



SAMAGRA SHIKSHA, KERALA
Annual Evaluation 2018-19

E 906 Bio

BIOLOGY

Std. : IX

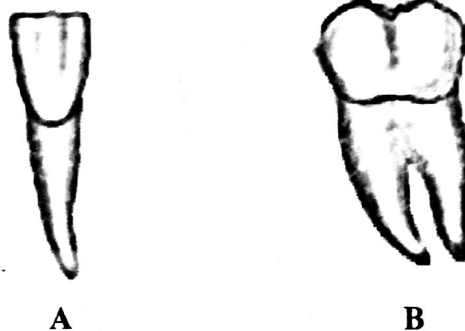
Time : 1½ Hours
Score : 40

Instructions :

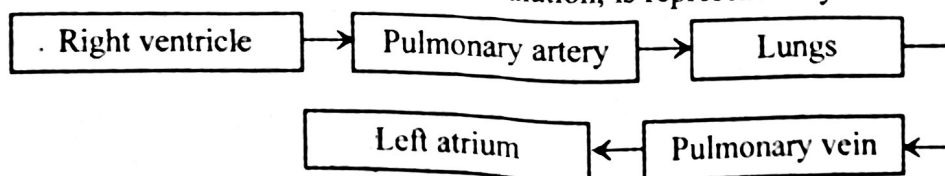
1. First 15 minutes is given as cool off time. This time is to be used for reading and understanding the questions.
2. Answer the questions based on instructions.
3. Answer the questions according to the score and time.

Answer any 5 from questions from 1 to 6. Each question carries 1 score. (5 x 1 = 5)

1. Observe the figure, identify and write the name of teeth indicated as A and B.



2. Correct mistakes if any, in the underlined part of the given statements.
 - a) Salivary amylase converts starch into maltose partially.
 - b) Pepsin converts proteins into peptides.
 - c) Pancreatic lipase converts fat into fatty acid and glycerol.
 - d) Peptidase converts peptides into amino acids.
3. Write which circulation, in double circulation, is represented by the illustration.



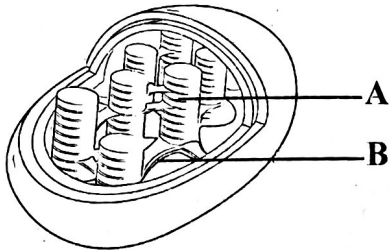
4. Select those seen only in xylem from the box.

Companion cell, Tracheid, Sieve tube, Vessel

5. Which is the odd one among the following ? Write the common features of others?
 a) Skull b) Vertebral column c) Pectoral girdle d) Sternum
6. Analyse the following statements and write the correct answer.
- Parent cell divides and two daughter cells are formed in mitosis.
 - Mitosis takes place in somatic cells.
 - Parent cell divides and forms two daughter cells in meiosis.
 - Meiosis takes place in germinal cells.
- i, ii, iii, iv correct
 - i, ii, iii correct
 - ii, iii, iv correct
 - i, ii, iv correct

II: Answer any 6 questions from 7 - 13. Each question carries 2 score. (6 x 2=12)

7. Observe the figure and answer the questions.



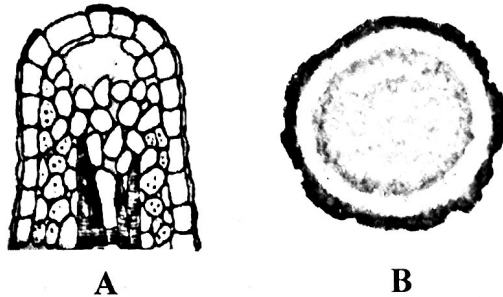
- Which is the cell organelle ?
- Identify and write the parts A and B.

8. 'Cytokinesis differs in plant and animal cells'. Is the statement correct. Why ?
9. Symptoms of a kidney patient are given below. Analyse them and answer the questions.
- Turbid urine
 - Back pain and fever
 - Oedema in face and ankles of foot
- Identify the disease.
 - What is the cause of this disease ?
10. Due to continuous and strenuous work the muscles of a person became exhausted and temporarily lost the ability to contract.
- What is the name for this condition ?
 - How this condition is solved on taking rest ?
11. Certain movements in touch-me-not plant is given below. Analyse them and answer the questions.
- The roots grow towards water.
 - The stem grows towards sunlight.
 - When we touch, leaves fold.
- Which type of movement is mentioned in A and B?
 - Is the movement indicated in C different from this? Why ?

12. How does regular exercise become advantageous to the following systems.
- Circulatory system
 - Muscular system
13. Analyse the statement and answer the question.
 ‘The combined working of intercostal muscles and the diaphragm help in increasing and decreasing the volume of the thoracic cavity’.
- How does the increase and decrease in the volume of thoracic cavity help the process of breathing ?

Answer any 5 questions from 14 to 20. Each question carries 3 score. (5 x 3 = 15)

14. The sperms formed from a male germinal cell and the ovum formed from a female germinal cell differ in their numbers. Why ?
15. Observe the figure related to excretion in plants and answer the questions.



