



विद्या सर्वार्थ साधिका

ANANDALAYA
PERIODIC TEST -1
Class : XII

Subject: Biology
Date : 14-07-2022

MM : 40
Time: 2 hours

General Instructions:

1. There are 17 questions in this question paper. All questions are compulsory.
2. This question paper has four sections: Section A, Section B, Section C and Section D.
3. Section A - Q. No. 1 to 5 are objective type questions and carry 1 mark each.
4. Section B - Q. No. 6 to 10 are short answer questions and carry 2 mark each.
5. Section C - Q. No. 11 to 15 are also short answer questions and carry 3 marks each.
6. Section D - Q. No. 16 and 17 are long answer question and carry 5 marks.
7. There is no overall choice. However, an internal choice has been provided in one question of three marks and one question of five marks. You have to attempt only one of the choices in such questions.

SECTION A

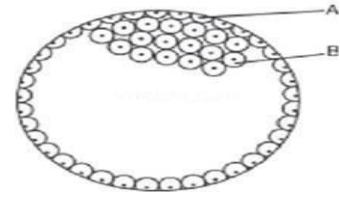
1. Which of the following hormones is not secreted by human placenta? (1)
(A) HCG (B) Progesterone
(C) LH Surge (D) Estrogen
2. Write the correct pathway for transport of sperm in human male reproductive system: (1)
Testis, Rete testis, Ejaculatory duct, Vas deferens, Epididymis, Vasa efferentia, Urethra
3. Read the Assertion and Reason carefully to mark the correct option out of the options given (1)
below:
(A) If both the Assertion and the Reason are true and the Reason is a correct explanation of the Assertion.
(B) If both the Assertion and Reason are true but the Reason is not a correct explanation of the Assertion.
(C) If the Assertion is true but the Reason is false.
(D) If both the Assertion and Reason are false.
Assertion: The endosperm of angiosperm is generally triploid.
Reason: It develops from primary endosperm nucleus formed by fusion of haploid male gamete and diploid secondary nucleus.
4. Mention any one event that are inhibited by the intake of oral contraceptive pills to prevent (1)
pregnancy in humans.
5. Fill in the blanks with appropriate words: (1)
Syphilis is caused by _____ and gonorrhoea is caused by _____.

SECTION B

6. Sexual reproduction in angiosperm consists of events such as pre-fertilisation, fertilisation (2)
and post-fertilisation. What are the stages of post-fertilization in plants?
7. Among the animal, insects particularly bees are the dominant pollinating agents. List any (2)
four characteristic features of the insect pollinated flower.

8. (a) How many sperms will be produced from 10 primary spermatocytes and how many eggs will be produced from 10 primary oocytes? (2)
 (b) How many haploid nuclei and haploid cells are present in female gametophyte of angiosperm?

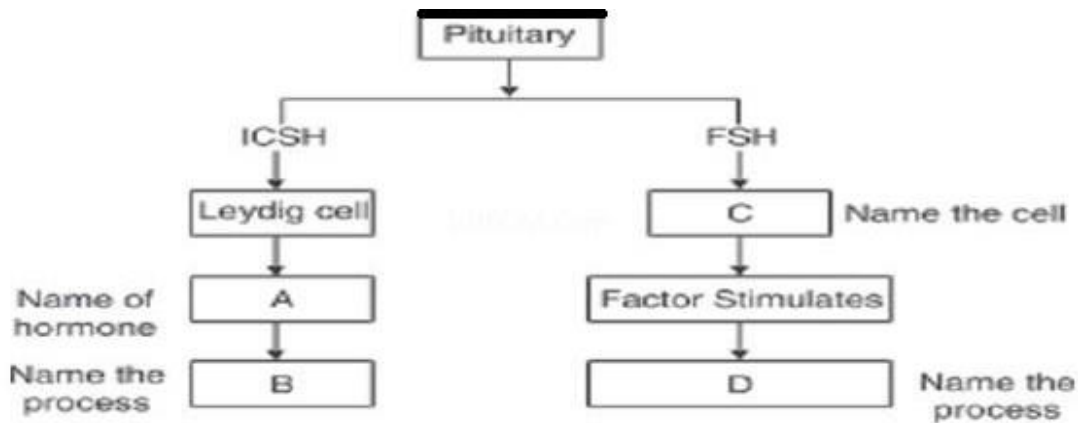
9. (a) Identify the given figure and write the name of parts labeled A and B. (2)
 (b) Mention the fate of part B after implantation in the uterus.



