UNIVERSITY OF JAMMU, JAMMU
(NAAC ACCREDITED 'A+' GRADE UNIVERSITY)

NOTIFICATION
(18/Aug/Adp/56)

In partial modification of this office Notification No. F.Acd/II/17/6814-47 dated 20.07.2017, it is hereby notified for the information of all concerned that the Vice-Chancellor, in anticipation of the approval of the Academic Council, is pleased to authorize the adoption of revised syllabi and courses of Study in the Subject of **Geography** for **Semester III, Course No. 302 (practical)** under the **Choice Based Credit System at Undergraduate level** (as given in the Annexure) for the examinations to be held in the years indicated against each semester as under:-

Subject	**Semester**	**For the examinations to be held in the year**
Geography (B.A/B.Sc.)	Semester-III	Dec. 2018, 2019 and 2020

Sd/-
DEAN ACADEMIC AFFAIRS

No. F.Acd/II/18/9064-9072
Dated: 29-8-18

Copy for information and necessary action to:

1. Dean, Faculty of Sciences
2. HOD/Convener, Board of Studies in Geography
3. C.A to the Controller of Examinations
4. I/c Director, Computer Centre, University of Jammu
5. Asst. Registrar (Conf. /Exams. UG/Pub.)
6. Incharge, University Website for necessary action please.

Assistant Registrar (Academic)

28/8 28/8 28/08/18

d/c

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 gratitude (longitude and latitude)
1.3. Definition and need of map projections
1.4. Methods of transfer of gratitude on flat sheet of paper.

Unit-II

2.1. General Principles of Map projections.
2.2. Need and Importance of map projection.
2.3. Classification of Map Projection.
1.4. 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.
6.

Detailed Syllabus in Geography for B.A/ B. Sc Semester- III under CBCS for the Examination to be held in December 2017, 2018 and 2019

Course Code: UGOTC- 301 (Theory Core) **Title: Physical Geography- II**

Credits: 4 **Total Marks: 100**

Duration: 2½ Hours **Internal Assessment: 20**

End Semester Exam: 80

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 Deeps.

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 (Atleast 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 question representing all units/ syllabi (Atleast 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:

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

Oceanography:

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

Detailed Syllabus in Geography for B.A/ B. Sc Semester- III under CBCS for the Examination to be held in December 2017, 2018 and 2019

Course Code: UGOPC- 302 (Practical Core)
Credits: 2 **Title: Quantitative Techniques in Geography**

Total Marks: 50

Internal: 25

External: 25

Unit-I

1:1 Quantitative Geography: Introduction and Significance.
1:2 Statistical Data: Definition, Types of Data, Sources of Primary and Secondary Data and their Methods of Collection.
1:3 Tabulation and Analysis of Data

Unit-II

2:1 Central Tendency: Introduction, Merits and Demerits
2:2 Measures of Central Tendency: Methods and their Merits and Demerits.
2:3 Quantitative Analysis: Mean, Median and Mode

Unit-III

3:1 Measures of Dispersions: Introduction and their Merits and Demerits.
3:2 Measures of Dispersions: Methods and their Merits & Demerits
3:3 Quantitative Analyses: Mean Deviation, Quartile Deviation and Standard Deviation

Unit-IV

4:1 Correlation: Introduction and their Merits and Demerits.
4:2 Methods of Correlation and their Merits and Demerits
4:3 Quantitative Analyses: Karl Pearson Product Moment Method and Spearman Rank Correlation Method

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:

- Alvi Zamir, Statistical Geography, Rawat Publications, Jaipur and New Delhi.
- Ishtiaque M, A Textbook of Practical Geography, Heritage Publishers, Ansari Road, Daryaganj, New Delhi.
- Mahmood Aslam, Statistical Methods in Geographical Studies, Rajesh Publications, New Delhi, 2002
- Pal S.K, Statistics for Geoscientists- Techniques and Application, Concept Publishing Company, New Delhi, 1998.
- Singh R.L and Dutt R.K., Elements of Practical Geography, Kalyani Publisher, New Delhi, 1979

Detailed Syllabus in Geography for B.A/ B. Sc Semester- III under CBCS for the Examination to be held in December 2017, 2018 and 2019

Course Code: UGOPS- 303 (Skill Enhancement) **Title: Cartography- II**

Credits: 4 **Total Marks: 100**

Internal I: 40 (2 hrs)

Internal Final: 60 (3 hrs)

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

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Section- A (Cartographic Symbols)

Unit- I

1.1 Cartographic Symbols: Introduction and their Significance in Map Making.
1.2 Types of Cartographic Symbols and their application.
1.3 Conventional Symbols: Physical and Cultural Symbols and their application.

Unit- II

2.1 Cartographic Diagrams: Pie Diagram, Proportional Circles, Concentric Circles, Pyramid and their merits and demerits.

2.2 Representation of Population data by Cartographic Diagrams.

2.3 Representation of Agricultural data by Cartographic Diagrams.

Section- B (Cartographic Methods)

Unit- III

3.1 Cartography Methods: Introduction, Definitions, Types and Application of Dot and Choropleth methods.

3.2 Representation of Population and Agricultural data by Dot and Choropleth methods.

3.3 Representation of Population and Agricultural data by Combination method (Choropleth and Diagrams)

Unit- IV

4.1 Cartography Methods: Introduction, Definitions and Application of Isopleth, Chorochromatic and Choroschematic methods.

4.2 Representation of Climatic data (Temperature and Rainfall) by Isopleth (Interpolation) method.

4.3 Representation of Geographical data by Chorochromatic and Choroschematic Methods.

Note: Examination Scheme for Skill Enhancement Course.

Internal- I	**Syllabus to be covered in the Exam**	**Weightage (Marks)**	**Duration**
i. Five Theoretical Questions of Four (4) marks each. (20 Marks) ii. 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**
i. Five Theoretical Questions of Four (4) marks each. (20 Marks) ii. 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:

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