8. RESPIRATION AND CIRCULATION

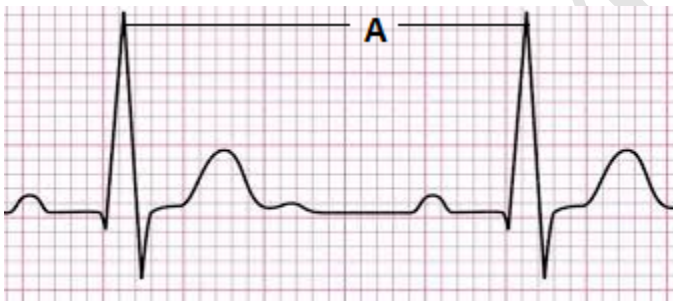## MULTIPLE CHOICE QUESTIONS (1 MARK EACH)

1   In human respiration, chemical energy is released in the form of ____.
A) Acetyl co-enzyme A
B) ADP
C) $ADPH_2$
D) **ATP**

2   Alveoli provide the surface area for exchange of _____.
A) food
B) enzymes
C) **gases**
D) hormones

3   The movement of diaphragm, intercostal muscles and rib cage helps in _____.
A) digestion
B) circulation
C) excretion
D) **respiration**

4   The volume of air that remains in the lungs after maximum respiration is _____.
A) 1000 to 1100 ml
B) **1100 to 1200 ml**
C) 2000 to 3000 ml
D) 5200 to 5800 ml

5   Find out the example in which due to absence of respiratory pigment transport of respiratory gases does not takes place.
A) **Cockroach**
B) Scoliodon
C) Frog
D) Human

6   Which of the following has thickest wall?
A) Right auricle
B) Right ventricle
C) Left auricle

D) **Left ventricle**

7   The phase of contraction of heart is termed as _____.
A) diastole
B) **systole**
C) heart beat

D) heart sound

8   The free edges of cuspid valves are attached to the papillary muscles of the heart by fibres are called _____.
A) **chordae tendinae**
B) columnae carneae
C) connecting fibres

D) autorhythmic fibres

9   Ventricular depolarization is represented by _____.
A) P wave   B) **QRS complex**   C) T wave   D) P and T waves
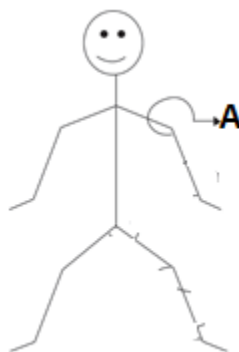
10   The erythropoeitic tissue in adult is mainly found in _____.
    A) kidney
    B) liver
    C) **red bone marrow**

    D) spleen
11   The technique used to detect blockages in blood vessels is
    A. Angiography
    B. ECG
    C. EEG
    D. sphygmomanometer

VERY SHORT ANSWER TYPE QUESTIONS (1 MARK EACH)

1   Name the cartilage which divides the nasal cavity into right and left nasal chambers.
2   Give the function of epiglottis.
3   Define total lung capacity.
4   Sachin shows symptoms of inflammation of the sinuses and mucous discharge due to viral and bacterial infection. Identify the disorder.
5   Define haematology.
6   Which type of blood flows through pulmonary veins?
7   In between which layers of pericardium, pericardial fluid is present?
8   How many molecules of haemoglobin are found in each erythrocyte?
9   Identify 'A' from the following ECG.

10   Identify the pulse point 'A' from below given diagram.

11.   What is sinusitis?
12   What is ventilator?
13   Define heart transplant.
14   Name the technique used to detect blockages in blood vessels.

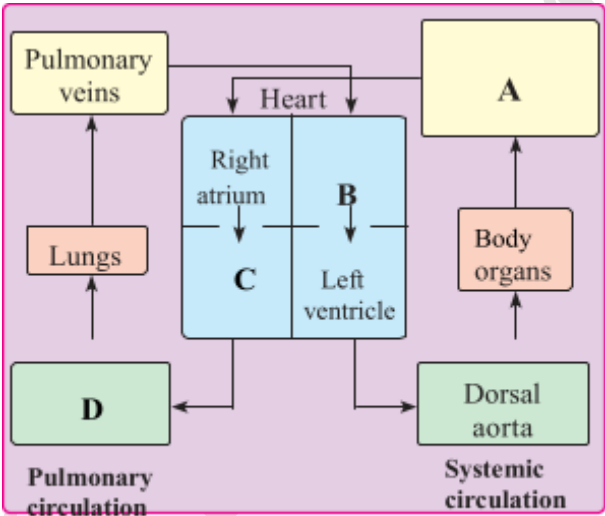**SHORT ANSWER TYPE QUESTIONS(SA-I) (2 MARKS)**

1   Fill in the blanks with the help of chart.

Organism	Habitat	Respiratory surface/ organ
Coelenterates	---------	---------
Spiders	---------	---------

2   Define Bohr effect and Haldane effect.
3   Give any two effects of carbon monoxide poisoning.
4   Define intracellular transport and extracellular transport.
5   Name the pigment and enzyme found in erythrocytes?
6   Draw diagram of conducting system of human heart. Label SA node and bundle of His.
7   How a portal vein differs from normal vein?
8   Write an account of silent heart attack.
9   Write a note on symptoms of laryngitis.
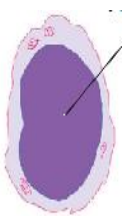
SHORT ANSWER TYPE QUESTIONS(SA-II) (3 MARKS)

1   Distinguish between inspiration and expiration.
2   Write a note on Hering-Breuer reflex.
3   Define Hamburger's phenomenon.
          Add a note on it.
4   Draw the chart of double circulation and label A, B, C and D.

5   Write a note on coagulation of blood.
6   Define hypertension. Explain coronary artery disease and angina pectoris.
7   Draw diagrammatic representation of cardiac cycle. Explain ventricular systole.
8.   Write symptoms, causes and treatment for pneumonia.

LONG ANSWER TYPE QUESTIONS(LA) (4 MARKS)

1. With the help of labelled diagram explain the exchange of gases between alveolus and capillary.

2. With the help of chart identify and write the function of any **four** leucocytes.

Type	Leucocytes	Name of cell	Function
Granulocytes		------------	------------
		------------	------------
		------------	------------
Agranulocytes		------------	------------
		------------	------------

3. Draw labelled diagram of internal structure of human heart.
   Label right atrium, mitral valve, left ventricle and pulmonary semilunar valve.
   Write a function of Eustachian and tricuspid valve found in human heart.