

SAMSI COLLEGE

DISTRIBUTION OF SYLLABUS

B.SC. SEMESTER-I GEOGRAPHY MAJOR AND MINOR

MC-1A: Geotectonics and Geomorphology (Theory)

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MnC-1A: Geotectonic & Geomorphology (Theory)

Part 1: Geotectonics

1. Origin of Universe, solar system and Earth (Tidal hypothesis and Big Bang Theory). **AH** **AI**
- AI** 2. Earth's tectonic and structural evolution with special reference to geological time scale
- MH** 3. Earth's interior with special reference to seismology; Isostasy: theory of Airy and Pratt, Isostatic adjustments and distribution of gravity anomalies. **AH** **AI**
4. Continental Drifting (Alfred Wegener), Palaeo-Magnetism and Seafloor Spreading, Plate tectonics. **RM** **RM**
- MH** 5. Earthquake, Folds and Faults and Volcanos. **AH**

Part 2: Geomorphology

- RM** 1. Geomorphology: Nature, Scope and Approaches, Fundamental concepts in Geomorphology: Thornbury **MH** **RM** **AH**
 2. Denudation processes (weathering, mass movement and erosion) and resultant landforms. **AI** **AI** **AI** **RM**
 3. Models on landscape evolution: Davis, Penck, and Hack **RM**
- RM** 4. Development of river networks and landforms on uniclinal and folded structures.
- AI** 5. Slope development and evolution of slope (Davis and King)
 6. Geomorphic processes and landforms: Fluvial, Glacial, Fluvio-glacial, Aeolian, Fluvio-aeolian, Coastal and Karst. **MH** **RM** **AI** **AH** **MH** **AH** **RM**

MC-1B: Geotectonics and Geomorphology (Practical)

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MnC-1B: Geotectonics and Geomorphology (Practical)

List of Practical

- MH** **SOI topographical maps:** Construction and interpretation of relief profiles (serial, superimposed, projected and composite).
2. **Drainage Basin Morphometry:** Delineation of watershed, Stream ordering (Strahlar) and Morphometric analysis: Relative Relief (after Smith), Dissection Index (after DovNir), Average Slope (after Wentworth) **RM** **AH** **AI**

MC-2A: Cartographic Techniques (Theory)

Cartographic Techniques

- AI** 1. Introduction to Cartography: Nature, scope and development, elements, and applications.
2. Concept and application of map scale: Plain, comparative, diagonal and Positive Vernier **AH AH AI AI**
- RM** 3. Coordinate systems: Grid, concept of geoid, spheroid, rectangular and geographical coordinate system,
4. Map projections: concept, classification, properties and uses; Concept and significance of UTM projection **MH RM**
- RM** 5. Concept of map, components, classifications, importance and uses.
6. Geographical data and Cartograms: Techniques, advantages, and disadvantages of Line, Bar, Dot and Sphere, Proportional circles, Isopleths, and choropleth. **AH AH AI MH AI RM**

MC-2B: Cartographic Techniques (Practical)

List of Practical

1. **Map Scale:** Scale conversion: Statement, RF, Graphical (Linear, Comparative, **MH AH AH** Diagonal, Positive vernier **AI**); Enlargement and reduction of scale. **AI**
2. **Map Projections:** Cylindrical Equal Area, Mercator's, Simple conical with one standard parallel, Bonne's, Polar Zenithal Gnomonic. **MH AI AH AH**
3. **Geographical Data Representation and Interpretation:** Line, Bar, Dot and Sphere, Proportional circles, Isopleth and choropleth **AI RM MH AI**

SEC-1A: Elementary Statistics (Theory)

- AI** 1. Concepts and significance of statistics in Geography.
- RM** 2. Collection of Data: Primary and secondary.
- AI** 3. Classification and Tabulation of Data: Frequency Distribution (Simple and cumulative) and Diagrammatic representation.
- RM** 4. Data measurement scales: Nominal, Ordinal, Interval and Ratio.
- RM** 5. Sampling: Needs, types, and significance. Method of random sampling.
- MH** 6. Central tendency: Mean, median, mode.
7. Measures of dispersion: range, quartile deviation, mean deviation, standard deviation; coefficient of variation (CV) **AH AH AI**
- RM** 8. Correlation and regression: Rank correlation, product moment correlation; linear regression.

List of Practical

1. Construction of histogram and frequency curve; measures of central tendency; computation of mean (arithmetic and geometric), median and mode. **AI RM RM**
- RM** 2. Measures of dispersions: Mean Deviation, Standard deviation and coefficient of variation
- RM** 3. Computation of correlation (Pearson) and Linear regression (Least square method).

NAME OF THE TEACHER WITH ABBREVIATION

RM=DR. RAMESWAR MUKHERJEE; AI=MD. AMINUL ISLAM; MH= MD. MURSEDUL HASAN; AH= MD. AMINUL HOQUE