Total Pages : 3

Roll No.

MSCZO-602

Developmental Biology

M.Sc. Zoology (MSCZO)

3rd Semester Examination, 2023 (June)

Time : 2 Hours]

Max. Marks : 70

Note : This paper is of Seventy (70) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION-A

(Long Answer Type Questions)

Note : Section 'A' contains Five (05) long answer type questions of Nineteen (19) marks each. Learners are required to answer any Two (02) questions only.

(2×19=38)

1. What is Oogenesis ? Describe the process in details.

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- **2.** What is Spermatogenesis? Describe in detail and add a note on its significance.
- **3.** Describe the various types of eggs found in vertebrates. Name the animals to which it belongs. State the methods of segmentations in each case.
- **4.** What do you understand by metamorphosis? Explain with reference to the life history of frog.
- **5.** Give a brief account of various types of morphogenetic movement met within animal groups.

SECTION-B

(Short Answer Type Questions)

- **Note :** Section 'B' contains Eight (08) short answer type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only. (4×8=32)
- **1.** Define spermatogenesis and its significance.
- **2.** Define fertilization. How does penetration of sperm into ovum takes place.
- **3.** Discus the process of induction during Eye formations.

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- **4.** Write a brief account of heteromorphic regenerations and super regenerations.
- 5. What is emboly? How does it differ from epiboly.
- **6.** Describe the tadpole larva of frog and its metamorphosis into young frog.
- 7. Write an essay on Hormonal control of Metamorphosis.
- **8.** Discuss the mechanism of genetic and environmental teratogenesis.