

# Syllabus for Integrated Ph.D Programme 2015 onwards

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**Paper-I: Recent Advances in the Subject**

**Time: 3 Hours**

**Max. Marks: 100**

## **Unit I**

### **Current Issues**

- 1.1. Climate change and its consequences; A Geographical perspective.
- 1.2. Natural hazards and Disasters , Framework & Policies-International/National/Regional
- 1.3. Land degradation and Land use planning; A Geographical perspective.
- 1.4. Food security; National scenario.
- 1.5. Geopolitical issues; Emerging boundary issues – National & Local, Energy Security

## **Unit II**

### **Advances in Geography**

- 2.1. Globalization; Problems & Prospects.
- 2.2. Carrying Capacity of Physical and Social System; Wetlands and Tourist Nodes.
- 2.3. Framework for Environmental Impact Assessment & Environmental Management Plan
- 2.4. Ecological Economics; Concept
- 2.5. Smart Cities; Concept

## **Unit III**

### **Advances in Spatial Techniques**

- 3.1. Global Positioning System (GPS) & its applications
- 3.2. Current trends in GIS: big data integration
- 3.3. Hyperspectral remote sensing
- 3.4. Microwave remote sensing
- 3.5. Remote Sensing, GIS & GPS interface & integration

## **Unit IV**

### **Applications of Models in Geography**

- 4.1. Climatic Modeling - GCM
- 4.2. Land use Modeling - Markov
- 4.3. Watershed Modeling, Distributed Models - SWAT
- 4.4. Health Model - Epidemiological Transition Model

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**Paper-II: Methodology**

**Time: 3 Hours**

**Max. Marks: 100**

## **Unit- I**

- 1.1 Research, Scientific Research-Concept & Characteristics, Approach to research
- 1.2 Identification of the Problem, Assessing the status of the Problem.
- 1.3 Formulating the objectives, preparing the design, experimental or otherwise.
- 1.4 Literature Review.

## **Unit-II**

- 2.1 Concept of hypothesis.
- 2.2 Hypothesis formulation.
- 2.3 Types of hypothesis.
- 2.4 Hypothesis Testing.

## **Unit-III**

- 3.1 Types of sources material- Primary, secondary & experimental data.
- 3.2 Generation of primary data & its methods- Sampling .
- 3.3 Designing of structured questionnaire, Validation of questionnaire, Processing & Analysis of Data.
- 3.4 Report writing- Format, Citations, Design of Chapters, Inferences, Findings and Conclusion, Bibliography & Webliography.

## **Unit-IV**

- 4.1 Philosophy and Methodology in Geography
- 4.2 Recent research approaches in Geography
- 4.3 Scientific explanation in geographical research and types of explanations.
- 4.4 Concept, meaning & Framework of Models.

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