# POST GRADUATE CERTIFICATE IN GEOINFORMATICS (PGCGI)

## **Term-End Examination**

December, 2024

# MGY-001: INTRODUCTION TO GEOINFORMATICS

Time: 2 Hours Maximum Marks: 50

Note: All questions are compulsory. Internal choices are given in question nos. 2 to 4. Marks of each question are indicated against it.

## 1. Answer all parts:

 $5 \times 1 = 5$ 

- (a) Fill in the blanks with appropriate word(s):
  - (i) ...... is the science that deals with the study of shape and area of the Earth.
  - (ii) Remote sensing data generated employing sun's energy is known as ...... remote sensing.

- (iv) ...... is defined as a twodimensional representation of a threedimensional surface of the Earth.
- (v) ...... is the process of converting an analog image or map into digital format usable by a computer.
- (b) Match the items given in Column A with the most appropriate one given in Column B: 5×1=5

#### Column A Column B

- (i) Aranya
- (1) Vector data
- (ii) Metadata
- (2) Terra Satellite
- (iii) ASTERDATA
- (3) DEM
- (iv) 3D GIS
- (4) Open source tools
- (v) Point feature
- (5) Census India
- 2. Write short notes on any *four* of the following :

 $4 \times 5 = 20$ 

(a) Global Positioning System

- (b) Geoinformatics Product
- (c) Microwave Remote Sensing
- (d) Standards of Data Formats
- (e) Mobile GIS
- (f) Geoinformatics in e-Governance
- 3. Discuss in detail any *five* initiatives of Government of India having significant geoinformatics component.

#### Or

- (a) Describe the types of data formats depending upon the level of processing. 5
- (b) Describe in brief UTM map projection. 5
- 4. Discuss in detail the application of geoinformatics in ecosystem management with special emphasis on terrestrial ecosystem. 10

#### Or

- (a) What is map scale? Explain the methods of representation of map scale.
- (b) Discuss briefly the usage and functionality of COTS with suitable examples. 5