

No. of Printed Pages : 4

MGY-003

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

Term-End Examination

June, 2024

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

Time : 2 Hours

Maximum Marks : 50

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- 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 blanks with appropriate word(s) :
 $3 \times 1 = 3$
- (i) consists of system of tracking stations located around the world like master control and monitor network.

P.T.O.

[2]

MGY-003

- (ii) creates buffer zone by measuring straight distances from selected features.
- (iii) is the process of transforming three-dimensional surface of globe or a part of it into two dimension.
- (b) State whether the following statements are True (T) or False (F) : $3 \times 1 = 3$
- (i) Deterministic model is a type of spatial modelling which gives the known result based on unknown input.
- (ii) A software package designed to facilitate creation and maintenance of computerised database is called database management system.
- (iii) Data definition language is used for queries and data modification.
- (c) Match the items given in column A with those in column B : $4 \times 1 = 4$

[3]

MGY-003

Column A

Column B

- | | |
|------------------------|------------------------------------|
| (i) Dithering | (1) Broadcast false signal |
| (ii) GPS positioning | (2) Trilateration |
| (iii) Multipath effect | (3) Reflection of satellite signal |
| (iv) Jam and Spoof | (4) Digital noise |

2. Write short notes on any *four* of the following :

4×5=20

- (a) Galileo
- (b) Spatial elements
- (c) System life cycle approach
- (d) Georeferencing
- (e) Data consistency
- (f) Types of database

3. Explain the concept of topology. Discuss in detail the important components of topology. 2+8=10

Or

P.T.O.

[4]

MGY-003

- (a) Explain the advantages of raster and vector data models. 5
 - (b) Discuss the types of GPS receiver and data formats. 5+5
4. What is data integration ? Discuss the types of data integration. 2+8=10

Or

- (a) Describe types of cartographic outputs. 5
- (b) Discuss the advantages of GPS over conventional surveying methods. 5
