

Time: 02Hrs 00Min

Marks: 60

Please check whether you have received the right question paper.

N.B: 1. All questions are compulsory.

2. Figures to the right indicate full marks.

3. Draw neat and labelled diagrams wherever necessary.

4. Answer the questions in proper order.

**Q. 1 Describe the following:**

a) Adaptation in camel. (08)

**OR**

a) Migration: advantages and disadvantages (08)

b) Pearl formation. (08)

**OR**

b) Types of adaptive features of desert animals. (08)

**Q. 2 Explain the following:**

a) Ex-vivo gene therapy (08)

**OR**

a) Animal husbandry (08)

b) In-vivo gene therapy (08)

**OR**

b) Technique of DNA fingerprinting (08)

**Q. 3 Answer the following:**

a) Principle and application of colorimetry (08)

**OR**

a) Compound microscope (08)

b) Partition chromatography and paper chromatography (08)

**OR**

b) Principle and application of spectrophotometry (08)

**P.T.O.**

**Q. 4 Answer the following:**

**(04)**

**A] Fill in the blanks :**

- a) \_\_\_\_\_ reef is more or less circular or horse-shoe shaped reef.
- b) \_\_\_\_\_ is the mimic of common crow.
- c) Fullform of FDA is \_\_\_\_\_
- d) At 400nm colour absorbed by matter is \_\_\_\_\_

**B] True or False :**

**(04)**

- a) Power of regeneration decreases as complexity of animals increases.
- b) Common palmfly is a mimic of Striped tiger.
- c) DNA fingerprinting is based on the use of minisatellite
- d) Whatman filter paper is used in Adsorption chromatography

**C] Match the following :**

**(04)**

- |                  |                                 |
|------------------|---------------------------------|
| a) Firefly.      | 1. Lays eggs on back and thigh. |
| b) Midwife toad. | 2. Family: Lampyridae           |
| c) Insulin       | 3. Sorenson                     |
| d) pH            | 4. rDNA technology              |

\*\*\*\*\*