S.Y.B.A. Geography (S2), Syllabus for Semester IV
Name of the Subject: Cartographic Techniques, Surveying and Excursion / Village / Project Report subject Code: Gg. 201 (B)

Practical Geography-II No. of Credits: 04

Workload: Six Periods per week per batch consisting of 12 Students; however the last batch needs to have more than six students.

(Examination for the course will be conducted at the end of the semester)

Objectives of Course:

1. To introduce the students to the basic and contemporary concepts in Cartography.
2. To acquaint the students with the utility and applications of various Cartographic Techniques.
3. To introduce the latest concepts regarding the modern cartography in the field of Geography.
4. To explain the elementary and essential principles of practical work in Geography.

Course Outcome:

After the successful completion of the course, the students will be able to:

1. Develop practical knowledge and application of cartographical techniques.
2. To make students aware of the new techniques, accuracy and skills of Map Making.

Note :

1. Use of Map stencils, Log tables, Calculators, Statistical Tables is allowed at the time of Examination.
2. Journal completion by the students and the certified by practical in-charge and Head of the Department is compulsory.
3. Students without a certified journal should not be allowed for the practical examination.
4. Each of the practical batches needs a separate question paper.

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Sr. No.	Topic	Sub Topic & Learning Point	No of Practical	Credits
1.	**Introduction to Cartography**	1. Definition of Cartography 2. Development of cartography a. Traditional b. Modern 3. Use of Cartography	**02**	**04**
2.	**Cartographic techniques**	1. Techniques of representation of data (Use and limitations) a. Simple line graph b. Simple bar Graph c. Pie diagram d. Choropleth Map e. Isopleth Method (Isoheight or Isothermal) f. Flow diagram (At least 01 example of each manually and using computer)	**06**	
3.	**Surveying**	1. Definition of Surveying 2. Types of North Direction (True, Magnetic and Grid North) 3. Types of Survey (Any three) a. Plane Table Survey : (Radiation Method and Intersection Method) b. GPS Survey and plotting c. Dumpy level / Auto level survey i) Rise and Fall Method ii) Collimation Method d. Demonstration of Total Station 4. Measurement of land: i) Measurement of survey field ii) Example on measurement of area (Circle, Square, Rectangle, Triangle, Uneven shape) iii) Conversion of area (hector into Acer, Square km into square meter, Square meter to Square feet)	**08**	
4.	**Excursion / village/city survey and report writing**	Study tour to places of geographical interest anywhere in the country Or Socio- economic survey of village/city	**04**	

Reference Books:

1. Sharma J. P., 2010, Prayogic Bhugol, Rastogi Publishers, Meerut.
2. Singh R. L. and Singh R. P. B., 1999, Elements of Practical Geography, Kalyani Publishers.
3. Slocum T. A., Mcmaster R. B. and Kessler F. C., 2008, Thematic Cartography and Geovisualization (3rd Edition), Prentice Hall.
4. Tyner J. A., 2010, Principles of Map Design, The Guilford Press.
5. Sarkar A., 2015, Practical Geography: A Systematic Approach, Orient Black Swan Private Ltd., New Delhi
6. Singh R. L. and Duttta P. K., 2012, Prayogatama Bhugol, Central Book Depot, Allahabad
7. Ahirrao Y., Karanjkhele E. K., 2002, Practical Geography, Sudarshan Publication, Nashik
8. Saptarshi P. G., Jog S. R., Statistical Methods ,
9. Karlekar S. N., 2008, Statistical Methods, Diamond Publication, Pune
10. Kanetkar T. P., Kulkarni S. V., 1986, Surveying and Leveling, Pune Vidyrthi Griha Publication, Pune
11. Kumbhare A., Practical Geography,
12. Saha P., Basu P., 2007, Advanced Practical Geography, Books and Allied (P) Ltd, Kolkata
13. Advanced Practical Geography: 2007, Saha P., Basu P.,Books and Allied (P) Ltd, Kolkata