POST GRADUATE CERTIFICATE IN GEOINFORMATICS (PGCGI)

Term-End Examination

June, 2021

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) NOAA stand for _____ .

(ii) ASTER is an abbreviation of _____ .

(iii) RAR is an acronym of _____ .

(iv) SPOT stands for _____ .

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

(i) Vegetation has a unique spectral signature that can be easily identified by the contrast in red and NIR regions.

(ii) A geosynchronous orbit is an orbit which has an orbital period that matches the Earth's sideral rotation period.

(iii) Classification is the task of listing or counting discrete items visible on an image.

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

	Column A		*Column B*
i.	NIR	1.	1350 – 2500 nm
ii.	Visible Region	2.	700 – 1350 nm
iii.	Middle Infrared	3.	400 – 700 nm

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

(a) Colour Composite

(b) Scattering

(c) Image Interpretation Keys

(d) Types of Satellites

(e) ISODATA Clustering

(f) Methods of Contrast Stretching

(g) Across Track Scanners

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

(a) Define Error Matrix. Discuss its importance and interpretation.

OR

(b) What is NDVI ? List its importance and at least three limitations of NDVI.

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

(a) Describe need and purpose of ground truthing in remote sensing. Emphasise on the sampling pattern.

OR

(b) What is the spectral property of vegetation in different wavelength regions ? How do you assess vegetation health ?