K–957

Total Page No. : 3]   **[Roll No. ....**

GIS–602

MSCGIS IIIrd Semester Examination Dec., 2023

APPLICATION OF GEO INFORMATICS–III

Time : 2 Hours]   [**Max. Marks :** 70

Note **:–** This paper is of Seventy (70) marks divided into two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given there in. ***Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.***

Section–A

(Long Answer Type Questions)   2×19=38

Note **:–** Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

K–957   (1)   P.T.O.

1. Draw the spectral reflectance curve for the vegetation in the electromagnetic spectrum and explain behavior of the vegetation at various region of the EMR.

2. What is a red edge in EMR and which factor(s) is/are responsible for the red edge ? Why the vegetation appears red in a Standard false color composite ?

3. What are the different levels of LULC classification, explain in details along with the type of satellite data used for the classification at these levels ? Write the names of different urban classes at various LULC level.

4. Write the five applications of Remote Sensing in Forestry and provide the details of various kind of satellite data used in those applications ?

5. What are the challenges in natural hazard management through remote sensing and give few alternatives for overcoming those challenges ?

Section–B

(Short Answer Type Questions)   4×8=32

Note :– Section 'B' contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.

1. Write the names of four factors, which affect the spectral reflectance of vegetation.

K–957   (2)

2. What are the six factors due to which the remote sensing data has become an important for mapping/measuring forest environment variables ?

3. Which are the six disasters for which geo-data is available in Bhuvan Geo-portal, write one line about each of those disaster data sets ?

4. How is geo-informatics useful for urban land use Inventory ?

5. Discuss the role of geo-informatics in telecommunications.

6. Describe the workflow of site suitability analysis through geospatial techniques.

7. Write few advantages of using SAR data for forest resource management.

8. Name the five characteristics of natural hazard and role of GIS for their measurements and mapping.

****