Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

Mid - Term Examinations –October2025

Date: 31-10-2025 **Time:** 02:30Pm – 04:00Pm

School: SAHS	**Program**: BSC AOT	
Course Code: AOT2102	**Course Name:** PHYSIOLOGY	
Semester: I	**Max Marks**:50	**Weightage**:25%

CO - Levels	CO1	CO2	CO3	CO4	CO5
Marks	20	20	10	×	×

Instructions:

(i) Read all questions carefully and answer accordingly.

(ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks. **10 Qx 2M=20M**

1	Define haemostasis?	**2 Marks**	**L1**	**CO1**
2	Name the three main types of blood cells?	**2 Marks**	**L1**	**CO1**
3	State the normal range of hemoglobin in adults?	**2 Marks**	**L1**	**CO1**
4	What is the function of plasma proteins?	**2 Marks**	**L1**	**CO1**
5	Mention the phases of blood coagulation?	**2 Marks**	**L2**	**CO1**
6	What are ABO and Rh blood groups?	**2 Marks**	**L1**	**CO1**
7	Define cardiac output?	**2 Marks**	**L2**	**CO1**
8	What are heart sounds? Name any two?	**2 Marks**	**L1**	**CO1**
9	Write two determinants of arterial blood pressure?	**2 Marks**	**L2**	**CO1**
10	Name the common waves of a normal ECG tracing?	**2 Marks**	**L1**	**CO1**

Part B

Answer any 4 questions. Each question carries 5 marks. **4Q x 5M=20M**

11.	Describe the composition and functions of blood?	**5 Marks**	**L2**	**CO2**
12.	Explain the mechanism of clot formation (coagulation cascade)?	**5 Marks**	**L2**	**CO2**
13.	Discuss the formation and functions of red blood cells (RBCs) and the process of erythropoiesis?	**5 Marks**	**L2**	**CO2**
14.	Explain the structure and function of cardiac muscle and its importance in cardiac conduction?	**5 Marks**	**L3**	**CO2**
15.	Write short notes on regulation of arterial blood pressure (short- and long-term mechanisms)?	**5 Marks**	**L4**	**CO2**
16.	Describe the cardiac cycle and correlate it with the heart sounds?	**5 Marks**	**L4**	**CO2**

PART C

Answer the questions **1Q x 10 M=10M**

17.	Discuss the electrophysiology of the heart with a detailed explanation of the ECG 12-lead system and interpretation of common arrhythmias?	**10 Marks**	**L5**	**CO3**
	Or			
18.	Prepare a comparative chart showing how blood components and cardiac parameters influence hemodynamic stability during anesthesia?	**10 Marks**	**L6**	**CO3**