

Code No. : B/2019

Second Semester Examination, May 2017

M.Sc. ZOOLOGY

Paper - II

REPRODUCTIVE BIOLOGY

Time : 3 Hrs.

Max.Marks : 80

Note :Section 'A', consists of 10 very short answer type questions, all of which are compulsory and should be attempted first. Section 'B' consists of four short answer type questions with internal options. Section 'C' consists of four long answer type questions with internal choice.

**Section-'A'**

**Answer the following very short-answer-type questions in one or two sentences. (2x10=20)**

- Q-1. Name the hormones that regulate spermatogenesis.
- Q-2. What is the origin and function of Acrosome?
- Q-3. Name the types of Eggs according to the quantity of yolk.
- Q-4. What is the function and fate of corpus luteum?
- Q-5. What is the function of cortical granules?
- Q-6. What is the role of pheromone in reproduction?
- Q-7. Name the types of placenta found in Cow and Man.
- Q-8. Write two functions of allantois.
- Q-9. Write the two types of morphogenetic movements during gastrulation.
- Q-10. Write one example each of organisms showing progressive and retrogressive metamorphosis.

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**Section-'B'**

**Answer the following short-answer-type questions with word limit 200-250. (5x4=20)**

Q-1. Write about the mechanism of spermiogenesis.

**OR**

Write about the morphology and function of Leydig cells and sertoli cells.

Q-2. Draw well labelled diagram of TS of ovary.

**OR**

What are various types of Eggs in vertebrates?

Q-3. What are main characteristics of pre and post fertilization events.

**OR**

Write about the significance of Biochemical reactions during fertilization.

Q-4. What do you know about fate maps? Explain with diagram and examples.

**OR**

Write about the structure and function of Amnion and Chorion.

**Section-'C'**

**Answer the following long-answer-type questions with word limit 400-450. (10x4=40)**

Q-1. Give a detailed account of structure and function of testis, semen and sperm.

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**OR**

Describe about the role of secondary sex organs, accessory glands and psychological conditions for the success of reproduction in male.

Q-2. Write an essay on ovary and oogenesis.

**OR**

Write about the anatomical and behavioural changes during Menarchy and Menopauze.

Q-3. Write about the types, mechanism and significance of fertilization.

**OR**

Give a detailed account of origin, location, biochemistry and metabolism of yolk in vertebrates.

Q-4. Discuss about Placenta and Placentation in Mammalian Embryology.

**OR**

What do you mean by Direct and Indirect development? Give a detailed account of metamorphosis and tailless Amphibians.

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