

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, NOV/DEC 2025***Seventh Semester**Agricultural Engineering***AI3701 - Remote Sensing and Geographical Information System***Regulations - 2021**Duration : 3 Hrs**Maximum : 100 Marks***PART - A (ANSWER ALL QUESTIONS) (Marks 10*2=20)**

<i>Q.No</i>	<i>Questions</i>	<i>BTL</i>	<i>CO</i>	<i>Marks</i>
1.	List the various components of remote sensing system.	L1	1	2
2.	What is electro-magnetic spectrum?	L1	1	2
3.	List any four visual interpretation key elements.	L2	2	2
4.	What is image enhancement?	L1	2	2
5.	Write the Concept of data structure in GIS?	L1	3	2
6.	What is map overlay in GIS?	L1	3	2
7.	What is Digital Elevation Model (DEM)?	L1	4	2
8.	Define the term overlay.	L1	4	2
9.	List the various overlay analysis tools that are used for soil erosion mapping.	L2	5	2
10.	Define precision farming.	L1	5	2

PART - B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a Describe the electromagnetic spectrum with neat sketch for remote sensing data.	L2	1	16
	Or			
	b Explain the spectral reflectance characteristics for soils, water and vegetation.	L2	1	16
12.	a Explain in detail about the types of data products in Remote sensing.	L2	2	16
	Or			
	b Explain the digital image processing of satellite imageries for data interpretation.	L2	2	16
13.	a Explain the hardware and software components in GIS.	L2	3	16
	Or			
	b Explain the history and development of GIS.	L2	3	16

14.	a	Briefly explain the spatial and Non-spatial data models with neat diagram.	L2	4	16
		Or			
	b	Explain the characteristics of raster and vector data analysis. How they are represented in GIS database.	L2	4	16
15.	a	How will you monitor the crop health using GIS? Explain in details with neat examples.	L2	5	16
		Or			
	b	Write a short note on water quality assessment using supervised classification.	L2	5	16