Register No : _____

THE KAVERY ENGINEERING COLLEGE

(An Autonomous Institution)

UG/PG DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY 2026

Sixth Semester

Biomedical Engineering

OEE351-RENEWABLE ENERGY 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 about primary and secondary sources of energy.	L2	1	2
2.	Identify other non-conventional energy sources	L2	1	2
3.	Define Collector efficiency	L1	2	2
4.	Interpret about greenhouse effects.	L2	2	2
5.	What is meant by pitch angle?	L1	3	2
6.	Compare the advantages of vertical axis wind turbine over horizontal axis one.	L2	3	2
7.	Tell the main classification of bio gas plants.	L1	4	2
8.	What is meant by energy plantation	L1	4	2
9.	Show the classification of Tidal power plants.	L2	5	2
10.	How hydrogen fuel cells are classified?	L1	5	2

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

Q.No			*Questions*	*BLT*	*CO*	*Marks*
11.	a	i	Explain the prospects of non-conventional energy sources in India.	L2	1	8
		ii	Describe the advantage and limitations of renewable energy sources.	L2	1	8
			Or			
	b		Explain about the recent progress in renewable energy sources in India.	L2	1	16
12.	a		Describe the different types of energy storage methods used in solar system.	L3	2	16
			Or			
	b		Explain the operation of solar cell with equivalent circuit and its I-V characteristics.	L3	2	16
13.	a		Sketch and explain the working of horizontal shaft wind mill with all its required components.	L3	3	16
			Or			
	b		Explain the environmental impact of wind energy.	L3	3	16
14.	a		Explain the bio mass conversion technologies.	L2	4	16
			Or			
	b		Explain with the help of neat diagram of power generation system using land fill gas. What are its basic advantages?	L2	4	16
15.	a		Illustrate the various methods of ocean thermal electric power generation	L3	5	16
			Or			
	b		Examine the relative advantages and limitations of tidal power plant. What are the method adopted to supply continuous power?	L3	5	16