

**POST GRADUATE CERTIFICATE IN
GEONFORMATICS (PGCGI)**

Term-End Examination

00812

December, 2018

**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) : 4×1=4
- (i) The portion of the atmosphere where radiation is not absorbed by the atmospheric constituents is known as _____.
- (ii) The visible, infrared and _____ regions of electromagnetic spectrum are commonly used for remote sensing.
- (iii) RADAR is an example of _____ remote sensing sensor.
- (iv) NRSC is an abbreviation of _____.

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

- (i) Spatial resolution of sensors is referred to as size of pixel.
- (ii) Geometric correction is carried out to improve the accuracy of measurements made by sensors pertaining to the spectral reflectance.
- (iii) Histogram equalisation is one of the forms of linear contrast image enhancement.

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

<i>Column A</i>	<i>Column B</i>
(i) Ground Truth Data	(1) Brightness /Intensity of an Image
(ii) Digital Number	(2) Ground Control Points
(iii) Image to Image Registration	(3) Attribute, Location and Time

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

- (a) Properties of Electromagnetic Radiation
- (b) Transmission
- (c) Resolution and its Types
- (d) Image Histogram
- (e) Types of Sampling Patterns
- (f) Error Matrix

3. What is spectral signature ? Write a detailed account of spectral signature of vegetation and soil. 10

OR

What is visual image interpretation ? Discuss its elements, giving suitable examples. 10

4. Discuss across-track and along-track scanners giving suitable examples and figures. 10

OR

Mention the different types of image classifications and discuss supervised image classification in detail. 10