

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

**Term-End Examination
December, 2020**

**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 spaces with appropriate word(s) : $4 \times 1 = 4$

(i) Digitiser, disk drive, plotter, printer, tape drive and visual display unit are the computer hardware components of

- (ii) is a group of statistical techniques to interpolate the random values such as elevation.
- (iii) Contiguity is a topological concept where two get connected by a common node through arc-node topology.
- (iv) errors are the errors present in source geospatial data which cannot be removed.
- (b) State if the following statements are True (T) or False (F) : $3 \times 1 = 3$
- (i) Geospatial data describes both the locations and the characteristics of non-spatial data.
- (ii) Accuracy refers to the exactness of measured data.
- (iii) Rasterisation is a process that converts the raster data into array of cells.

- (c) Match the items given in column A with those in Column B : $3 \times 1 = 3$

Column A**Column B**

- | | |
|--------------------------|-------------------|
| (i) Open Source Software | (1) Control Point |
| (ii) Bench Mark | (2) Trilateration |
| (iii) GPS | (3) GRASS |

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

- (a) GALILEO
- (b) Disadvantages of GPS over conventional surveying methods
- (c) Data and information
- (d) Methods of raster data input
- (e) Types of data integration
- (f) Components of GIS design
- (g) Types of GIS output

3. Discuss in detail sources of error in GPS observation. 10

Or

Elaborately discuss the advantages and disadvantages of raster and vector data models.

4. Explain various data conversion methods. 10

Or

Discuss in detail various operation in raster analysis. Draw well labelled diagram, wherever required.