.· 1508901

**MGY-002**

# POST GRADUATE CERTIFICATE IN GEOINFORMATICS (PGCGI)
## Term-End Examination
### June, 2019

**MGY-002 : REMOTE SENSING AND IMAGE INTERPRETATION**

*Time : 2 Hours*   *Maximum Marks : 50*

*Note : **All** questions are compulsory. Questions No. 2 to 4 have internal choices. The marks for each question are indicated against it.*

1.  Answer all parts :

    (a) Fill in the blank spaces with appropriate word(s) :   1 each

        (i)   MXL stands for ............... .

        (ii)  The process of removing geometric distortions and assigning the properties of a map to an image is known as ............ .

        (iii) Spectral reflectance is the ratio of ............ energy to incident energy.

        (iv)  MSS is an abbreviation of ............ .

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

   (i) The formula of NDVI calculation is (NIR + RED)/(NIR – RED).

   (ii) Producer's accuracy is referred to as the probability that any pixel in that category has been correctly classified.

   (iii) A blackbody is a matter which absorbs all radiation incident upon it.

(c) Match the items given in column A with those given in column B.                                    1 each

|  | Column A |  | Column B |
|---|---|---|---|
| (i) | Image processing software | (1) | IKONOS |
| (ii) | Geo Eye | (2) | Quick Bird |
| (iii) | Digital Globe | (3) | Geomatica |

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

                                     5 each

(a) Remote sensing system

(b) Spectral signature of vegetation

(c) Geosynchronous and Sunsynchronous orbits

(d) Anderson's classification scheme

(e) Unsupervised image classification

(f) Any *five* elements of visual image interpretation

3. What is electromagnetic radiation and discuss its interactions with atmosphere in detail.    10

*Or*

What is ground truth data and describe the various patterns for its collection.    10

4. Define image enhancement and explain in detail various image enhancement techniques.

10

*Or*

Categorise remote sensing satellites on the basis of their spatial resolution by giving suitable examples.    10