Register No : _____

THE KAVERY ENGINEERING COLLEGE

(An Autonomous Institution)

B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, NOV /DEC 2024

Fifth Semester

Agricultural Engineering

AI3021 – IT in Agricultural System

Regulations - 2021

Duration : 3 Hrs *Maximum : 100 Marks*

*PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)*

Q.No	*Questions*	*BLT*	*CO*	*Marks*
1.	Compare agriculture with precision agricultural farming.	AN	1	2
2.	Construct the purpose of yield analysis.	AP	1	2
3.	Why does artificial light increase crop yield?	RE	2	2
4.	What are the four components of expert system?	RE	2	2
5.	What is reliability of agricultural systems and write briefly the types of reliability?	RE	3	2
6.	Importance of project scheduling in agricultural systems management.	EV	3	2
7.	Explain the basic principle involved in global climatic models.	EV	4	2
8.	Relationship between seasonal forecasting and weather prediction.	AN	4	2
9.	Distinguish between E-Business and E-Commerce.	AN	5	2
10.	Summarize on Information Society in the social perspective of a rural.	UN	5	2

*PART – B (ANSWER ALL QUESTIONS) (Marks 5*13 = 65)*

Q.No			*Questions*	*BLT*	*CO*	*Marks*
11.	a	i	Compare and contrast precision agriculture and predictive farming.	AN	1	9
		ii	Examine the key aspects of remote sensing in agricultural systems.	AN	1	4
			Or			
	b	i	Analyze the role of agricultural yield mapping systems and their benefits.	AN	1	9
		ii	List the key components of crop production modeling.	AN	1	4
12.	a		Evaluate how greenhouse managers optimize environmental conditions to promote optimal crop growth and development and name the technologies and control systems available to maintain the same.	EV	2	13
			Or			
	b		Assess the use of online measurement technologies to monitor and optimize plant growth and development in real-time within controlled environments.	EV	2	13
13.	a	i	Define agricultural systems management and its key components.	RE	3	6
		ii	How are the uses of resources optimized? List the benefits.	RE	3	7
			Or			

	b	i	What is the role of linear programming in agriculture system management?	RE	3	7
		ii	How is project scheduling applied in agriculture system management?	RE	3	6
14.	a		Explain the importance of climate variability and seasonal forecasting in the context of weather prediction models.	UN	4	13
			Or			
	b		Illustrate the general systems approach to applying seasonal forecasts, steps involved and their benefits.	UN	4	13
15.	a		Discover the significance of E-Commerce, E-Business systems and applications.	AN	5	13
			Or			
	b		Analyze the importance of technology enhanced learning systems and solutions in IT agricultural systems.	AN	5	13

*PART – C (Marks 1*15 = 15)*

Q.No		*Questions*	*BLT*	*CO*	*Marks*
16.	a	Analyze the use of Global Positioning System (GPS), Geographical Information System (GIS) and mapping software in agricultural management.	AN	1	15
		Or			
	b	Examine the significance of global climatic models and their potential for seasonal climate forecasting, its components, key elements, benefits and limitations.	AN	3	15