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Question Paper Code: 59171

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2018

Open elective

Computer Science and Engineering

15UCE971- REMOTE SENSING AND GIS

(Common to ECE, EEE, EIE, Mechanical, IT, Chemical)

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. The spectral region of the electromagnetic radiation which passes through the atmosphere without much attenuation is known as: CO1- R
(a) ozone hole (b) atmospheric window
(c) ozone window (d) black hole
2. Which one of the following relationship between the wave length (λ), and frequency and the speed (C) of the electromagnetic wave is correct? CO1- R
(a) 800 – 1000km (b)1000 – 1200km (c) 600 -800km (d) 1100 – 1300km
3. The sun – synchronous satellites are revolving at a height of CO2- R
(a) Platform (b) Sensor (c) Orbit (d) None of these
4. A scanning system used to collect data over a variety of different wavelength ranges is called CO2- R
(a) RADAR systems (b) Multispectral scanning
(c) Microwave sensors (d) Active sensors
5. The apparent roughness or smoothness of a region within an image is called CO3- R
(a) Pattern (b) Association (c) Classification (d) Tone

6. ----- of remote sensing imagery involves the identification and measurement of various targets or objects in an image. CO3- R
- (a) Data acquisition (b) Interpretation and analysis
(c) Energy interaction (d) None of these
7. The Refraction factor used to making a map is CO4- R
- (a) Scale (b) Map (c) Projection (d) None of these
8. The graphical representation of the earth features is called CO4- R
- (a) Scale (b) Map (c) Projection (d) None of these
9. The most commonly used method of automatic digitizing CO5- R
- (a) Manual digitizing (b) Scanning (c) Printing (d) None of above
10. DBMS stands for CO5- R
- (a) Database Management System (b) Database Monitoring System
(c) Database Manufacturing System (d) Database Mixing Station

PART – B (5 x 2= 10Marks)

11. Write the applications of remote sensing. CO1- R
12. What are the uses of weather satellite? CO2- U
13. Why is image classification necessary? CO3- U
14. What is Geo-Referencing? CO4- R
15. Write short note on land information system (LIS). CO5- R

PART – C (5 x 16= 80Marks)

16. (a) Explain the atmospheric interaction with electromagnetic radiation. CO1- U (16)
- Or
- (b) What are effects of atmospheric interaction with electromagnetic radiation CO1- U (16)
17. (a) Give a detail specification and characteristics on meteorological satellites. CO2- U (16)
- Or
- (b) Explain the characteristics of Landsat satellite and their sensors. CO2- U (16)
18. (a) What are the interpretation keys and explain them with examples. CO3-U (16)
- Or

- (b) Briefly describe the techniques employed in digital image interpretation. CO3-U (16)
19. (a) Describe the fundamental projection classification of maps. CO4- U (16)
Or
(b) Compare the characteristics of spatial & non-spatial data. CO4- U (16)
20. (a) Write detailed note on data models and data compression. CO5- U (16)
Or
(b) Explain how GIS can be utilized as a land information system? CO5-U (16)

