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Question Paper Code: U9172

B.E./B.Tech. DEGREE EXAMINATION, APRIL / MAY 2025

Open elective

Computer Science Engineering

21UCE972 - REMOTE SENSING & GIS APPLICATION

(Common to EEE, ECE, MECH, IT, Chemical, Agri, BME, CSBS & CSD branches)

(Regulations 2021)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (5x 1 = 5 Marks)

1. Which one of the following helps to identify the objects on the earth surface? CO1-U
(a) atmospheric window (b) signature (c) radiometric (d) None of these
2. Remote sensing techniques makes use of the properties of-----emitted, reflected CO1-U
or diffracted by the sensed objects:
(a) electric waves (b) sound waves (c) electromagnetic waves (d) wind waves
3. 1:50,000 scale map can be compared to the following spatial resolution: CO1-U
(a) 1.50000m (b) 50m (c) 1/50000m (d) Not possible to compare
4. Vegetation with more chlorophyll will reflect more: CO1-U
(a) Ultraviolet energy (b) Emitted energy
(c) Near-infrared (d) Thermal infrared
5. Multi Spectral Scanner (MSS) was on board on which satellite: CO1-U
(a) IRS-1A (b) NOAA-18 (c) SPOT-1 (d) Landsat-1

PART – B (5 x 3= 15 Marks)

6. Explain the interaction of Electromagnetic energy with earth surface features in terms of reflected transmitted and absorbed energy CO1-U
7. What do you mean by airborne sensors? CO3-App
8. Explain the spectacle noise in radar images. CO1-U
9. Create a map about earth features & explain the process of creating your maps CO3-App
10. What do you mean Integrated analysis? CO1-U

PART – C (5 x 16= 80 Marks)

11. (a) Briefly explain about the atmospheric windows in detail. CO1-U (16)
Or
(b) Explain briefly about the spectral signature concept in detail. CO1-U (16)
12. (a) Explore the causes, effects and preventive measures of meteorological satellites. CO1-U (16)
Or
(b) Narrate the various roles of TIR sensors. CO1-U (16)
13. (a) Demonstrate the salient features of preprocessing in detail CO3-App (16)
Or
(b) Construct the multispectral image classification in detail. CO3-App (16)
14. (a) Describe the concept and function of GIS software. CO1-U (16)
Or
(b) Illustrate the new trends in DBMS system. CO1-U (16)
15. (a) Explain in detail about the Land information system CO1- U (16)
Or
(b) Explain briefly about data input by digitization in GIS. CO1- U (16)