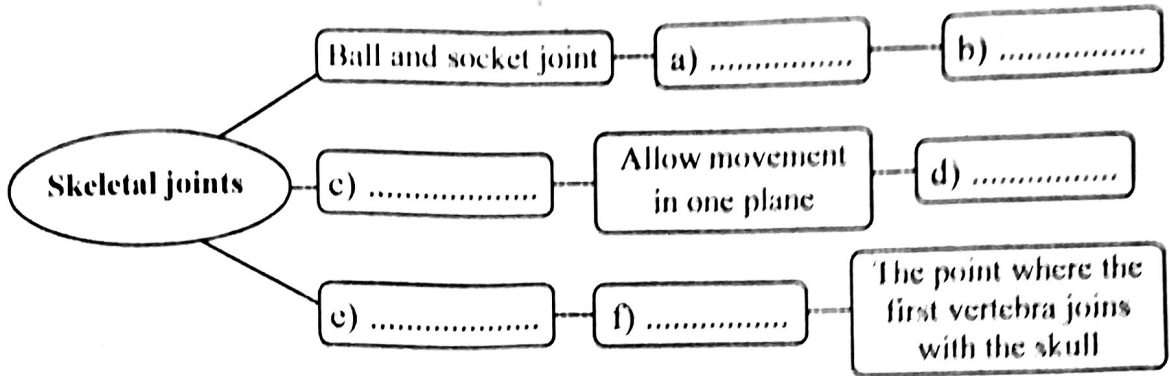
- Identify A and B.
- How A and B help in excretion ?
- Write any other two excretory mechanisms in plants.

16. Rearrange the column B and C so as to match with column A.

A	B	C
Striated muscle	Spindle shaped cells	Seen on the walls of the heart
Smooth muscle	Branched cells	Seen attached to skeletons
Cardiac muscle	Cylindrical shaped cells	Seen in internal organs like stomach and small intestine.

17. Arrange the flow chart related to muscle contraction suitably.
- Myosin bind with actin
 - Impulse for contraction of muscles through the nerves.
 - Myosin pulls actin filaments closer.
 - Calcium ions are activated
 - Muscle contracts
 - Energy is released from ATP

18. Complete the illustration suitably.



19. Write reasons for the given statements.

- a) Meiosis takes place in germinal cells only.
- b) Arecanut tree does not increase in girth like a jack-tree.
- c) Plant growth is localised in certain parts only.

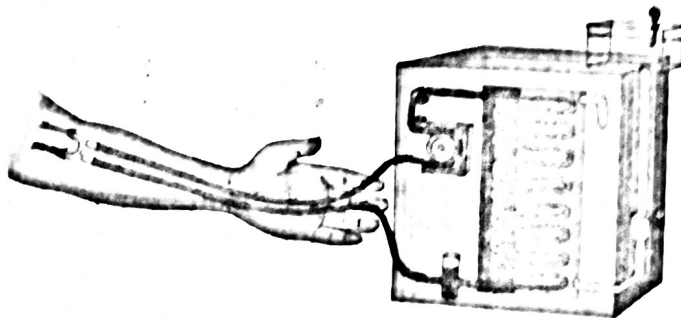
20. Analyse the given terms related to human respiratory system and answer the questions.

- A) Tidal volume
- B) Vital capacity
- C) Emphysema

- i) Which is an indicator of the strength of the muscles in the thoracic cavity ?
- ii) How does A and B differ each other ?
- iii) How is B and C related ?

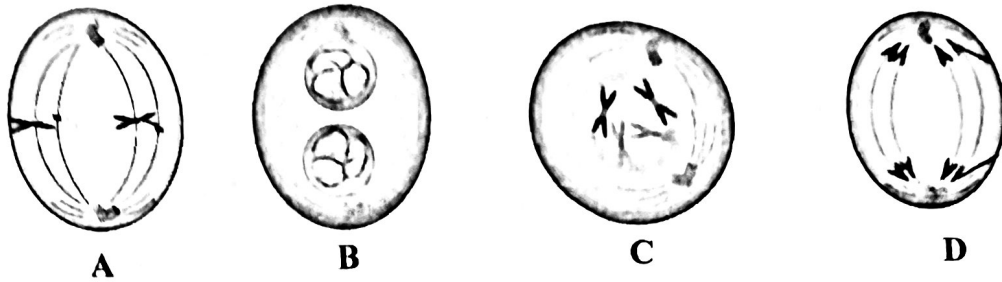
Answer any 2 questions from 21 to 23. Each question carries 4 score. (2 x 4 = 8)

21. Observe the figure and answer the questions.



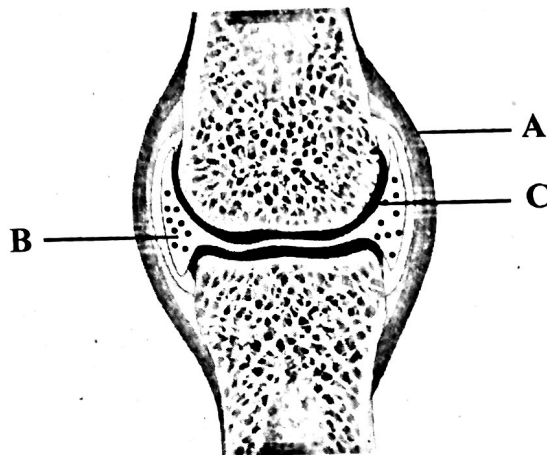
- i) Which is the method of treatment indicated in the figure ?
- ii) When is this treatment needed?
- iii) Write the stages of this treatment in correct order.

22. The phases of karyokinesis in mitosis are given below. Observe them and answer the questions.



- i) Identify and name each phase.
- ii) Among these, find the stages in which the following are formed.
 - a) Daughter chromosomes
 - b) Daughter nuclei
- iii) Write down the changes that occur during the phases in which a and b are formed.

23. Redraw the diagram and answer the questions.



- i) Identify and label parts A, B, C.
- ii) Write one function of each part.