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Your Roll No.

1352

B.Sc. (Hons.)/III A

ZOOLOGY—Paper X (B)

(Reproductive Biology and Human Behaviour)

(Admissions of 2004 and onwards)

Time : 3 Hours

Maximum Marks : 55

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt five questions in all, including

Question No. 1, which is compulsory.

1. (a) Define :

- (i) Anestrus
- (ii) Prostaglandins
- (iii) Sperm banks
- (iv) Atresia.

- (b) Differentiate between the following terms :
- (i) Hysterectomy and vasectomy
 - (ii) Orchitis and cryptorchidism
 - (iii) HCG and PMSG. 6
- (c) Draw neatly labelled diagrams of :
- (i) L.S. Graffian follicle
 - (ii) T.S. Seminal Vesicle. 4
- (d) Give the full forms of the following abbreviations :
- (i) EFT
 - (ii) PROST
 - (iii) ICSH. 3
2. (a) Describe the histology of human testis and the function of its cellular component.
- (b) Add a note on their hormonal regulation. 6,3

3. (a) Give an account of the embryonic development and differentiation of the female gonad in human.
- (b) Discuss the role of intrinsic factors in the differentiation of human reproductive tract. 5,4
4. (a) Give an account of the biochemical constituents of semen and mention the function of each of them.
- (b) Describe the process of collection and preservation of semen in cattle. 5,4
5. (a) Elaborate the changes in the mammary glands during puberty and pregnancy in the human female.
- (b) Highlight the role of hormones in these changes.
- (c) What is Fergusson's index ? 4,3,2
6. (a) Give an account of the chemical methods of female contraception.
- (b) What is the pearl index and how does it help to evaluate a contraception ? 6,3

7. Write short notes on any *three* :

- (i) Assisted Reproductive technology.
- (ii) Hypothalamo-hypophyseal-ovarian axis in regulation of menstrual cycle.
- (iii) Delayed implantation.
- (iv) Cycle and wave of seminiferous epithelium. 3,3,3