

Class : IX

Biology

Time : 1½ Hours
Score : 40

Instruction

- First 15 minutes is given as cool off time. You may use the time to read the questions and plan your answers.
- Read the questions carefully and answer the questions.
- Keep in mind the score and time while answering the questions.

Answer any 5 questions from Q.No. 1 to 6. Each carries one score.

(5x1=5)

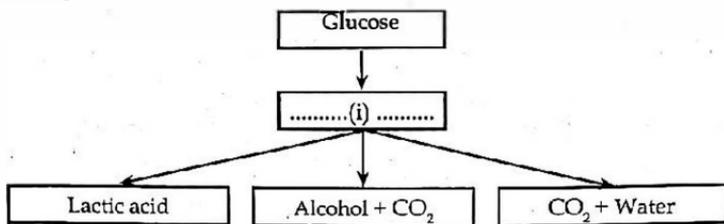
1. Understand the relationship in A and complete B. (1)
 - A) Nails on digits, lactate : Mammalia
 - B) Nails on digits, scales on the body :
2. Choose the correct one related to the processes that help in exchange of materials. (1)
 - i) Applicable to water only
 - ii) Energy required
 - iii) From a region of higher to lower concentration
 - iv) Carrier protein required
 - a) i and ii - Osmosis, iii and iv - Facilitated diffusion
 - b) i and ii - Diffusion, iii and iv - Osmosis
 - c) i and iii - Osmosis, ii and iv - Active transport
 - d) i and iii - Active transport, ii and iv - Osmosis
3. Choose the parts associated with digestion of fat from those given below. (1)
 - a) Mouth, Stomach, Small intestine, Large intestine
 - b) Stomach, Pancreas, Liver, Small intestine
 - c) Mouth, Stomach, Pancreas, Liver
 - d) Oesophagus, Stomach, Large intestine, Liver
4. Analyse the statement and reason and choose the correct answer. (1)

Statement: Muscular dystrophy is the condition in which muscles get damaged and become weak.

Reason : The change that occurs in the genes.

 - a) Statement correct, reason wrong.
 - b) Statement wrong, reason correct.
 - c) Statement and reason correct.
 - d) Statement and reason wrong.

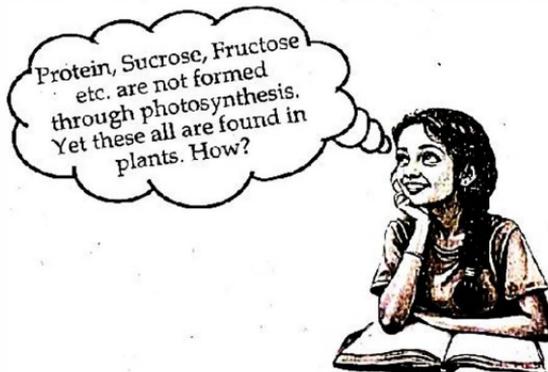
5. Which of the following phase marks the beginning of pregnancy? (1)
- Since the formation of zygote
 - Since the blastocyst attaches to the inner lining of the uterus
 - After fertilisation
 - Since the formation of morula
6. Processes of respiration including the missing part in the illustration is given below. Choose the correct and the most energy releasing respiratory process from the following. (1)



- Glucose \rightarrow Hydrochloric acid \rightarrow Lactic acid
- Glucose \rightarrow Pyruvic acid \rightarrow Alcohol + CO₂
- Glucose \rightarrow Hydrochloric acid \rightarrow CO₂ + Water
- Glucose \rightarrow Pyruvic acid \rightarrow CO₂ + Water

Answer any 6 questions from Q. No. 7 to 13. Each carries 2 scores. (6x2=12)

7. Analyse the hints and answer the questions. (1)
- Mainly transmitted through sexual contact.
 - Gonorrhoea and Syphilis are examples.
- What category do these diseases belong to? (1)
 - Write two ways to prevent these diseases. (1)
8. Analyse the child's doubt and write a response. (2)



9. Analyse the following statements and give reason.

a) Pinna and tip of the nose are flexible. (1)

b) Exposure to gently sunlight is good for the health of bone. (1)

10. Analyse the picture and answer the questions.



a) The phylum to which the organisms in the picture belong? (1)

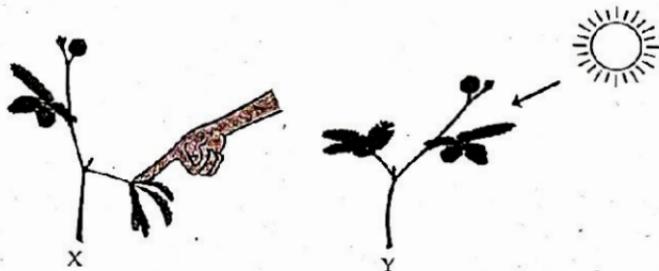
b) What is the main feature considered for including these organisms in this phylum. (1)

11. Match the information given in the box according to the model. (2)

Bryophyta, Algae, Vascular tissues are absent, Seeds are not embedded in fruits, Pteridophyta, Vascular tissues with simple structure, Gymnosperms, The body called as Thallus

Model: Angiosperms - Reproductive parts are present in the flowers.

12. Analyse the picture and answer the questions.



a) Name the plant movements indicated in 'X' and 'Y'. (1)

b) What is the difference between these two movements? (1)

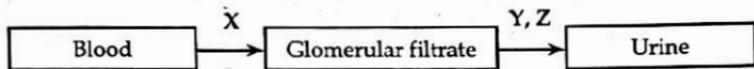
13. Write four concepts that would be suitable to include in a seminar on the topic "Gender Justice and Modern Society". (2)

Answer any five questions from Q.No. 14 to 20. Each carries 3 scores. (5x3=15)

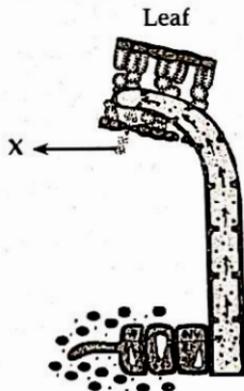
14. Analyse the situation given below and answer the questions.

