

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, NOV/DEC 2025***Seventh Semester**Electronics and Communication Engineering**CRA332-Drone Technologies**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.	Compare UAV and UAS.	L2	1	2
2.	Mention the impact of drones in agriculture.	L1	1	2
3.	What are the energy sources used for drones?	L1	2	2
4.	Differentiate fixed wing and multi-rotor drones.	L2	2	2
5.	Infer the role of sensors in drone flying.	L2	3	2
6.	Relate onboard storage and removable storage in drones.	L2	3	2
7.	List the factors to be considered while choosing a drone for any application.	L1	4	2
8.	Mention the use of drone in power line inspection.	L1	4	2
9.	What are the safety risks to be done in drone operation?	L1	5	2
10.	How does swarm intelligence help in drone applications?	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 history and evolution of Drones.	L2	1	16
	Or			
	b Explain the opportunities and applications of drone technology for business and entrepreneurship.	L2	1	16
12.	a i Classify UAV and compare their advantages and limitations.	L2	2	8
	ii Write the steps to assemble the drones.	L2	2	8
	Or			
	b Discuss in detail the methods of drone programming.	L2	2	16
13.	a Develop a step by step standard operating procedure for operating a drone in a controlled environment, ensuring compliance with safety regulations.	L4	3	16
	Or			
	b i Analyse how a linked mobile device and application can control, monitor the drone operations.	L4	3	8
	ii Compare the different sensors used in flight control and operation.	L4	3	8

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| 14. | a | An insurance company wants to use drones to assess the natural disaster of earthquake for claim verification. Propose a detailed workflow, data collection and data analysis. | L4 | 4 | 16 |
| | | Or | | | |
| | b | A farmer with large scale farm wants to use drones for crop monitoring, irrigation control and pesticide spraying. Explain the selection of suitable drone and discuss the implementation. | L4 | 4 | 16 |
| 15. | a | Analyse the current regulatory challenges, safety guidelines for aviation of drones. | L4 | 5 | 16 |
| | | Or | | | |
| | b | Infer how miniaturization and AI integration will transform drone applications in healthcare. | L4 | 5 | 16 |