

## SEMESTER I

### GEOACOR01T – GEOTECTONICS AND GEOMORPHOLOGY (THEORY)

(50 MARKS, 60 CLASSES)

<b>UNIT I – GEOTECTONICS</b>		
<b>SL. NO.</b>	<b>TOPICS AND SUB-TOPICS</b>	<b>TEACHER</b>
1.	Earth's tectonic and structural evolution with reference to geological time scale	D.B.
2.	Earth's interior with reference to seismology, Isostasy: Models of Airy and Pratt	D.B.
3.	Plate tectonics as a unified theory of global tectonics: Processes and landforms at plate margins and hotspots	M.M.
4.	Folds and Faults – origin and types	A.S.
<b>UNIT II – GEOMORPHOLOGY</b>		
5.	Degradational processes: Weathering, mass wasting and resultant landforms	A.S.
6.	Development of river network and landforms on uniclinal and folded structures	S.K.
7.	Development of landforms on granites, basalts and limestones	S.K.
8.	Coastal processes and landforms	A.D.S.
9.	Glacial and glacio-fluvial processes and landforms	A.D.S.
10.	Aeolian and fluvio-aeolian processes and landforms	M.M.
11.	Models on landscape evolution: Views of Davis, Penck and Hack	A.D.S.

**GEOACOR01P - GEOTECTONICS AND GEOMORPHOLOGY (PRACTICAL)****(25 MARKS, 60 CLASSES)**

<b>SL.NO.</b>	<b>TOPICS</b>	<b>TEACHER</b>
1.	Megascopic identification of (a) mineral samples: Bauxite, calcite, chalcopyrite, feldspar, galena, gypsum, hematite, magnetite, mica, quartz, talc, tourmaline; and (b) rock samples: Granite, basalt, dolerite, laterite, limestone, shale, conglomerate, slate, phyllite, schist, gneiss, quartzite, marble	A.D.S.
2.	Interpretation of geological maps with unconformity on uniclinal and folded structures	A.S.

**GEOACOR02T – CARTOGRAPHIC TECHNIQUES (THEORY)****(50 MARKS, 60 CLASSES)**

<b>SL.NO.</b>	<b>TOPICS</b>	<b>TEACHER</b>
1.	Maps: classification and types. Components of maps	D.B.
2.	Concept and application of scales : Plain, comparative, diagonal and vernier	D.B.
3.	Survey of topographical maps: Reference scheme of old and open series. Information on the margin of map	S.K.
4.	Coordinate systems: Polar and rectangular	D.B.
5.	Concept of generating globe and UTM projection	D.B.
6.	Map projections: classification, properties and uses	O.M., A.C

**GEOACOR02P – CARTOGRAPHIC TECHNIQUES (PRACTICAL)**

**(25 MARKS, 60 CLASSES)**

<b>SL.NO.</b>	<b>TOPICS</b>	<b>TEACHER</b>
1.	Graphical construction of scales: Plain, comparative, diagonal and vernier	D.B.
2.	Construction of projections : Polar Zebithal Stereographic, Simple Conic with two standard parallel, Bonne's, Cylindrical Equal Area, Mercator's	A.C, O.M
3.	Delineation of drainage basin from Survey of India topographical map. Construction and interpretation of relief profiles (superimposed, projected and composite), relative relief map, slope map (Wentworth), and stream ordering (Strahler) on a drainage basin	A.S.
4.	Correlation between physical and cultural features from Survey of India topographical maps using transect chart	S.K.

**SEMESTER I GENERAL**

**GEOGCOR01T – PHYSICAL GEOGRAPHY, 75 MARKS**

<b>UNIT I – GEOTECTONICS AND GEOMORPHOLOGY</b>		
<b>SL. NO.</b>	<b>TOPICS AND SUB-TOPICS</b>	<b>TEACHER</b>
1.	Physical Geography – Definition and Scope, Components of Earth System	O.M.
2.	Internal structure of Earth based on Seismic Evidence, Plate Tectonics and its associated features	O.M.
3.	Influence of rocks on topography: Limestone and Granite	S.K.
4.	Evolution of landforms under fluvial process, Normal Cycle of Erosion of Davis	S.K.
5.	Formation of erosional and depositional landforms by coastal and Aeolian processes	A.D.S.
<b>UNIT II – CLIMATOLOGY AND OCEANOGRAPHY</b>		
6.	Insolation and Heat Budget	A.C.
7.	Horizontal and Vertical distribution of temperature and pressure	S.K.
8.	Planetary wind system, characteristics of Monsoon and Tropical Cyclone	M.M.
9.	Climatic classification: Koppen	A.D.S.
10.	Hydrological Cycle, Ocean Bottom Relief Features, Ocean Currents	A.C.