

SAMAGRA SHIKSHA, KERALA
SECOND TERM EVALUATION 2022-23
BIOLOGY

STD- IX

Time : 1½ hrs.

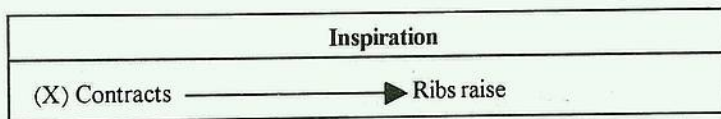
Total Score : 40

Instructions:

- 15 minutes is given as cool off time. This time is to be used for reading the question paper.
- Attempt the questions according to the instructions.
- Keep in mind the score and time while answering the questions.

(Answer any 5 from questions 1-6. One score each.)**(5 x 1 = 5)**

1. Choose the condition in which accumulation of fat occurs in the arterial walls. (1)
 • Emphysema • Atherosclerosis • Bronchitis • Hypertension
2. Choose the correct pair from the following. (1)
 - Pelvis-region where urine from the filters flows into.
 - Afferent vessel-The blood vessel that comes out of Bowmann's capsule.
 - Cortex-The dark coloured inner part of the kidney.
 - Medulla -The light coloured outer part of the kidney.
3. Identify the processes in which carbon dioxide is not formed as a bi-product. (1)
 (Lactic acid fermentation, alcoholic fermentation, krebs cycle, glycolysis)
4. Identify the muscle indicated as X in the illustration (1)

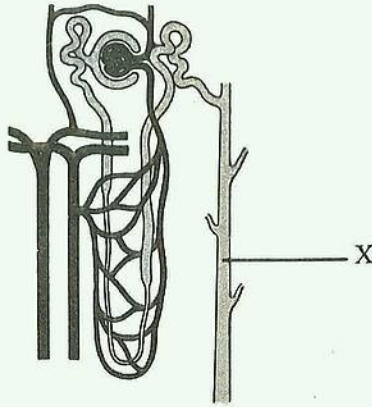


5. Identify the word relation and fill in the blank. (1)

Systolic pressure	: 120mm Hg	
_____	: 80mmHg	

6. Write the function of the part indicated as X in the figure

(1)



(Answer any 6 from questions 7 - 13. 2 scores each).

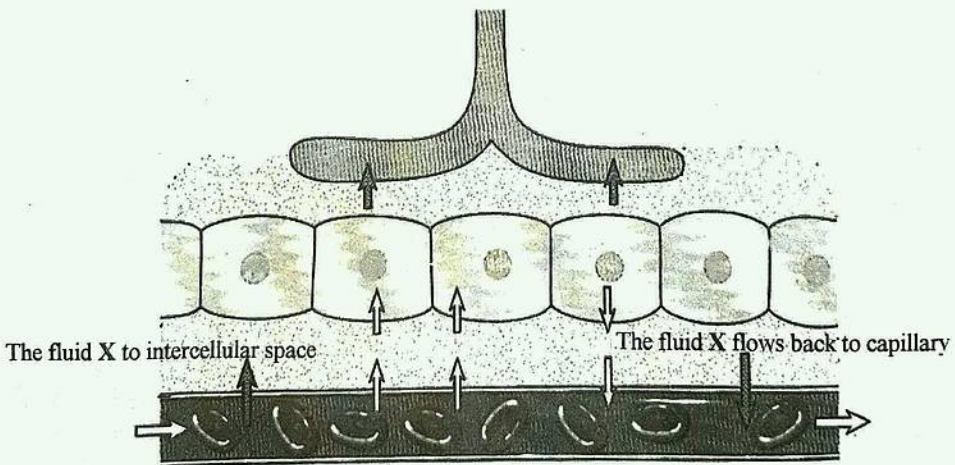
(6 x 2 = 12)

7. Analyse the characteristic feature of lungs given below and answer the questions

"Bronchioles, the terminal branches of bronchi which enter the lungs end in millions of alveoli."

