8. Respiration and Circulation

1) The partial pressure of carbon-dioxide of blood entering the pulmonary capillaries is _____ mmHg.
(a) 40 (b) 46 (c) 45 (d) 104

2) During expiration _____ contracts.
(a) Thorax (b) Ribs
(c) Lungs (d) Sternum

3) The ventricular systole lasts for_____ in normal condition.
(a) 0.4 second (b) 0.5 sec
(c) 0.3 sec (d) 0.8 sec

4) The bundle of His/ Tawara branches starts from _____.
(a) SA node (b) AV node
(c) Coronary sinus (d) Purkinje fibers

5) Ligamentum arteriosum in embryonic duct called _____.
(a) Atrioventricular groove
(b) Inter-ventricular sulci
(c) Ductus arteriosus
(d) Inferior vena cava

6) _____is called also known as atherosclerosis.
(a) Coronary artery disease
(b) Angina pectoris
(c) Hypertension
(d) Heart transplant

7) _____ occurs in birds and mammals.
(a) Single circulation
(b) Double circulation
(c) Open circulation
(d) None of the above

8) In _____ circulation, the blood flows with high pressure and contains respiratory pigments like hemoglobin for transportation of respiratory gases.
(a) Single circulation
(b) Closed circulation
(c) Open circulation
(d) Pulmonary circulation

9) In _____ blood is circulated through the haemocoels.
(a) Single circulation
(b) Closed circulation
(c) Open circulation
(d) Pulmonary circulation

10) The blood contains_____ of proteins.
(a) 75% (b) 90%
(c) 7 to 8% (d) 1 to 2%

11) The muscular structure that separates the thoracic and abdominal cavity is _____.

(a) Pleura (b) Diaphragm
(c) Trachea (d) Epithelium

12) What is the minimum number of plasma membrane that oxygen has to diffuse across to pass from air in the alveolus to haemoglobin inside a R.B.C.?
(a) Two (b) Three (c) Four (d) Five

13) _____ is a sound producing organ.
(a) Larynx (b) Pharynx
(c) Tonsils (d) Trachea

14) The maximum volume of gas that is inhale during breathing in addition to T.V is _____.
(a) Residual volume (b) I.R.V.
(c) G.R.V. (d) Vital capacity

15) The upper respiratory system does not include _____ .
(a) Throat (b) Nose
(c) Nasopharynx (d) Larynx

16) The olfactory chamber of nose responsible for_____.
(a) Trapping the dust
(b) Detection of smell
(c) Moistening the inhaled air
(d) None of the above

17) Protists show _____ as a respiratory organ.
(a) Book gills (b) Lungs
(c) Cloaca (d) Plasma membrane

18) _____ is the common passage of food and air.
(a) Larynx (b) Trachea
(c) Nose (d) Pharynx

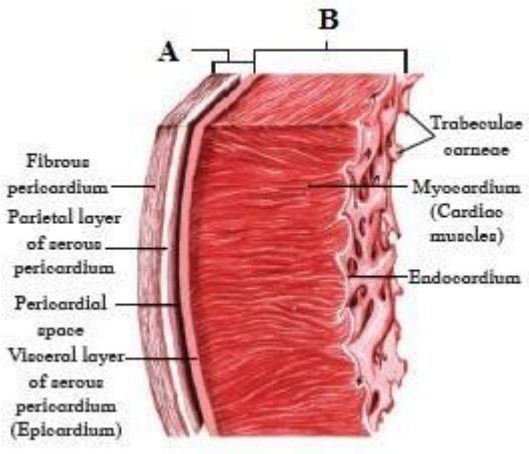
19) Cockroach shows which kind of circulatory system?
(a) Open (b) Closed
(c) Lymphatic (d) Double

20) _____ used during surgery to support breathing.
(a) Ventilator
(b) ECG
(c) Sphygmomanometer
(d) All of these

21) The process of the WBC movement out of the capillary wall called _____ .
(a) Erythrocytopenia (b) Diapedesis
(c) Leucocytosis (d) Polycythemia

22) _____ respiratory system is not caused by bacteria and viruses.
(a) Sinusitis (b) Pneumonia
(c) Laryngitis (d) Emphysema

23) The A and B in the diagram is _____



(a) Pericardium and Heart
(b) Diaphragm and epithelium
(c) Pericardium and Heart wall
(d) Diaphragm and lung tissue

