

M.Sc.(Zoology) (CBCS Pattern) Semester - I
PSCZOOT04 - Advanced Reproductive Biology-IV

P. Pages : 1

Time : Three Hours



GUG/S/23/11178

Max. Marks : 80

- Notes :
1. All questions are compulsory.
 2. All questions carry equal marks.
 3. Illustrate your answers with suitable diagram.

1. Describe the mechanism of vitellogenesis in Insects. **16**

OR

Write notes on: -

- a) Partial and complete Metamorphosis. **8**
- b) various methods of asexual reproduction in protozoa. **8**

2. Describe in detail the cytological and molecular events of fertilization. **16**

OR

Write notes on:

- a) Structure of spermatozoa of man. **8**
- b) Types of cleavage. **8**

3. Write an account on pheromones and sexual behaviour in mammals. **16**

OR

Write notes on:

- a) Biochemical composition of semen. **8**
- b) Sperm capacitation. **8**

4. Describe in detail the process of In-Vitro Fertilization (IVF) and add a note on its significance. **16**

OR

Write notes on: -

- a) Cryopreservation of gametes. **8**
- b) Organizer concept. **8**

5. Attempt the following- **16**

- a) Nymph
- b) Embryonic induction.
- c) Male accessory sex glands.
- d) Morphogenetic gradients.
