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BSCZOC 381

**Choice Based Credit System Sixth Semester B.Sc. Degree
Examination, September 2022
(Semester Scheme) (2021-22 Batch Onwards)
ZOOLOGY – VII
Reproductive Biology and Developmental Biology**

Time : 3 Hours

Max. Marks : 80

Instruction : Draw diagrams ***wherever*** necessary.

PART – A

I. Answer **any ten** questions.

(10×2=20)

- a) Name any two accessory male reproductive glands.
- b) Define spermiogenesis.
- c) Expand ZIFT and GIFT.
- d) What is ovoviviparity ? Give an example.
- e) Define capacitation.
- f) Name any two types of blastula.
- g) What is embryonic induction ?
- h) What is notogenesis ?
- i) Name two nutritive substances in hen's egg.
- j) Name any two types of placenta based on distribution of villi.
- k) Write the functions of amnion.
- l) Name any two hormones secreted by ovary.

PART – B

Unit – I

II. Answer **any two** questions.

(4×2=8)

- a) Write a note on secondary sexual characters in Humans.
- b) Write a note on menstrual cycle in human.
- c) Briefly explain previtellogenesis.

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III. Answer **any one** question. (7×1=7)

- a) Define parthenogenesis. Explain diploid parthenogenesis with suitable examples.
- b) Briefly explain :
 - i) IVF and ET
 - ii) Superovulation.

Unit – II

IV. Answer **any two** questions. (4×2=8)

- a) Explain the types of eggs based on the amount of yolk.
- b) Write a note on acrosome reaction and sperm penetration.
- c) Define kinds of fertilization with suitable examples.

V. Answer **any one** question. (7×1=7)

- a) Explain patterns of cleavage with suitable illustrations.
- b) Write a note on theories of development.

Unit – III

VI. Answer **any two** questions. (4×2=8)

- a) Briefly explain experiment of Spemann and Mangold.
- b) Write a note on cleavage in frog.
- c) Explain Brachet's experiment.

VII. Answer **any one** question. (7×1=7)

- a) Explain the fate map of frog with a neat labelled diagram.
- b) Write a neat labelled diagram of hen's egg and explain.

Unit – IV

VIII. Answer **any two** questions. (4×2=8)

- a) Explain the structure of human blastocyst.
- b) Briefly explain development, structure and functions of allantois.
- c) Write a note on hormones of placenta and their functions.

IX. Answer **any one** question. (7×1=7)

- a) Briefly explain histological classification of placenta with examples.
 - b) Write a neat labelled diagram of mature sperm and explain.
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