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MGY-003

**POST GRADUATE CERTIFICATE IN
GEOINFORMATICS (PGCGI)**

**Term-End Examination
December, 2023**

**MGY-003 : GLOBAL NAVIGATION SATELLITE
SYSTEM AND GEOGRAPHIC
INFORMATION SYSTEM**

Time : 2 Hours

Maximum Marks : 50

Note : (i) *All questions are compulsory.*

(ii) *Internal choices are given in Question No. 2 to 4.*

(iii) *The marks for each question are indicated against it.*

1. Answer all parts :

(a) Fill in the blank with appropriate word(s) :

3×1=3

(i)consists of GNSS satellites like space vehicles that send radio signals from space.

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- (ii)is the process of inputting spatial data into GIS database by assigning geographical coordinates.
- (iii)are used to convert analog maps or photographs into digital image data in raster format.
- (b) State whether the following statements are True (T) or False (F) : 3×1=3
- (i) Rubber sheeting is a uniform adjustment of a dataset based on the movement of known control points to previous locations.
- (ii) Deductive model draws results based on scientific theories and physical laws.
- (iii) A data file made up of a multiple record type with nested repeating groups of items forming a uni-level organization is called a hierarchical file.

- (c) Match the items given in Column A with those in Column B : 4×1=4

Column A	Column B
(i) Radio navigation system	(1) Spaghetti
(ii) RINEX	(2) Source geospatial data
(iii) Inherent errors	(3) Raw GPS static data format
(iv) Non-topological data structure	(4) LORAN

2. Write short notes on any **four** of the following : 4×5=20

- (a) GLONASS
- (b) Steps for GPS Survey
- (c) Spiral Model
- (d) Map digitisation
- (e) Data quality and its issues
- (f) GIS as science and technology
- (g) Geographic data and geographic information

3. Discuss the three segments of GPS with the help of neat well-labelled diagrams. 10

Or

- (a) Discuss briefly the principle of GPS operation. 5
- (b) Explain the disadvantages of raster and vector data models. 5
4. Discuss in detail any *five* methods of data conversion. 10

Or

- (a) Discuss the types of GIS outputs giving suitable examples. 5
- (b) Explain geographical information system as decision support system. 5