

SET C



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Reproductive Biology

This Question paper contains three printed pages

Roll No.: _____

Serial No. of Question paper: 1636

Unique Paper Code : 32237910

Name of the course : B.Sc. (Prog) Life Science

Name/title of the Paper : Reproductive Biology- LOCF

Semester : V

Duration: 3 hours

Maximum marks: 75

Instructions to candidates:

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt five questions in all, including question No. 1 which is compulsory.

Q1. (a) Define the following terms:

(5)

- (i) Spermatogenesis
- (ii) Menopause
- (iii) Implantation
- (iv) Azoospermia
- (v) Hysterectomy

(b) Differentiate between the following pairs of terms (any three):

(6)

- (i) Steroid hormones and glycoprotein hormones
- (ii) Primary follicle and secondary follicle
- (iii) Primary and secondary infertility
- (iv) Spermiogenesis and spermiation

(c) Fill in the blanks:

(6)

- (i) _____ is the enzyme that converts testosterone to estrogen.
- (ii) Based on the histology, the type of placenta found in humans is _____.
- (iii) The testicular cell that produces androgen is _____.

- (iv) _____ is the hormone causing the release of milk during lactation.
(v) The hypothalamic hormone _____ causes the release of gonadotropins from the pituitary.
(vi) Sperm maturation occurs in _____.

(d) Write the location and one function of each of the following:

(5)

- (i) Sertoli cell
- (ii) Corpus luteum
- (iii) Montgomery's gland
- (iv) Endometrium
- (v) Seminal vesicle

(e) Expand the following terms:

(5)

- (i) ABP
- (ii) GPCR
- (iii) FSH
- (iv) PROST
- (v) 17β -HSD

- Q2. (a) Define infertility and describe the major causes of infertility in males.
(b) Describe various types of barrier methods of contraception.

(6+6)

Q3. Discuss the hormonal, ovarian, and uterine changes during menstrual cycle in females.

(12)

Q4. What is foeto-placental unit? Explain the importance of the foeto-placental unit during gestation.

(12)

- Q5. (a) Discuss the two-cell hypothesis of estrogen biosynthesis and with the help of a flowchart, explain the process of estrogen biosynthesis.
(b) Draw a well-labeled diagram of transverse section (T.S.) of the testis.

(8+4)

Q6. Write short notes on **any three** of the following:

(3×4)

- (a) Prostate gland
- (b) Hormonal regulation of spermatogenesis
- (c) IUCD
- (d) Role of prostaglandin in parturition
- (e) Ferguson's reflex