



12th Science : Biology
Respiration and Circulation,

DATE:

TIME: 1 hour

MARKS: 25

SEAT NO:

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Note:-

1. All Questions are compulsory.
2. Numbers on the right indicate full marks.

Section A

Q.1 Select and write the correct answer.

(4)

1. The cells lining the blood vessels belong to the category of _____.
A) columnar epithelium B) connective tissue
C) smooth muscle tissue D) squamous epithelium
2. Diapedesis can be seen in _____ cell.
A) RBC B) WBC
C) Platelet D) neuron
3. Identify the correct respiratory pathway.
A) pharynx → trachea → larynx → lungs → bronchus B) larynx → pharynx → lungs → trachea → bronchus
C) pharynx → larynx → bronchus → lungs → trachea D) pharynx → larynx → trachea → bronchus → lungs
4. Which blood vessel ends up in capillaries?
A) Arteries B) Veins
C) Pulmonary vessels D) None of the above

Q.2 Answer the following.

(3)

1. What indicated the ventricular relaxation in an ECG?
2. Name the organ which prevents the entry of food into the trachea while eating.
3. Define the term: Erythropoiesis

Section B
Attempt any Four

- Q.3 Distinguish between Transport of O₂ and Transport of CO₂. **(2)**
- Q.4 What is the relation between immunity and organ transplantation? **(2)**
- Q.5 Distinguish between RBCs and WBCs **(2)**
- Q.6 AV node is necessary for the conduction of the cardiac impulse. **(2)**
- Q.7 Write a note on Bronchi and Bronchioles. **(2)**
- Q.8 Write short note : Heart failure **(2)**

Section C
Attempt any Two

- Q.9 Write a short note on Artificial ventilation. **(3)**

Q.10 Write a note on blood plasma. (3)

Q.11 Write a note on Silicosis. (3)

Section D
Attempt any One

Q.12 What is a cardiac cycle? Describe the events that occur during one complete cardiac cycle of the human heart. OR Describe the working of heart. (4)

Q.13 Explain in brief: The transport of carbon dioxide in internal respiration. (4)