University of Mumbai

As per NEP 2020
Skill Enhancement Course (SEC)
F.Y.B.A. / B.Sc. Geography (From academic Year 2024-2025)

SEMESTER- II

Title: - Tools and Techniques of Thematic Mapping (Practical)

Course Credits: 02 **Course Code:**

Pre-requisite:
Knowledge and understanding of basic concepts of maps

Course Objectives:
1. To train the learners concerning the Cartographic Principles.
2. To provide a foundation for thematic map design and spatial analysis techniques.
3. To interpret and communicate spatial and non-spatial data.

Course Outcomes:
After the completion of the course, the students will be able to:
1. Remember the fundamentals of Maps and Thematic Maps.
2. Understand the elements of maps.
3. Apply Spatial Statistical Techniques in Thematic Mapping
4. Analyse the different types of thematic maps.
5. Evaluate the infographics provided through thematic maps.
6. Create his/her thematic map using spatial-statistical techniques.

Course Content:

Unit	Topics	Hours
I	**Introduction to Thematic Maps**	**07**
1.1	Map: Meaning and Types	
1.2	Basic Elements of Maps	
1.3	Concept and Types of Thematic Maps	
II	**Reading and Interpretation of Thematic Maps – I**	**08**
21.1	Choropleth Map	
2.2	Isopleth Map	
2.3	Dot Map	
III	**Reading and Interpretation of Thematic Maps – II**	**07**
3.1	Located Bars, Located Proportional Circles,	
3.2	Pictogram	
3.3	Flow Maps	
IV	**Techniques &Themes of Thematic Maps – III**	**08**
4.1	Population Maps	
4.2	Linguistic Maps	
4.3	Land Use Land Cover (LULC) Maps	
		30

References:

1. Slocum, Terry A., 1999, Thematic Cartography and Visualization, Prentice-Hall, Upper Saddle Creek, NJ. www.prenhall.com/slocum
2. MacEachern, Alan M. 1994. Some Truth with Maps: A Primer on Symbolization and Design, Resource Publications in Geography, Washington, DC
3. Carter, James, 1984 Computer Mapping (Progress in the '80s), Resource Publications in Geography, Washington, DC: Association of American Geographers.
4. Dent, Borden D., 1999, Cartography: Thematic Map Design, 5th edition, Boston: WCB/McGraw-Hill.
5. Jones, Christopher, 1997, Geographical Information Systems and Computer Cartography, Harlow, U.K., Addison-Wesley Longman.
6. Kraak, Menno-Jan, Ormeling, Ferjan, 1996, Cartography: Visualization of Spatial Data, Addison-Wesley Publishing.
7. Madej, Ed., 2000, Cartographic Design Using Arcview GIS, 1st edition, OnWord Press.
8. Monmonier, Mark, 1996, How to Lie With Maps, 2nd.Edition, Chicago: University of Chicago Press
9. Monmonier, Mark,1997, Cartographies of Danger, Mapping Hazards in America, Chicago: University of Chicago Press.
10. MacEachren, Alan, M., 1995, How Maps Work, Representation, Visualization, and Design, Guilford Press
11. Robinson, Arthur H., Morrison, Joel L., Muehrcke, Phillip C. and Stephen C. Guptill, 1995, Elements of Cartography, 6th edition, NY: John Wiley & Sons
12. ESRI, Serving Maps on the Internet, Redlands CA: ESRI Press

QUESTION PAPER PATTERN (Geography)

(External and Internal)

EXAMINATION PATTERN FOR THEORY PAPER (SEMESTER I and II)

A) Continuous Internal Assessment (40 Marks)		
Sr. No.	**Particular**	**Marks**
1	One Assignment/Project work/Case study /Presentation /Seminar /Field visit report/Book review etc. to be conducted in the given semester before the Semester end examination.	20
2	One online/ offline class test	10
3	Active participation in regular class instructional deliveries and fieldwork.	05
4	Overall conduct as a responsible learner, mannerism and articulation and exhibit of leadership qualities in organizing environment-related activities	05

B) Semester End Examination (60 Marks):

1. These examinations shall be of 2 Hours duration. Maximum marks 60.
2. There shall be four questions each of 15 marks. On each unit, there will be one question as per the directive of BOS.
3. All questions shall be compulsory with internal choice within the questions. (Each question will be of 15 marks with options.)

EXAMINATION PATTERN FOR PRACTICAL PAPER (SEMESTER I and II)

A) Continuous Internal Assessment (40 Marks)		
Sr.No.	**Particular**	**Marks**
1	Journal and Viva	20
2	One online/ offline class test	10
3	Active participation in regular class instructional deliveries and fieldwork.	05
4	Overall conduct as a responsible learner, mannerism and articulation and exhibit of leadership qualities in organizing environment-related activities	05

B) Semester End Examination (60 Marks):

|| सा विद्या या विमुक्तये ||

Yuvak Vikas Mandal's

Arts, Commerce, Science College, Bhalavali

Affiliated to University of Mumbai

Tal-Rajapur, Dist-Ratnagiri, Pin 416707.

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भूगोल विभाग

मुंबई विद्यापीठ NEP 2020 नुसार

स्किल एन्हांसमेंट कोर्स (SEC)

F.Y.B.A. / B.Sc. भूगोल (शैक्षणिक वर्ष 2024-2025 पासून)

सेमिस्टर- II कोर्स क्रेडिट्स: 02

शीर्षक:- थीमॅटिक मॅपिंगची साधने आणि तंत्रे (व्यावहारिक)

क्र.	घटकाचे नाव	तासिका
1	**थीमॅटिक नकाशे परिचय**	**07**
	1.1 नकाशा: अर्थ आणि प्रकार 1.2 नकाशेचे मूलभूत घटक 1.3 थीमॅटिक नकाशांची संकल्पना आणि प्रकार	
2	**थीमॅटिक नकाशांचे वाचन आणि व्याख्या – I**	**08**
	2.1 कोरोप्लेथ नकाशा 2.2 Isopleth नकाशा 2.3 डॉट नकाशा	
3	**थीमॅटिक नकाशांचे वाचन आणि अर्थ लावणे – II**	**07**
	3.1 स्थित बार, प्रमाणबद्ध वर्तुळे 3.2 चित्रालेख 3.3 प्रवाह नकाशे	
4	**थीमॅटिक नकाशांची तंत्रे आणि थीम – III**	**08**
	4.1 लोकसंख्येचे नकाशे 4.2 भाषिक नकाशे 4.3 जमीन वापर (LULC) नकाशे	

प्रश्नपत्रिका नमुना (भूगोल)

(बाह्य आणि अंतर्गत)

परीक्षेचा नमुना SEC व (सत्र II)

ब) सत्रांत परीक्षा (30 गुण)

1. या परीक्षा 01 तासांच्या असतील. कमाल गुण 30.
2. प्रत्येकी 10 गुणांचे चार प्रश्न असतील. प्रत्येक युनिटवर एक प्रश्न असेल. (कोणतेही तीन सोडवा.)
3. प्रश्नांमध्ये अंतर्गत निवडीसह सर्व प्रश्न अनिवार्य असतील.

प्रात्यक्षिक पेपरसाठी परीक्षेचा नमुना (सत्र II)

अंतर्गत मूल्यांकन (२० गुण)		
क्र.	**मुख्य घटक**	**गुण**
1	जर्नल	05
2	तोंडी परीक्षा	05
3	एक ऑनलाइन वर्ग चाचणी	05
4	नियमित वर्ग सक्रिय सहभाग	05