Zoology Teachers Association Malappuram

First Year Higher Secondary Revision Series Test-2022

Total Score: 30 **Time: 1Hour**

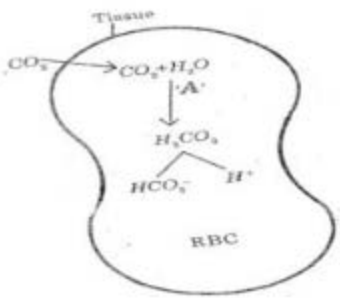
Exam Number: 4

Zoology

BREATHING AND EXCHANGE OF GASES AND BODY FLUIDS AND CIRCULATION

Answer all questions from 1 to 3. Each carry 1 score

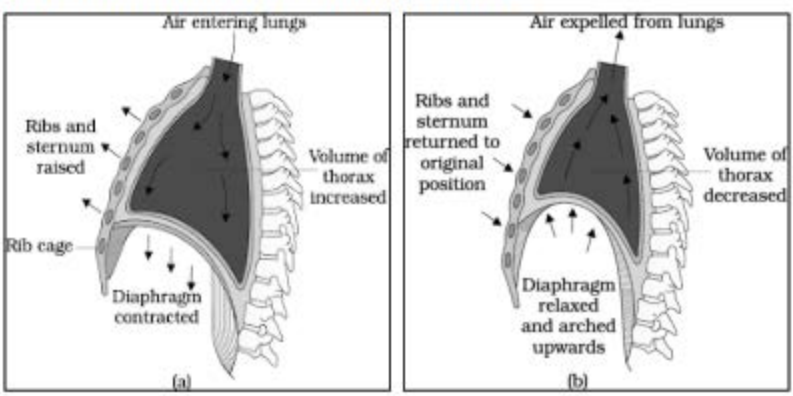
1. CO_2 Transport in the form of bicarbonate ion is picturised below. Observe the diagram and identify the enzyme noted as "A"



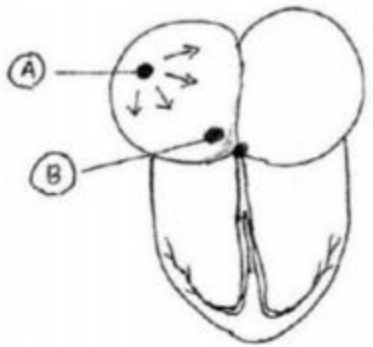
2. Plasma without clotting factors is called .....
3. Person with blood group B has....
   (a) Antigen A and antibody b
   (b) Antigen B and antibody a
   (c) Both Antibodies
   (d) No antigen and antibody

Answer any Nine questions from 4 to 14. Each carry 2 score

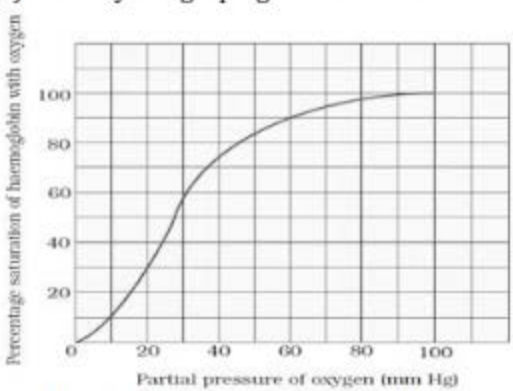
4. (a) Identify the diagram 'a' and' b'
   (b) Explain the mechanism behind 'a' or 'b'



5. (a)Name the nodal tissue 'A' and 'B'
   (b)Why 'A' is called pace maker



6. The blood pressure of a person is shown as 170/130mmHg. What would be his disease? How it affect his body?
7. Stethoscope is an instrument which is used to detect the sounds of the heart.
   (a) Mention the two sound of the heart?
   (b) Give the cause of heart sound?
8. Define the following terms
   (a) Tidal volume (TV)
   (b) Residual volume (RV)
9. (a) Identify the graph given below

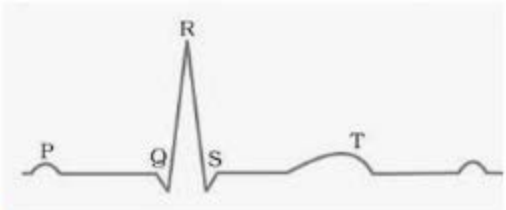


   (b) List the factors responsible for the formation and dissociation of oxyhaemoglobin
10. Name the diseases
   (a) Difficulty in breathing causing wheezing
   (b) Chronic disorder in which alveolar walls are damaged due to which respiratory surface is decreased
11. Comment on
   (a) Systemic circulation (b) Pulmonary circulation

12. (a) Name any two disorders of circulatory system
    (b) Suggest any two measures to avoid these disorders?
13. For completion of respiration process, write the given steps in sequential manner.
    (a) Diffusion of gases (0_2 and $C0_2$) across alveolar membrane.
    (b) Transport of gases by blood.
    (c) Utilisation of 0_2 by the cells for catabolic reactions and resultant release of $C0_2$.
    (d) Pulmonary ventilation by which atmospheric air is drawn in and $C0_2$ rich alveolar air is released out.
    (e) Diffusion of 0_2 and $C0_2$ between blood and tissues.
14. Find the odd one and write the reason for selection
    (a) Emphysema, Jaundice, Occupational Respiratory disorder, Asthma
    (b) Diaphragm, Adominal muscle, Biceps, Intercostal muscles

Answer any three questions from 15 to 18. Each carries Three score

15. Diagrammatic representation of a standard ECG is given below

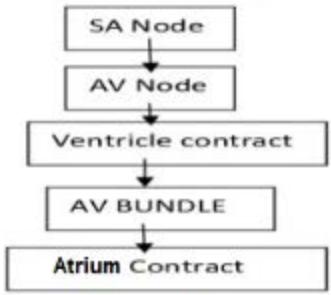


    (a) Expand ECG
    (b) What does 'P','T' waves denote?
    (c) Mention the clinical significance of ECG?
16. Match the terms in column A with those in columns B and C

	A	B	C
a)	Neutrophils	2 - 3%	Immune response
b)	Eosinophils	20 - 25%	Phagocytic
c)	Lymphocytes	60 - 65%	Allergic reaction

17. Blood coagulation, is a mechanism to prevent the excessive loss of blood.
    (a) Identify the enzyme help the conversion of inactive fibrinogen.
    (b) Mention the role of Thrombokinase.
    (c) Which ion is necessary for blood clotting?

18. Observe the flow chart and answer the question given below



(a) Redraw the flow chart correctly?

(b) Explain the concept of hepatic portal system