24) _____ lies in mediastenum.
(a) RBC (b) WBC (c) Heart (d) Lung

25) _____ secrete serotonin.
(a) RBC (b) WBC
(c) Monocytes (d) Thrombocytes

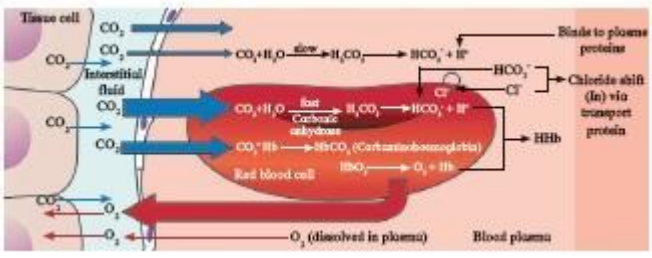
26) Diapedesis is performed by _____.
(a) Erythrocytes (b) Thrombocytes
(c) Adipocytes (d) Leucocytes

27) Pacemaker of heart is _____.
(a) SA node (b) AV node
(c) His bundle (d) Purkinje fibers

28) Which of the following animals do not have closed circulation?
(a) Earthworm (b) Rabbit
(c) Butterfly (d) Shark

29) Which of the following is without nucleus?
(a) Red blood corpuscle (b) Neutrophill
(c) Basophill (d) Lymphocyte

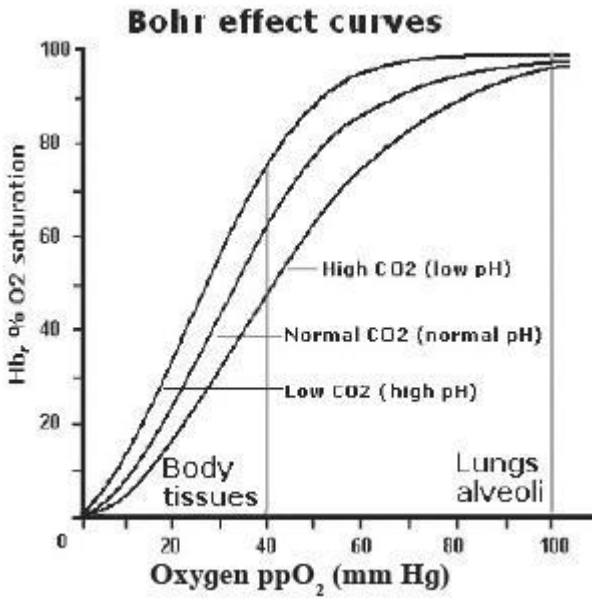
30) The below picture explains _____.



(a) Oxygen pickup and carbon dioxide pickup at the tissue

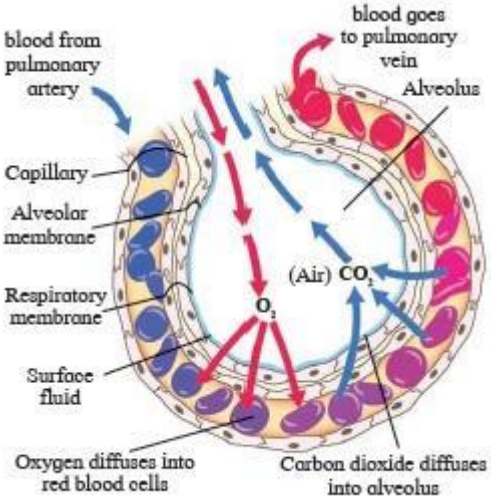
(b) Oxygen release and carbon dioxide pickup at the tissue
(c) Oxygen pickup and carbon dioxide release in the lungs
(d) Oxygen release and carbon dioxide release in the lungs

31) Identify the diagram below.



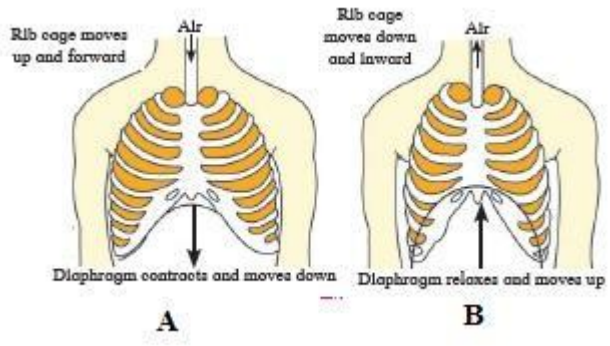
(a) Oxygen dissociation curve
(b) Bohr effect
(c) Haldane effect
(d) Both a and b

32) The below diagram explains exchange of gases between _____.



