Raja N.L. Khan Women's College (Autonomous)
Syllabus for PG Entrance Test-2022
Subject: Geography

Geomorphology and Geotectonic

1. Earth: Interior Structure and Isostasy (Airy and Pratt's Theory)
2. Plate Tectonics: Types of Plate boundary and associated Landforms.
3. Geomorphic Processes: Weathering: Mechanism of Physical and Chemical Weathering, Mass Wasting: Landslide: factors, vulnerability, consequences & management.
4. Cycle of Erosion (Davis and Penck).
5. Evolution of Landforms (Erosional and Depositional): Karst.
6. Evolution of Landforms: Folded structure.

Hydrology and Oceanography

1. Hydrological Cycle: Systems approach in hydrology, human impact on the hydrological cycle;
2. Elements of Hydrological Cycle: Precipitation, interception, evaporation, evapo-transpiration, infiltration, ground-water, run off and over land flow.
3. Oceanic Movements – Waves, Currents (with special reference to Indian Ocean)
4. Ocean Salinity: Distribution and Determinants.
5. Temperature – Distribution and Determinants.
6. Coral reef: ideal conditions, types and threats.

Climatology, Soil and Biogeography

1. Atmospheric Composition and Structure – Variation with Altitude.
2. Atmospheric Pressure and Winds – Planetary Winds, Forces affecting Winds, Jet Streams.
3. Tropical Cyclones, Monsoon - Origin andMechanism (Jet stream theory).
4. Soil: Forming Factors, Classification (Zonal, Azonal, Intra-zonal) Physical & Chemical Properties of soil: Texture, Structure, pH, Organic Matter.
5. Causes of Soil Erosion and methods of soil conservation.
6. Biomes: concepts, types; adaptation with environments (Tropical Rainforest & TemperateGrass Land)

Humana and Social-Cultural Geography, Regional Planning and Development

1. Space and Society: Cultural Regions, Race; Religion and Language
2. Settlements: Types of Rural Settlements; Classification of Urban Settlements;
3. Definition and Types of Region, Formal, Functional, and Planning Regions
4. Regional planning: Needs, principles, Types of regional Planning.
5. Theories and Models for Regional Planning: Growth Pole Model of Perroux; Growth Centre Model in Indian Context; Myrdal
6. Measuring development: Indicators (Economic, Social and Environmental);

Evolution of Geographical Thought and Geography of India

1. Contribution of Greek, Indian contribution of Arab Geographers in Pre-modern geography; Contribution of German, American school of thought in development of modern geography.
2. Debates: Debates – Environmental Determinism and Possibilism, Systematic and Regional
3. Trends in geography: quantitative revolution; Radicalism, Feminism. Changing concept of space in geography.
4. Physical: Physiographic Divisions (characteristics &classification of India),Indian soil, vegetation and climate (characteristics and classification
5. Population: Distribution and growth, Structure & Policy.
6. Agricultural region: green revolution & consequences

Research Methodology and Geospatial Technology

1. Defining of research problems, objectives & hypothesis, Materials and Methods of Research.
2. Field Techniques – Merits, Demerits and Selection of the Appropriate Technique; Observation (Participant / Non-Participant), Questionnaires (Open/ Closed / Structured / Non-Structured); Interview with Special Focus on Focused Group Discussions.
3. Designing the Field Report – Literature review, Aims and Objectives, Methodology, Analysis,Interpretation, References, Bibliography, Citation, & Abstract.
4. Digital Image Processing: Pre-Processing (Radiometric and Geometric Correction): Digital Image Classification: Supervised and Unsupervised
5. Geographical Information System, Global Positioning System (GPS) definition and component, Principles and Uses
6. GIS Data Structures: Types (spatial and Non-spatial), Raster and Vector Data Structure

Statistical Methods in Geography and Cartographic Techniques

1. Sources of Data, Measures of central tendency: Mean, Median & Mode.
2. Measures of dispersion: Range, Quartile Deviation, Mean Deviation, Standard Deviation, Variance and Coefficient of Variation.
3. Sampling: Concepts, Types & Significance.
4. Scale: concept & application (Plain/Comparative/Diagonal/Vernier)
5. Bearing: Magnetic &True Bearing; whole circle and reduced bearing.
6. Map projection: Concept and basis of classification