POST GRADUATE CERTIFICATE IN GEOINFORMATICS (PGCGI)
Term-End Examination
December, 2022

MGY-002 : REMOTE SENSING AND IMAGE INTERPRETATION

Time : 2 Hours   *Maximum Marks : 50*

Note : (i) *All questions are compulsory.*

(ii) *The marks of each question are indicated against it.*

(iii) *Question Nos.* ***2*** *to* ***4*** *have internal choices.*

1. Answer all parts :

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

    (i) .... refers to your ability to identify objects or phenomena in first glance.

P. T. O.

(ii) APPLE is an abbreviation of ....

(iii) The band corresponding to the atmospheric window between 8µm and 14 µm is known as ....

(iv) MODIS is an acronym for ....

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

(i) Producer's Accuracy can be calculated by applying the formula :

Producer's Accuracy =

$$\frac{\text{Total number of correct pixels in a category}}{\text{Total number of categories in the test set}}$$

(ii) Spectral resolution inferes changes in the reflectance or emittance as a function of wavelength.

(iii) Iron oxide content in soil is one of its important characteristics to determine its reflectance property.

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

Column-A   **Column-B**

(i)   Level slicing   (1)   Image enhancement

(ii)   Intensity hue   (2)   Image saturation   interpretation

(iii) Mensuration   (3)   Image fusion

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

4×5=20

(a)   Geometric correction

(b)   Rayleigh scattering

(c)   Spectral characteristics of vegetation

(d)   Elements of image interpretation

(e)   Image resolution

(f)   Clustered sampling pattern

3.   What is NDVI ? How is it measured ? Discuss limitations of NDVI.   10

Or

What is remote sensing ? Discuss remote sensing system and add a note on its limitations.   10

4. Define Land Use and Land Cover. Discuss the steps in producing a Land Use/Land Cover map. 10

Or

What is a sensor system ? Describe across track and along track scanning systems giving suitable diagrams and examples. 10