

25/05/2022 (M)

[This question paper contains 4 printed pages.]

Your Roll No. ....

25 MAY 2022



**Sr. No. of Question Paper : 1328**

Unique Paper Code : 32237910

Name of the Paper : Reproductive Biology (DSE)

Name of the Course : **B.Sc. (Hons.) Zoology**

Semester : VI (LOCF)

Duration : 3 Hours

Maximum Marks : 75

**Instructions for Candidates**

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

1. (a) Differentiate between the following (**any five**) :  
(2×5=10)

- (i) Theca externa and Theca interna
- (ii) Vasectomy and Tubectomy
- (iii) Luteotrophic factors and luteolytic factors

P.T.O.

(iv) Gonadotropin receptors and steroid receptors

(v) ART and contraception

(vi) Caput and Cauda Epididymis

(b) Define the following (**any eight**): (1.5×8=12)

(i) Second messenger

(ii) Ectopic pregnancy

(iii) Spermiation

(iv) Diapause

(v) Cortical reaction

(vi) Oligospermia

(vii) Superovulation

(viii) Puberty

(ix) Braxton-Hicks contractions

(x) Infertility

(c) Match the following: (1×5=5)

(i) hCG

(a) Aromatase activity

(ii) PRL

(b) Milk production

(iii) Oxytocin

(c) Pregnancy detection hormone

(iv) FSH

(d) Uterine contraction

(v) Progesterone

(e) Pregnancy maintenance

2. (a) Describe the various hormones secreted by the placenta and their role in maintaining gestation. (12)

3. (a) What is meant by 'gestational adaptations'? Discuss any four adaptations. (6)

(b) Describe the hormonal regulation of folliculogenesis in mammals. (6)

4. (a) What is contraception? Discuss any four types of contraceptive methods. (9)

(b) Discuss the role of decidua in implantation. (3)

5. (a) With the help of well-labelled diagram describe the process of spermiogenesis. Compare the role of Leydig cells and Sertoli cells in spermatogenesis. (6+6=12)
6. (a) How does fetal endocrine system control parturition? (3)
- (b) With the help of diagrams, explain the development of mammary glands. Give hormonal control of milk production (9)
7. Write short notes (**any three**) : (4×3=12)
- (a) Mode of steroid action
- (b) Foeto-placental unit
- (c) Estrous cycle
- (d) Types of implantation
- (e) Sperm transport in male genital tract