

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL/MAY 2026***Fifth Semester**Agricultural Engineering***AI3015 – Protected Cultivation***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.	Define protected cultivation.	L1	1	2
2.	List any four types of protected structures used in horticultural crops.	L1	1	2
3.	What are the advantages of hydroponics over soil-based cultivation?	L1	2	2
4.	Mention the role of ventilation in greenhouses.	L1	2	2
5.	What are the hi-tech methods used for tomato cultivation under protected conditions?	L1	3	2
6.	Write short notes on integrated pest management in cucumber under protected cultivation.	L1	3	2
7.	Define precision farming.	L1	4	2
8.	Identify the role of GIS and GPS in precision farming.	L1	4	2
9.	List any four horticultural crops suitable for precision farming.	L1	5	2
10.	What are the benefits of drip irrigation and fertigation in 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 i Explain the scope and importance of protected cultivation in horticultural crops.	L2	1	8
	ii Discuss the different types of protected structures with neat sketches.	L2	1	8
	Or			
	b Explain the role of cladding / glazing materials in protected cultivation.	L2	1	16
12.	a i Explain hi-tech protected cultivation techniques for tomato and capsicum.	L3	2	8
	ii Discuss IPDM in cucumber under protected conditions.	L2	2	8
	Or			
	b i Write short notes on post-harvest handling of strawberry and melons.	L2	2	8
	ii Explain the role of fertigation in vegetable crops under protected cultivation.	L2	2	8

13.	a	i	Explain protected cultivation practices for cut roses and gerbera.	L2	3	8
		ii	Write about the cultivation of orchids under protected conditions.	L2	3	8
			Or			
	b		Describe post-harvest handling of carnation and chrysanthemum.	L2	3	16
14.	a		Explain in details about the concept and principles of precision farming.	L3	4	16
			Or			
	b	i	Discuss the application of robotics and drones in horticulture.	L3	4	8
		ii	Explain the use of sensors for data gathering in precision farming.	L3	4	8
15.	a	i	Discuss precision farming practices in banana and grapes.	L5	5	8
		ii	Explain the precision farming techniques for tomato and chili.	L5	5	8
			Or			
	b		Describe the application of precision farming in cut flowers (rose, chrysanthemum).	L5	5	16