

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, NOV/DEC 2025***Sixth Semester**Biomedical Engineering***CBM368 – Therapeutic Equipment***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>BLT</i>	<i>CO</i>	<i>Marks</i>
1.	Differentiate between internal and external pacemakers.	L2	1	2
2.	Why is ventilator testing necessary?	L1	1	2
3.	List the function of a peripheral nerve stimulator.	L1	2	2
4.	State the purpose of a cervical traction machine.	L1	2	2
5.	Outline the benefits of facial rejuvenation.	L1	3	2
6.	Differentiate between a treadmill and an exercise bike.	L2	3	2
7.	How does a low-speed handpiece differ from a high-speed handpiece?	L2	4	2
8.	What is the role of a dental compressor in a dental clinic?	L2	4	2
9.	Define the principle of shortwave diathermy.	L1	5	2
10.	Enumerate the significance of Nd-YAG laser in surgical applications.	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 Explain the principle and operation of DC defibrillator.	L2	1	16
	Or			
	b Describe the basic principles of pneumatic and electronic ventilators with suitable examples.	L2	1	16
12.	a Analyze the mechanism of therapeutic radiation and its impact on tissue healing.	L4	2	16
	Or			
	b Discuss the principles of inferential therapy and how it differs from other pain relief techniques.	L4	2	16
13.	a Explain the working principle and benefits of an ultrasonic spot remover in skin treatment.	L3	3	16
	Or			
	b Apply deep heat therapy principles to explain its effects on various body tissues.	L3	3	16

14.	a	Explain the evolution of rotary equipment in dentistry and its impact on treatment efficiency.	L2	4	16
		Or			
	b	Describe the components of a dental X-ray machine and explain how they function in capturing images for diagnosis.	L2	4	16
15.	a	Illustrate the working principle of lithotripsy and its role in treating kidney stones.	L2	5	16
		Or			
	b	Explain the working mechanism and medical applications of a CO ₂ laser.	L2	5	16