

Code: CE7T2

**IV B.Tech - I Semester – Regular/Supplementary Examinations
March 2021**

**REMOTE SENSING AND GIS APPLICATIONS
(CIVIL ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

PART – A

Answer *all* the questions. All questions carry equal marks

11 x 2 = 22 M

1. a) What is electromagnetic spectrum? Give the wavelength ranges for various EMR present in spectrum.
- b) Write about stereoscopic parallax with neat sketch.
- c) Compare between map and satellite photograph.
- d) Write a short note on atmospheric correction methods.
- e) What are the various classification of maps.
- f) Write a short note on “Layer based GIS”.
- g) Write a short note on buffering techniques.
- h) What is bathymetry ?
- i) Write about the landuse/ landcover in water resources.
- j) Write a short note on use of aerial photography in urban planning.
- k) Write a short note on urban utility mapping using GIS.

PART – B

Answer any ***THREE*** questions. All questions carry equal marks.

$$3 \times 16 = 48 \text{ M}$$

2. a) Explain different types of Aerial Photographs with neat sketches. 8 M
- b) Discuss on the elements of remote sensing with neat sketch. 8 M
3. a) Discuss in detail about various image enhancement techniques. 8 M
- b) Elaborate on the various components of GIS. 8 M
4. a) Compare between vector and raster data. 8 M
- b) Summarise the basic file structures in GIS data file management. 8 M
5. a) Discuss in brief about GIS database required for watershed management. 8 M
- b) Elaborate on the application of remote sensing in water depth estimation. 8 M
6. a) Discuss about the applications of GIS in urban planning. 8 M
- b) Explain the procedure for generation of base maps for urban areas using GIS. 8 M