A couple is unable to conceive naturally, even after one year has passed since they decided to conceive.

- What is this condition called? (1)
 - Write two reasons that lead to this condition in males. (1)
 - Write two treatment methods to solve this problem. (1)
15. Different stages in the formation of urine are indicated in the illustration as 'X', 'Y' and 'Z' respectively. Analyse the illustration and answer the questions.

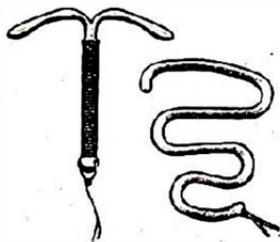


- Identify the processes indicated as 'X' and 'Z'. (1)
 - How is the high pressure required for the process 'X' is created? (1)
 - Would there be a difference in the components of urine if process 'Y' does not take place? Why? (1)
16. Observe the figure showing the conduction of water in plants and answer the questions.



- Identify the process indicated as 'X'. (1)
- What are the reasons for the upward movement of water in the xylem tubes of root and stem? (2)

17. Analyse the picture and answer the questions.



- a) Identify the contraceptive method indicated in the picture. (1)
- b) Write any two methods of permanent contraception and how does each of them enable contraception? (2)
18. Arrange column B and C according to column A. (3)

A. Characteristics	B. Phylum	C. Organisms
Minute pores throughout the body	Arthropoda	Planaria
Marine organisms with spiny body	Echinodermata	Cockroach
Jointed legs	Platyhelminthes	Sponges
	Porifera	Starfish

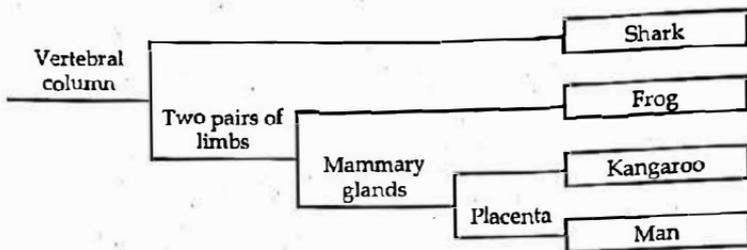
19. The hints that substantiate the message on the placard is given below. Explain the importance of breast milk based on them. (3)



Hints:

- a) Colostrum
- b) Antibody
- c) Nutrients

20. Analyse the evolutionary tree and answer the questions

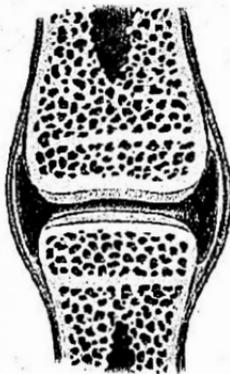


- Which organism shares least characteristics? (1)
- The characteristics which is common to all organisms. (1)
- What is the distinct characteristic that differentiates kangaroo from man. (1)

Answer any 2 questions from Q.No 21 to 23. Each carries 4 score.

(2x4=8)

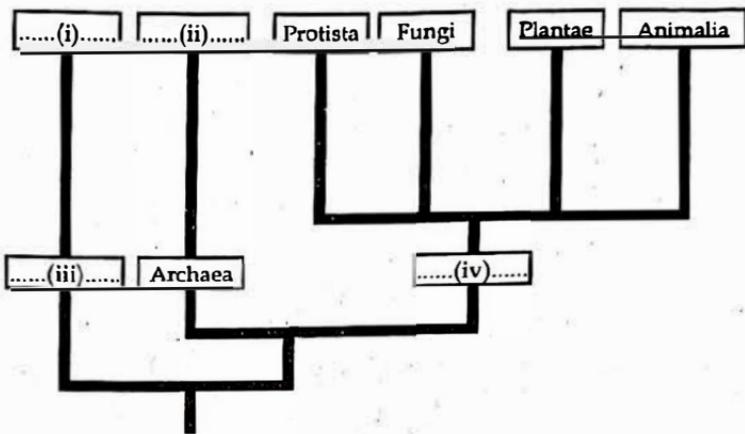
21. Redraw the figure, identify and label the parts.



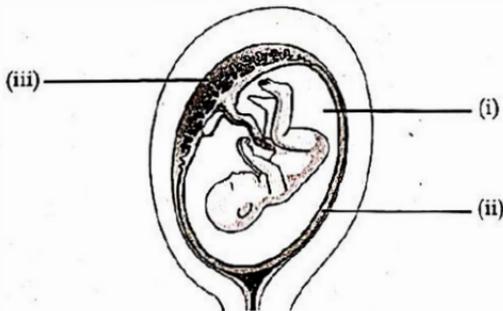
For redrawing

- The fluid present between the bones (1)
- The part that covers the tip of the bones (1)
- The part that connects two bones (1)

22. Observe the illustration regarding six kingdom classification and answer the questions.



- a) Fill in (i),(ii),(iii) and (iv). (2)
- b) Write the characteristics of the kingdom indicated as (i). (1)
- c) Why viruses are not included in this classification also? (1)
23. Observe the figure and answer the questions.



- a) Identify the parts labelled as (ii) and (iii). (1)
- b) How is the part labelled as (iii) formed? (1)
- c) What is the function of the fluid labelled as (i)? (1)
- d) Which part helps to remove waste from the body of a foetus?
Write another function of this part? (1)