

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, NOV/DEC 2025****Seventh Semester****Agricultural Engineering****AI3019- Sustainable Agriculture and Food Security****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 the term Net Sown Area and Gross Cropped Area.	L1	1	2
2.	Write notes on Cropping period.	L2	1	2
3.	What is Sustainable Agriculture?	L1	2	2
4.	Define the term Agro ecosystem.	L2	2	2
5.	Differentiate between Organic and Natural Farming.	L1	3	2
6.	Write about rainfed farming and list out the crops grown in that ecosystem.	L2	3	2
7.	List out the Major food grains, Pulses and Oil seeds in India.	L1	4	2
8.	What is meant by vertical farming? Mention its technologies.	L2	4	2
9.	What is Agricultural credit policy?	L1	5	2
10.	Enlist few policies in food and crop production.	L2	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 Characteristics of Monsoon in India.	L2	1	8
	ii Enumerate the chief reasons for leaving the land as non-cultivated area.	L2	1	8
	Or			
	b Describe in detail about the land degradation, causes and its management.	L2	1	16
12.	a i Brief the impact of climate change on Agriculture.	L2	2	8
	ii Explain about the effect of climate change on crop yield.	L2	2	8
	Or			
	b Describe in detail about the indicators of sustainable food availability.	L2	2	16
13.	a i Explain the role of organic farming in controlling other organisms.	L3	3	8
	ii Discuss about the rainfed farming and its sustainability.	L3	3	8
	Or			
	b Describe in detail about the principles and practices of Natural farming.	L3	3	16

14.	a	i	Explain the impact of market forces on food production and food security.	L3	4	8
		ii	Write about Demand and Supply Trends and Projections of Food in India.	L3	4	8
		Or				
	b		Describe about the indicators of sustainability of food and nutritional security India.	L3	4	16
15.	a	i	Brief about the policies for sustainable livelihood management.	L2	5	8
		ii	Explain the Crop insurance and its policies in India.	L2	5	8
		Or				
	b		Describe in detail about the about virtual water trade.	L2	5	16