



PERIODIC TEST -1 (APRIL, 2023)

SUBJECT- BIOLOGY

CLASS-XII

TIME: 1.30 HOURS

M.M.: 40

GENERAL INSTRUCTIONS:

1. All questions are compulsory.
2. Attempt paper neatly.
3. Draw margins on both sides of the answer sheet.
4. Draw the diagrams wherever required.

Section A

(11X1=11)

- Q1. Name the type of pollination that ensures genetic variation?
- Q2. Which layer is made up of sporopollenin?
- Q3. Where does fertilisation normally take place in a human female?
- Q4. Mention the function of trophoblast in human embryos?
- Q5. What is the role of the bulbourethral gland?
- Q6. Name the three layers of the uterine wall?
- Q7. Expand FSH and HCG?
- Q8. Name the scientific term used for the membrane that surrounds an ovum?
- Q9. What do you mean by the word Emasculation and Bagging?
- Q10. Define Polyembryony?
- Q11. Ovary develops into _____ and ovules develop into _____.

Section B

(2 X 3=6)

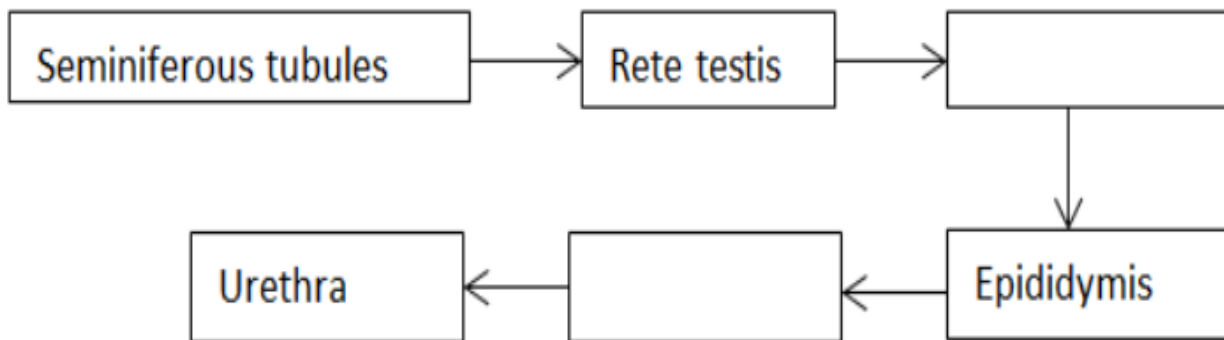
Q12. State the significance of the following stages during the lifetime of a female.

1. Menarche
2. Menopause

Q13. Why is an apple called a false fruit and a banana parthenocarpic fruit? Explain.

Q14.

Fill in the missing boxes exhibiting the route of sperm transport.

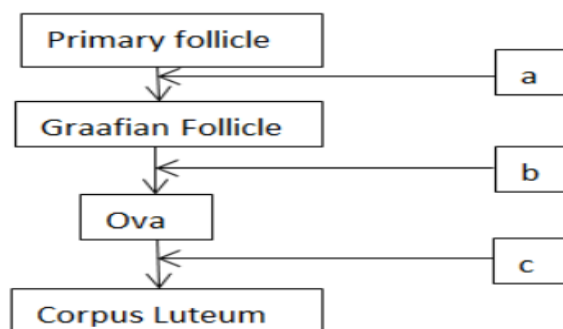


Section C

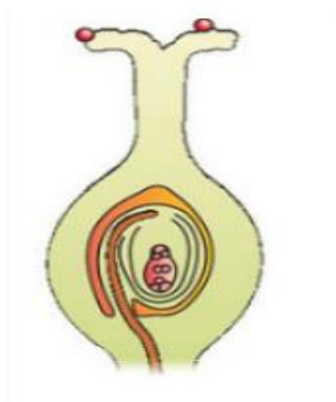
(3X3=9)

Q15. Draw a well labelled diagram of 7 celled 8 nucleus stages of embryo sac?

Q16. Mention the names of the hormones responsible for ovarian changes during the menstrual cycle in the boxes provided on the next page.



Q17. Show the direction of the pollen tube from the pollen on the stigma in the embryo sac in the given diagram.



Section D (2X5=10)

Q18. a) Explain the mechanism of Embryogeny in dicots?

b) Define self-incompatibility. How do self-incompatible plants pollinate?

Or

What are the stages of post-fertilization in plants?

Q19. a) Schematically represent and explain the events of permatogenesis in humans.

b) Is there any difference between apomixis and parthenocarpy? Explain the benefits of each.

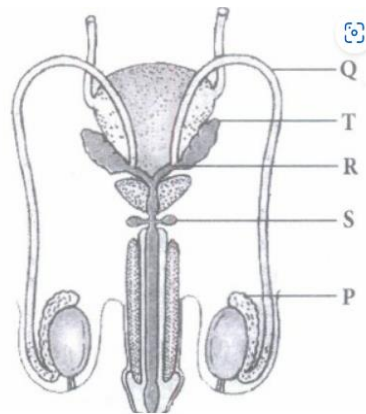
Or

a) Explain the role of pituitary gonadotropins during the follicular and ovulatory phases of the menstrual cycle. Describe the shifts in steroidal secretions.

Section E (4 X 1=4)

The human male reproductive system comprises a pair of testes, primary sex organs associated with the formation of gametes, and

production of sex hormones. Study the given figure of the human male reproductive system and answer the following questions.



(i) Which of the following is correct for labelled part P? Explain with reason.

(a) P is rete testis which transports sperms outside.	(b) P is epididymis which secretes fluid that nourishes the sperms	(c) P is epididymis that carries sperms and secretion of seminal vesicles	(d) P is rete testis which lies along the inner side of each testis and stores the sperms
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(ii) Identify the correctly matched pair.

(a) Q - Vasa efferentia	(b) R - Ejaculatory duct	(c) S - Seminal vesicle	(d) T - Cowper's gland
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(iii) Which statement is incorrect for Q?

(a) It carries spermatozoa from epididymis to ejaculatory duct	(b) Q are only 2 in number.	(c) It arises from rete testis.	(d) It constitutes male sex accessory duct
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(iv) Which structure passes through the prostate gland and carries sperms and secretion of seminal vesicles?

(a) P	(b) T	(c) S	(d) R
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