

PART C (10 x 5 = 50 Marks)

21. Compare and contrast mechanical and chemical digestion. CO1 [K₂]
22. Classify the types of diabetes mellitus and identify its causes and symptoms. CO1 [K₂]
23. Illustrate the major events in the cardiac cycle. CO2 [K₂]
24. Describe the significance of RAAS in regulating the blood pressure. CO2 [K₂]
25. As per NIH guidelines, depict the clinical manifestations of COVID-19. CO3 [K₂]
26. Construct a flow sheet explaining the mechanism of urine formation. CO3 [K₃]
27. Tabulate the different parts of neuron along with its function. CO4 [K₂]
28. Enumerate the role of dopamine in Parkinson disease. CO4 [K₂]
29. Determine the different biomarkers whose levels in the blood serum used to study the kidney function and explain it. CO6 [K₃]
30. Explain why OGTT is used as a screening test for type 2 diabetes. CO6 [K₃]

Answer any TWO Questions

PART D (2 x 10 = 20 Marks)

31. A person experienced sudden chest pain, which travels from left arm to neck, shortness of breath, sweating, nausea, vomiting, abnormal heart beating, anxiety, fatigue, weakness, stress and depression. Investigate his medical condition and identify the etiology of his symptoms. CO2 [K₃]
32. Illustrate the different phases of menstrual cycle and inspect the various physiological changes associated with it. CO5 [K₂]
33. The following is a lipid profile of a person: CO6 [K₄]

Analyte	Value	Ref.Value
LDL	200 mg/dL	< 100 mg/dL
HDL	50 mg/dL	40 – 60 mg/dL
HDL/LDL ratio	0.25	> 0.4

Examine the above medical report and evaluate the onset of different medical complications.
