

M.Sc. S.Y. (Zoology) (CBCS Pattern) Fourth Semester CBCS
ZOOXV / PSCZOOT15.4 - Special Group - Animal Physiology-IV
(Physiology of Respiration and Reproduction)

P. Pages : 1

Time : Three Hours



GUG/W/18/11442

Max. Marks : 80

- Notes :
1. All questions are compulsory.
 2. All questions carry equal marks.
 3. Draw well labelled diagram wherever necessary.

1. Draw the neat labeled diagram of the respiratory tract and describe the structure of the lungs. **16**

OR

Write notes on:

- a) Describe the mechanism of exchange of respiratory gases at pulmonary surface.
- b) How CO₂ and O₂ are transported in the blood?

2. Write an essay on chemical regulation of respiration. **16**

OR

Write notes on:

- a) Describe in detail the oxygen-hemoglobin dissociation curve.
- b) What is hypoxia and comment on types and causing mechanisms of hypoxia.

3. Write an essay on endocrine control of spermatogenesis. **16**

OR

Write notes on:

- a) Describe the structure and process of corpus-luteum formation.
- b) Graafian follicle.

4. Describe the process of placenta formation and comment on structure and functions of placenta. **16**

OR

Write notes on:

- a) Comment on hormonal influence on process of lactation.
- b) Describe the sequence of events involved in In vitro fertilization (IVF) Process.

5. Attempt the following. **16**

- a) Tidal volume and vital capacity.
- b) Chloride shift.
- c) Leydigs cells.
- d) Estrogen..
