with the help of Isopleth methods.

Unit- IV

- 4.1. Types of graphic representation of geographical data.
- 4.2. Representation of Temperature and Rainfall Data with the help of Line graph and its interpretation.
- 4.3. Representation of Temperature and Rainfall Data with the help Bar graph and its interpretation..
- 4.4. Construction of Climograph and Hytherograph with their interpretations.

Note: Examination Scheme for Skill Enhancement Course.

Internal- I	Syllabus to be covered in the Exam	Weightage (Marks)	Duration
1. Five Theoretical Questions of Four (4) marks each. (20 Marks). 2. Two Practical Exercise from each unit, students have to attempt one question from each unit of ten (10) marks each. (20 Marks)	50 % syllabus i.e. two units.	40	2 hrs
Internal Final	Syllabus to be covered in the Exam	Weightage (Marks)	Duration
1. Five Theoretical Questions of Four (4) marks each. (20 Marks). 2. Eight Practical Exercises, two from each unit. Students have to attempt one question from each unit of Ten (10) marks each. (40 marks)	100 % syllabus	60	3 hrs

Books Recommended:

1. Ishtiaque M, A Textbook of Practical Geography, Heritage Publishers, Ansari Road, Daryaganj, New Delhi.
2. Mishra R.P AND Ramesh A., Fundamentals of Cartography, McMillan Co. New Delhi, 1986.
3. Robinson A. H. et.al: Elements of Cartography, John Wiley and Sons, U.A.A., 1995.
4. Sarkar A., Practical Geography: Systematic Approach, Orient Longman, Calcutta, 1997.
5. Singh R.L and Dutt R.K., Elements of Practical Geography, Kalyani Publisher, New Delhi, 1979