- a) What is the advantage of having this much number of alveoli? (1)
- b) How far is the structure of alveoli suitable for the exchange of respiratory gases? (1)

8. Observe the illustration and answer the questions.



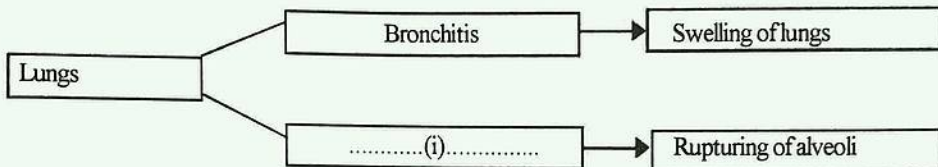
- a) Which fluid is indicated as 'X'? (1)
- b) How does this fluid differ from blood? (1)

9. Analyse the information given in the box and answer the following questions.

Desired rate of blood pressure is 120/80 mm Hg

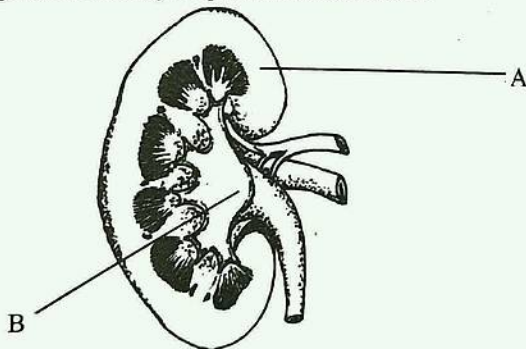
- a) Name the diseased state in which the blood pressure increases above the rate given in the box. (1)
- b) Write the reasons for this. (1)

10. Observe the illustration and answer the questions.

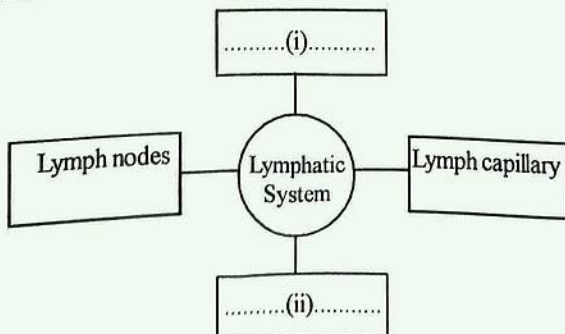


- a) What does (i) indicate? (1)
- b) How does the rupturing of alveoli affect the patient? (1)

11. Redraw the diagram and Identify the parts labelled as A & B. (2)



12. Complete the illustration (2)



13. Analyse the statement and give reason (2)

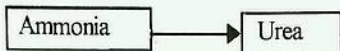
"Avoiding timely urination affect our body"

(Answer any 5 from questions 14-20. 3 scores each) (5 x 3 = 15)

14. Analyse the information related to vascular tissue given below and answer the questions.

- i) The cell walls between these cells disintegrate so they look like long pipes.
- ii) These cells are seen as pipes arranged one above the other and pores are seen in their cross walls.
 - a) Identify the parts of vascular tissue mentioned in statements (i) and (ii). (2)
 - b) Write the function of (ii). (1)

15. Observe the illustration and answer the questions given below



- (a) Where does this process take place? (1)
- (b) How is ammonia formed in the body? (1)
- (c) Write the chemical process of formation of urea from ammonia. (1)

16. Observe the figure of the cell organelle and answer the questions.



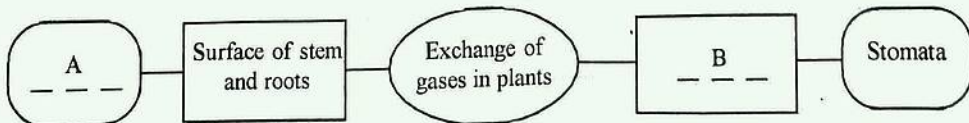
- a) Name the phase of cellular respiration takes place here? (1)
- b) What are the important chemical processes occur during this phase? (2)

17. Analyse the instances given below and answer the questions.

- i) Dough rises, when yeast is added.
- ii) Lactic acid is formed in muscle cells.

