

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, NOV /DEC 2024

Seventh Semester

Biomedical Engineering

OBT356-Life Style Diseases

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 communicable and lifestyle diseases.	AN	1	2
2.	Explain one way in which illicit drug use can affect mental health.	UN	1	2
3.	Define one major cause of mouth cancer.	RE	2	2
4.	Explain why a biopsy is an important diagnostic tool for cancer.	UN	2	2
5.	Compare the effects of high blood pressure and high cholesterol on coronary artery disease risk.	UN	3	2
6.	What is cardiac rehabilitation?	RE	3	2
7.	Explain the Type 1 diabetes.	UN	4	2
8.	What does BMI stand for, and how is it calculated?	RE	4	2
9.	What does COPD stand for?	RE	5	2
10.	Explain one benefit of nasal breathing over mouth breathing.	UN	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*13 = 65)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a i Define lifestyle diseases and discuss the role of risk factors like unhealthy eating habits, smoking, and alcohol consumption in their development.	UN	1	7
	ii Discuss the impact of obesity, diabetes, and respiratory diseases on overall health and quality of life.	UN	1	6
	Or			
	b i Examine how stress, lack of physical activity, and illicit drug use contribute to the prevalence of lifestyle diseases.	UN	1	6
	ii Evaluate the importance of diet and exercise in preventing lifestyle diseases, particularly cardiovascular diseases and cancer.	UN	1	7
12.	a i Discuss the types of cancers influenced by lifestyle factors.	UN	2	6
	ii Examine the role of tobacco usage as a major cause of cancers.	UN	2	7
	Or			
	b i Explain the role of biomarkers in diagnosing cancers. How do they assist in early detection?	UN	2	7
	ii Illustrate cervical and oesophagus Carcinoma.	UN	2	6

13.	a	i	Explain coronary atherosclerosis and its role in the development of coronary artery disease.	UN	3	7
		ii	Discuss how excess lipid component and alcohol abuse contribute to the risk of coronary artery disease.	UN	3	6
Or						
	b	i	Describe the diagnostic tools used to detect coronary artery disease by using electrocardiography.	UN	3	7
		ii	Evaluate the importance of exercise and cardiac rehabilitation in the treatment and management of coronary artery disease.	UN	3	6
14.	a	i	Describe the types of Diabetes Mellitus and highlight the differences between Type 1 and Type 2 diabetes.	UN	4	7
		ii	Explain the process of blood glucose regulation in the body and discuss how diabetes disrupts this balance.	UN	4	6
	Or					
	b	i	Discuss the complications associated with diabetes and the health risks it poses in both children and adults.	UN	4	6
		ii	Examine the relationship between pediatric and adolescent obesity focusing on the role of Body Mass Index (BMI).	UN	4	7
15.	a	i	Define chronic lung diseases.	UN	5	6
		ii	Differentiate between asthma and Chronic Obstructive Pulmonary Disease (COPD).	UN	5	7
	Or					
	b	i	Analyze how different breathing patterns can impact respiratory health.	UN	5	7
		ii	Explain the role of pulmonary function testing in diagnosing chronic lung disease.	UN	5	7

*PART – C (Marks 1*15 = 15)*

<i>Q.No</i>	<i>Questions</i>			<i>BLT</i>	<i>CO</i>	<i>Marks</i>
16.	a	i	Discuss the impact of Lung cancer, Mouth cancer, Skin cancer, Cervical cancer. In your view, describe how biomarkers are used in the diagnosis of Lung cancer, Mouth cancer, Skin cancer, Cervical cancers.	AN	2	8
		ii	Analyze the role of coronary atherosclerosis in the development of coronary artery disease. Explain.	AN	2	7
Or						
	b	i	What is diabetes? Describe in detail how obesity contributes to the development and progression of diabetes.	AN	3	8
		ii	Discuss the various types of chronic lung diseases. Explain the causes and risk factors on the same.	AN	3	7