C **Reg. No. :** | | | | | | | | | | |

Question Paper Code: 99171

B.E./B.Tech. DEGREE EXAMINATION, NOV 2024

Open elective

Computer Science Engineering

19UCE971-REMOTE SENSING & GIS

(Common to CSE,EEE, ECE, MECH, IT , Chemical, Agri and biomedical Engineering branches)

(Regulations 2019)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (5x 1 = 5 Marks)

1. The spectral region of the electromagnetic radiation which passes through the atmosphere without much attenuation is known as: CO1- U

   (a) ozone hole (b) atmospheric window (c) ozone window (d) black hole

2. Which one of the following statements regarding remote sensing is correct. CO1- U

   (a) The emission of electromagnetic (b) radiation from the target

   (c) both (a) and (b) (d) Neither (a) nor (b)

3. Remote Sensing is unique because it provides: CO1- U

   (a) Synoptic view (b) Special information

   (c) Superior information (d) Encrypted information

4. Vegetation with more chlorophyll will reflect more: CO1- U

   (a) Ultraviolet energy (b) Emitted energy

   (c) near infra red (d) Thermal infrared

5. In Hyperspectral remote sensing the EM Spectrumis: CO1- U

   (a) Continuous (b) Discontinuous (c) Discrete (d) None of the above

PART – B (5 x 3= 15Marks)

6.	Explain with neat sketches the components of remote sensing systems.	CO1 -U	
7.	Explain in your words on passive remote sensing	CO1 -U	
8.	Explain the spectacle noise in radar images.	CO1 -U	
9.	What are the various characteristics of map?	CO1 -U	
10.	What is Vectorization?	CO1- U	

PART – C (5 x 16= 80 Marks)

11.	(a)	Explain briefly about the atmospheric scaterring in detail.	CO1- U	(16)
		Or		
	(b)	Explain about the particle theory in detail.	CO1- U	(16)
12.	(a)	Explain the context of sun synchronous and geosynchronous in detail.	CO1- U	(16)
		Or		
	(b)	Explain the context of active and passive sensors in detail.	CO1- U	(16)
13.	(a)	Interpret the concept of Digital image processing in detail.	CO3- App	(16)
		Or		
	(b)	Demonstrate the salient features of preprocessing in detail	CO3- App	(16)
14.	(a)	Explain the various map analysis in detail.	CO1- U	(16)
		Or		
	(b)	Explain the various methods for GIS interpretation.	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)