Science

Reg.No. : ☐☐☐☐☐☐

I.Answer all the questions.
II.Use Blue pen only.
III.Question No 14 is compulsory.

Time : 01:00:00 Hrs   Total Marks : 30

Section-A

5 x 1 = 5

1) Select important characteristic features of mammals

    (a) four-chambered heart   (b) fore-limbs and hind limbs   (c) milk-producing glands   (d) post anal tail

2) Carnivorous animals use these teeth to tear flesh.

    (a) incisors   (b) canines   (c) premolars   (d) molars

3) The Henle's loop of nephron is mainly responsible for reabsorption of water in the kidney. Which of the following has a long loop of Henle in its nephrons to conserve water?

    (a) polar bear   (b) camel   (c) frog   (d) whale

4) Which blood cells of mammals are concerned with immunity?

    (a) Young Erythrocytes   (b) Leucocytes   (c) Thrombocytes   (d) Matured Erythrocytes

5) You were given two unlabelled slides with blood smears of an amphibian and a mammal.You would differentiate the blood samples by observing the _____.

    (a) colour   (b) nature of RBC's   (c) nature of WBC's   (d) contents of plasma
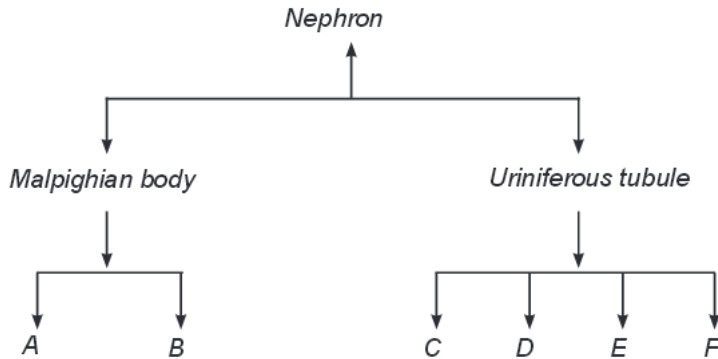
Section-B

8 x 2 = 16

6) Mention the two unique characteristics of mammals.

7) Give two examples each: (i) ruminating mammals (ii) marine mammals.

8) What type of dentition is seen in mammals? What are elephant tusks?

9) Mention any four adaptations seen in the camel so that it can live successfully in deserts.

10) What is echo location? Give an example.

11) Mention the various valves and their location in the human heart.

12) Write any four differences between arteries and veins in mammals.

13) Name the three important blood proteins seen in plasma. Add a note on their functions.

Section-C

2 x 5 = 10

14) a)   Observe the chart depicting the structure of a nephron.

    i) Mention the structures A to F ii) Explain the main function of a nephron.

(OR)

b)   With a suitable diagram, describe the structure and functions of the human heart.

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