Shivaji University, Kolhapur
B. A. / B. A. B. Ed. II
Geography
Semester IV
Major VI: Quantitative Techniques in Geography (Practical) as per NEP 2020 (2.0)

Name of the Programme	**:**	B. A. / B. A. B. Ed. (Geography)
Class	**:**	B. A.-I/ B. A. B. Ed.-II
Year of Implementation	**:**	Revised Syllabus will be implemented from June, 2025 onwards.
Semester	**:**	IV
Name of Vertical Group	**:**	Major VI
Course Code	**:**	**BAU0325MMP322D06**
Course Title	**:**	**Quantitative Techniques in Geography**
Total Credit	**:**	04
Workload	**:**	04 credits Practical (4 X 30 Hours) 120 hours in semester
Duration	**:**	The course shall be a full time course
Medium of instruction	**:**	Marathi / English
Eligibility of Admission	**:**	As per eligibility criteria prescribed by the University
Examination Pattern	**:**	Practical for100 Marks, The pattern of examination will be Semester End Examination with Assessment/Evaluation.

Preamble:

The paper "Quantitative Techniques in Geography" offers students a practical knowledge in quantitative techniques. This practical knowledge aims to students acquaint themselves with the distinctiveness of quantitative techniques in geography. In the process of development of science and technology, the changing nature of subject of geography will make aware to the students about use of various quantitative techniques. By the end of this paper, students will have a understanding of the various quantitative techniques in population, transportation, agriculture etc.

General Objectives of the Course:

1. To familiarize the students with the different quantitative techniques and methods.
2. To prepare students to analysis of population dynamics with help of quantitative techniques.
3. To understand the different quantitative techniques in network analysis.

4. To give composed knowledge of agricultural regionalization and settlement characteristics.

Course Outcomes:

By the end of the course, students would be able to:

1. The students would familiar with the different quantitative techniques and methods.
2. The students would prepared for analysis of population dynamics with help of quantitative techniques.
3. The students would understand the different quantitative techniques in network analysis.
4. The students would apply composed knowledge of agricultural regionalization and settlement characteristics.

Scheme of Teaching and Examination:

(The Scheme of teaching and examination should be given as applicable to the course / paper concerned)

B. A. / B. A. B. Ed. part –II

Sr. No.	Subjects/Course & Credit	Practical Hours per Week				Examination scheme (Marks)		
1	Quantitative Techniques in Geography - 4	L	T	P	Total	Practical	Term Work	Total (Semester)
		08	---	08	08	100	---	100

Scheme of Examination:

- The examination shall be conducted at the end of each academic year.
- The Practical paper shall carry 100 marks.
- The evaluation of the performance of the student in practical papers shall be on the basis of annual practical examination of 100 marks.
- Question Paper will be set in the view of the / in accordance with the entire syllabus and preferably covering each Module of syllabi.

Standard of Passing:

(As prescribed under rules & regulation for each diploma / degree / program)

Nature of Question Paper and Scheme of Marking:

(As per rules & regulation of Shivaji University)

Modules: Quantitative Techniques in Geography (Practical)				
Module No.	**Module Name**	**Sub-module**	**No. of hours & Marks**	**Credit**
1	Population Dynamics	1.1 Population Dynamics: Aspects of Population its Importance in Regional Development **Practical Exercise:** a) Measurement of Sex Ratio b) Measurement of Literacy Rate c) Measurement of Population Growth by Gibb's Method d) Measurement of Decadal Population Growth	30 (20)	01
2	Network Analysis	2.1 Concept of Network 2.2 Importance of Road Network **Practical Exercise:** a) Prithar's Method of Degree Connectivity b) Measurement of Road Accessibility (D-Matrix) c) Routeway Analysis d) Traffic Flow Analysis	30 (20)	01
3	Agricultural Regionalization	3.1 Agricultural Regionalization Methods 3.2 Importance of Agricultural Regionalization **Practical Exercise:** a) Kendall's Method of Agricultural productivity b) Weaver's Method of Crop Combination c) Bhatia's Method of Crop Concentration d) Gibbs and Martin's Method of Crop Diversification	30 (20)	01
4	Settlement Characteristics	4.1: Concept of Settlement 4.2 Types and Characteristics of Settlements **Practical Exercise:** a) H. J. Nelson's Method of Classification of Town b) Nearest Neighbor Analysis c) Demongeons Co-effiicent of Dispersion d) Reciprocal Method	30 (20)	01
5	Journal and Viva Voce		(20)	

Note :

1. Figures in the bracket indicate weightage of marks to concern module.
2. Use of stencils, log tables, computer and calculator is allowed.
2. Journal should be completed and duly certified by practical in-charge and Head of the Department.

Suggested Readings

1. Chandra R. C. (2016). Population Geography, Kalyani Publisher, New Delhi
2. Jean-Paul Rodrigue (2024): Geography of Transport System, A&M University – Galveston, Texas.
3. Majid Husain (1995) Systematic Agricultural Geography, Rawat Publication, Jaipur
4. Maurya S. D. (2017), Population Geography, Provolika Publication, Alahabad.
5. Robert Hammond, (1978): Quantitative Techniques in Geography: An Introduction, Oxford University Press, Mumbai: 02-127, 2nd Floor, Express Towers, Marine Drive, Nariman Point, Mumbai, Maharashtra 400021.
6. अहिररावव करंजखेळे : प्रात्यक्षिक भूगोल, सुदर्शन पब्लिकेशन, नाशिक
7. कुंभार अर्जुन : प्रात्यक्षिक भूगोल, सुमेरू पब्लिकेशन, मुंबई
8. श्रीकांत कार्लेकर : प्रात्यक्षिक भूगोल, डायमंड प्रकाशन, पुणे