MGY-003

POST GRADUATE CERTIFICATE IN GEOINFORMATICS (PGCGI)

Term-End Examination

June, 2017

00372

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

Time : 2 hours   *Maximum Marks : 50*

Note : *All questions are* **compulsory.** *Internal choices are given in questions no. 2 to 4. The marks for each question are indicated against it.*

1. Answer *all* parts :

   (a) Fill in the blank spaces with appropriate word(s).   *4×1=4*

   (i) _____ is known as data about data.

   (ii) GRASS stands for _____ .

   (iii) The word LORAN stands for _____ .

   (iv) DTM stands for _____ .

(b) State if the following statements are
True (T) or *False (F)* : 3×1=3

(i) The fundamental equation of satellite navigation is

Distance = Velocity of light × Travel Time of the satellite signal

(ii) Shortest Path Model is an example of Topological Network Modelling.

(iii) Vector Data Model represents the real world in a regular set of cells in grid pattern.

(c) Match the items given in Column A with those given in Column B : 3×1=3

Column A	*Column B*
(i) Intersection	(1) Mobile GPS receiver
(ii) Rover	(2) Overlay process
(iii) Space segment	(3) Satellites

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

   (a) Trilateration

   (b) Overlay Methods

   (c) Historical Development of GNSS

   (d) Shortest Path and Location-Allocation Network Model

   (e) Cartographic Outputs

   (f) Advantages and Disadvantages of Raster and Vector Data Models

   (g) People as a Component of GIS

3. Explain data integration and its types. Comment on its relevance in GIS. 10

   OR

   (a) What do you understand by Map Digitization ? 5

   (b) Distinguish between Accuracy and Precision. 5

4. Discuss the applications of GPS. 10

   OR

   (a) What is database ? Explain its types and characteristics. 5

   (b) Write about the two components of GIS design. 5