(a) Alveolus and capillary
(b) Alveolus and vain
(c) Alveolus and lymph
(d) None of these

33) The 'A' and 'B' in the diagram are _____



(a) Cellular and External respiration
(b) Inspiration and Expiration
(c) Internal and external respiration
(d) External Expiration

34) The fluid seen in the intercellular spaces in Human is _____
(a) Blood (b) Lymph
(c) Interstitial fluid (d) Water

35) $C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O +$_____.
(a) 38 ATP (b) 36 ATP
(c) 34 ATP (d) 32 ATP

36) _____ wave in ECG represent atrial depolarization.
(a) P (b) QRS complex
(c) Q (d) T

37) _____ is supported by 'C' shaped rings of cartilage.
(a) Larynx (b) Trachea
(c) Nose (d) Pharynx

38) Neutrophils are stained with _____.
(a) Alkaline dyes (b) Basic dyes
(c) Acidic dyes (d) Neutral dyes

39) _____ show twisted nucleus.
(a) Neutrophils (b) Monocytes
(c) Acidophills (d) Cyanophils

40) The steady rate of respiration is controlled by neurons located in the _____.
(a) Pons
(b) Medulla
(c) Intercostal nerves
(d) Both a and b

41) Carbon dioxide transported by _____.
(a) RBC (b) WBC
(c) Platelet (d) Leucocytes

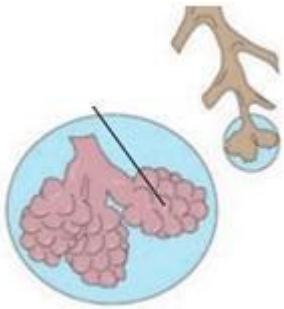
42) _____ fluid is present between the lungs.
(a) Pleural fluid (b) Blood
(c) Interstitial fluid (d) Lymph

43) Oxyhaemoglobin functions as an acid due to the increase in the number of _____.
(a) CO_2 (b) O_2 (c) H_2O (d) H^+

44) Opening of inferior vena cava is guarded by _____.
(a) Bicuspid valve (b) Tricuspid valve
(c) Eustachian valve (d) The besian valve

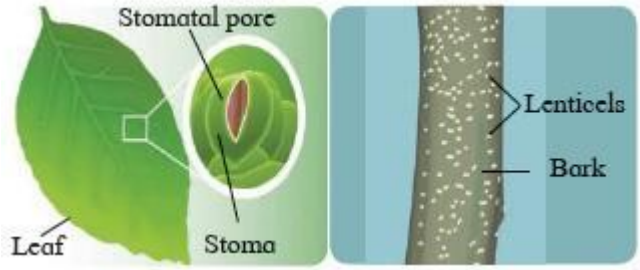
45) Lymphocytes involved in _____.
(a) Humoral immunity
(b) Cell-mediated immunity
(c) Both a and b
(d) Phagocytosis

46) Identify the diagram.



(a) Alveoli (b) Trachea
(c) Bronchi (d) Pharynx

47) The below diagram is used for _____ .



(a) Stomata gaseous exchange
(b) Solid exchange
(c) Water exchange
(d) All of the above

48) Diapedesis can be seen in _____ cell.
(a) RBC (b) WBC
(c) Platelet (d) neuron

49) Movement of cytoplasm in unicellular organisms is called _____.
(a) Diffusion (b) Cyclosis
(c) Circulation (d) Thrombosis

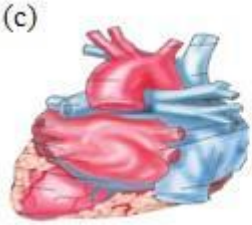
50) _____ muscles contract when the external intercostal muscles contract

(a) Internal abdominal
(b) Jaw
(c) Muscles in bronchial walls
(d) Diaphragm

51) Identify dorsal view of heart

(a) 

(b) 

(c) 

(d) Both a and c

-------- All the Best --------

8. Respiration and Circulation Keys

1) Ans. (c)

2) Ans. (a)

3) Ans. (c)

4) Ans. (b)

5) Ans. (c)

6) Ans. (a)

7) Ans. (b)

8) Ans. (b)

9) Ans. (c)

10) Ans. (c)

11) Ans. (b)

12) Ans. (a)

13) Ans. (a)

14) Ans. (b)

15) Ans. (d)

16) Ans. (b)

17) Ans. (d)

18) Ans. (d)

19) Ans. (a)

20) Ans. (a)

21) Ans. (b)

22) Ans. (d)

23) Ans. (c)

24) Ans. (c)

25) Ans. (d)

26) Ans. (d)

27) Ans. (a)

28) Ans. (c)

29) Ans. (a)

30) Ans. (a)

31) Ans. (d)

32) Ans. (a)

33) Ans. (b)

34) Ans. (c)

35) Ans. (a)

36) Ans. (a)

37) Ans. (b)

38) Ans. (d)

39) Ans. (d)

40) Ans. (d)

41) Ans. (a)

42) Ans. (a)

43) Ans. (d)

44) Ans. (c)

45) Ans. (c)

46) Ans. (a)

47) Ans. (d)

48) Ans. (b)

49) Ans. (b)

50) Ans. (d)

51) Ans. (d)