| MGY-002 |

POST GRADUATE CERTIFICATE IN GEOINFORMATICS (PGCGI)

Term-End Examination

◻1131

December, 2017

MGY-002 : REMOTE SENSING AND IMAGE INTERPRETATION

Time : 2 hours   *Maximum Marks : 50*

Note : *All questions are* **compulsory**. *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) NDVI is an abbreviation of _____ .

      (ii) MODIS stands for _____ .

      (iii) PSLV stands for _____ .

      (iv) RISAT is an acronym for _____ .

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

   (i) A digital image corresponds to a two-dimensional array of pixels and each pixel has a particular location and value.

   (ii) Scattering is a physical process associated with light and its interaction with matter.

   (iii) Spectral signatures are unique for each material which allow us to distinguish objects from one another.

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

   Column A   *Column B*

   (i) Rectification   (1) Vehicles for remote sensing devices

   (ii) Thematic mapper (2) Map projection system

   (iii) Platforms   (3) Multispectral scanning Earth resources sensor

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

   (a) Geosynchronous Orbit

   (b) Merits and Demerits of Supervised
       Classification Methods

   (c) Image Enhancement

   (d) Electromagnetic Spectrum

   (e) Accuracy Assessment

   (f) Components of an Image Processing
       System

3. Attempt any *one* part of the following : 10

   (a) What is Image Resolution ? Describe in
       detail, the types of image resolution.

   (b) Describe in detail the electromagnetic
       radiation laws.

4. Attempt any *one* part of the following : 10

   (a) Discuss image classification with emphasis
       on unsupervised classification in detail.

   (b) Describe the ground truth data with
       emphasis on the sampling pattern. Add a
       note on its advantages and disadvantages.