

Semester: VII

20. MAJOR COURSE- MJ 19: PRACTICALS-VI: (ADVANCED CARTOGRAPHY)

Allotted:144 Lectures

Course Objective:

1. To familiarise students about methods, tools and techniques of cartography
2. To make student learn and apply principles of map design, thematic mapping techniques and preparation of an Atlas

Sl.	Unit	Topics	Methodology	Assessment	Outcome
1	Part-A Unit 1: 28Lectures	(DISCIPLINE BASED MAPPING) Mapping of Pollution Intensity, Air Quality index, Mapping and measuring traffic density, traffic flow map.	<ul style="list-style-type: none"> • Lecture • Digital Classes • Group Discussion • Self-study • EX-situ Examples. 	<ul style="list-style-type: none"> • Quiz on basic concepts • Class Test • Assignments • Presentation 	<ol style="list-style-type: none"> 1. Have sound knowledge regarding construction of maps using computers or manual methods. 2. Have proper utilization of maps for the planning and development. 3. Appreciate the preparation of various thematic maps with the application of various techniques.
2	Unit 2: 29 Lectures	Water potential zones (study and its interpretation in India and Jharkhand), simple numerical problems related to determining permeability in the field and laboratory, Ground water flow, Well hydraulics, Mapping religious contour of India (on an outline map of India), Mapping tribal pattern and contour in India and Jharkhand, mapping and analysis of international boundary of India	<ul style="list-style-type: none"> • Lecture • Digital Classes • Group Discussion • Self-study • Ex-situ Examples. 	<ul style="list-style-type: none"> • Quiz on basic concepts and Theories • Class Test • Assignments • Presentation 	<ol style="list-style-type: none"> 1. Have sound knowledge regarding construction of maps using computers or manual methods. 2. Have proper utilization of maps for the planning and development. 3. Appreciate the preparation of various thematic maps with the application of various techniques.
3	Part-B Unit 3: 29 Lectures	(THEMATIC ATLAS- CASE STUDY BASED MAPPING) Principles of Map Design; Cartographic Overlays – Point, Line and Areal Data; Diagrammatic Data Presentation – Line, Bar and Circle.	<ul style="list-style-type: none"> • Lecture • Digital Classes • Group Discussion. • Ex-situ Examples. 	<ul style="list-style-type: none"> • Quiz on basic concepts and Theories • Class Test • Assignments • Presentation 	<ol style="list-style-type: none"> 1. Learn the concept of transport, its types and factors 2. Equip with a basic understanding of nature and scope, trends and patterns of various types of tourisms 3. Apply the principles of Geo-tourism and analyse the prospects and problems associated with

			<ul style="list-style-type: none"> • Self-study 		pilgrimage tourism
4	Unit 4: 29 Lectures	Thematic Mapping Techniques – Properties, Uses and Limitations- Isopleths, Dot, Chorochromatic, Proportional Circles	<ul style="list-style-type: none"> • Lecture • Digital Classes • Group Discussion • Self-study • Ex-situ Examples. 	<ul style="list-style-type: none"> • Quiz on basic concepts and Theories • Class Test • Assignments • Presentation 	<ol style="list-style-type: none"> 1. Learn the concept of transport, its types and factors 2. Equip with a basic understanding of nature and scope, trends and patterns of various types of tourisms 3. Apply the principles of Geo-tourism and analyse the prospects and problems associated with pilgrimage tourism
5	Unit 5 29 Lectures	Thematic Maps – Preparation and Interpretation of atlas	<ul style="list-style-type: none"> • Lecture • Digital Classes • Group Discussion • Self-study • Ex-situ Examples. 	<ul style="list-style-type: none"> • Quiz on basic concepts and Theories • Class Test • Assignments • Presentation 	<ol style="list-style-type: none"> 1. Learn the concept of transport, its types and factors 2. Equip with a basic understanding of nature and scope, trends and patterns of various types of tourisms 3. Apply the principles of Geo-tourism and analyse the prospects and problems associated with pilgrimage tourism

Suggested Readings:

1. Monkhouse, F. J. and Wilkinson, H. R.,(1973): Maps and Diagrams, Methuen, London.
2. Cuff, J. D. and Mattson, M. T., (1982): Thematic Maps: Their Design and Production, Methuen Young Books
3. Dent, B. D., Torguson, J. S., and Holder, T. W., (2008): Cartography: Thematic Map Design (6th Edition), McGraw Hill Higher Education