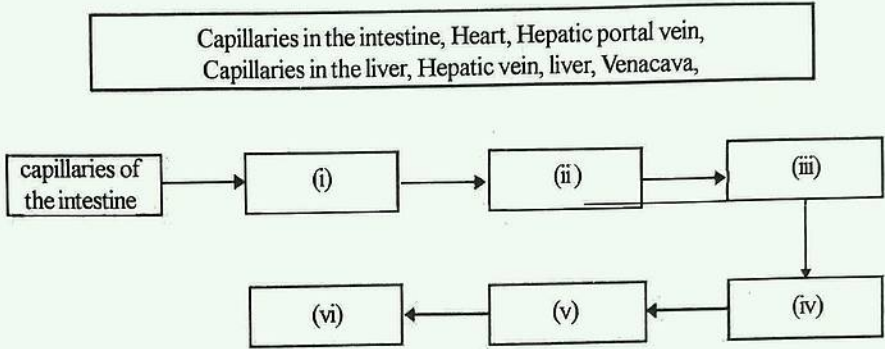
- a) Name the type of respiration takes place during the instances given above. (1)
- b) Name the products formed as a result of respiration in the first instance. (1)
- c) Give reason for the occurrence of this process during the second instance. (1)

18. Analyse the illustration related to the exchange of gases in plants and answer the questions.

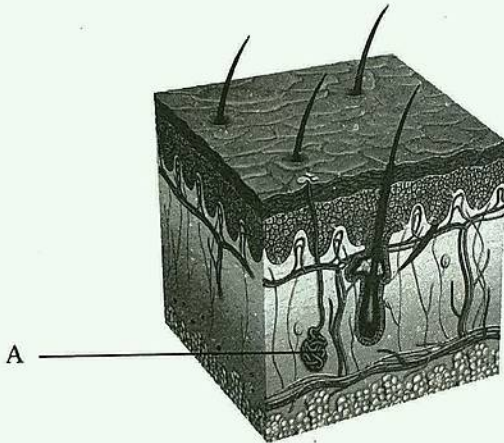


- a) Complete the missing part in the illustration. (1)
- b) Compare the process of energy production in plants and animals and write two similarities. (2)

19. Prepare a flow chart including the information related to portal circulation given in the box.



20. Observe the figure and answer the following questions.



- a) Identify the gland indicated as X in the illustration. (1)
- b) Write the function of this gland. (1)
- c) What are the benefits of this process. (1)

Answer any 2 from questions 21-23. 4 scores each.

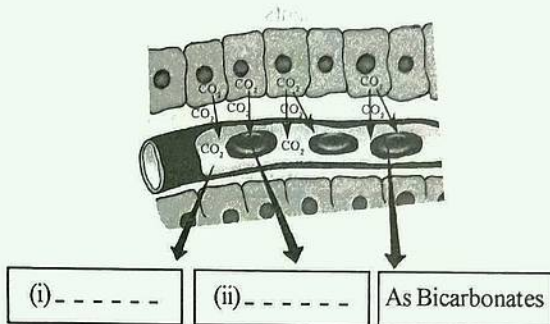
(2 x 4 = 8)

21. Analyse the statement and answer the following questions.

“Water reaches leaves and other plant parts from soil due to the combined action of many processes.”

- (a) Name the processes mentioned in the statement. (2)
- (b) How do these processes help in the transport of water? Explain (2)

22. Analyse the illustration related to the expulsion of Carbon dioxide and answer the questions. (4)



- a) Fill (i) and (ii). (1)
- b) Explain the process (ii) and (iii). (2)
- c) What will happen to the body if the expulsion of Carbon dioxide does not take place? (1)
23. Components of a fluid collected in the capsular space of Bowmann's Capsule are given in the box. Analyse them and answer the following questions.

- water
- Glucose
- Amino acids
- sodium, potassium, calcium ions, vitamins
- urea, uric acid, creatinine etc

- a) Identify the fluid. How is it formed? (2)
- b) Choose the components which are not present in urine. (1)
- c) What is the reason for the absence of these components in urine? (1)