10. A mother of one year old daughter wanted to space her second child. Her doctor suggested an effective contraceptive for her. Which contraceptive would have been suggested by the doctor and why? (2)

SECTION C

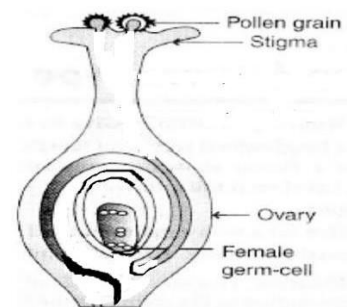
11. (a) Given below is an incomplete flow chart showing influence of hormone on gametogenesis in male, fill in the blank A, B, C and D. (3)
 (b) Expand ICSH and FSH.



12. A woman has conceived and implantation has occurred within her uterus. Describe the changes that takes place in the body of women after implantation till placenta formation. Name the secretions of embryonic placenta. (3)

13. Observe the diagram of pistil of a flower given below carefully:

- (a) Draw the diagram to show the direction of the pollen tube from the pollen on the stigma into the embryo sac in the given diagram.
 (b) Label the following parts in the given diagram: Funicle, Nucellus, chalaza and antipodals



14. Incompatibility is the natural barrier in fusion of gamete. Explain the ways by which incompatibility is achieved between organisms of different species. (3)

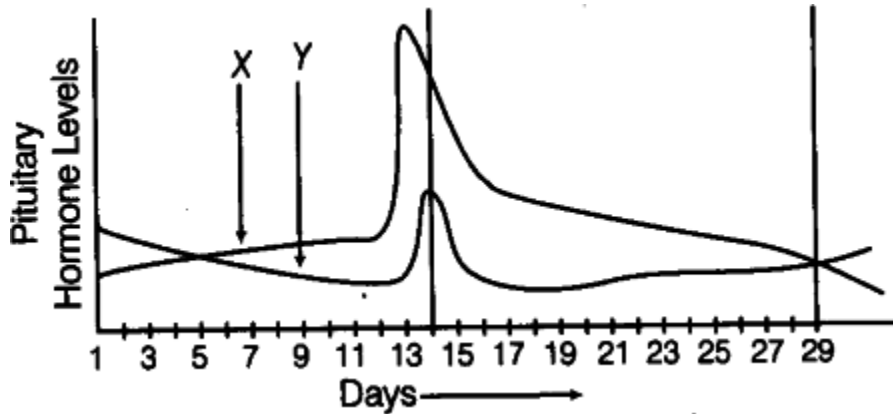
OR

- (a) Why is zygotes dominant for sometime in fertilized ovule.
 (b) What is polyembryony? Give an example.
 (c) In fruits, what is formed from integuments and primary endosperm of the ovule.

15. Write scientific reason for the following statements: (3)
- Removal of gonads cannot be considered as a contraception option
 - Males in whom testes fail to descend to the scrotum are generally infertile.
 - The term “Test -Tube Babies” is a misnomer.

SECTION D

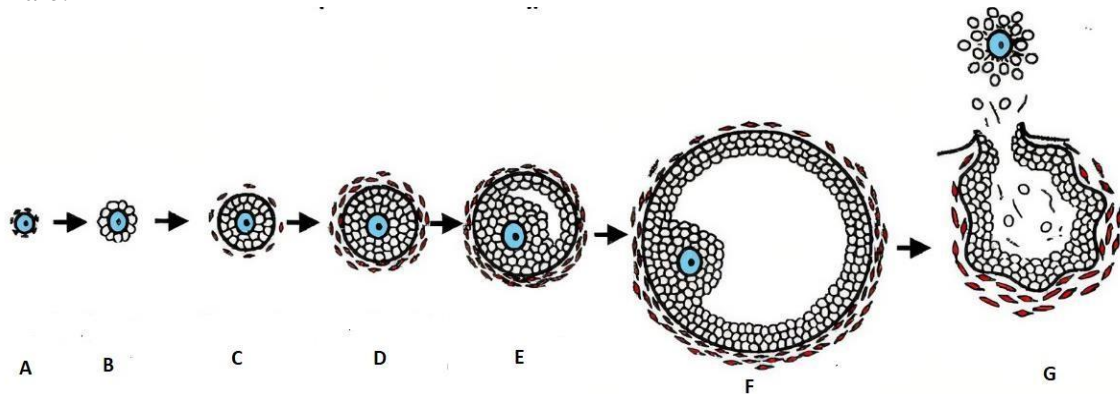
16. The given graph illustrates the influence of pituitary hormones over the menstrual cycle in human females. (5)



- Name the hormones ‘X’ and ‘Y’.
- Identify, the ovarian phases during menstrual cycle.
 - 5th-12th day of the cycle.
 - 16th-25th day of the cycle.
- Explain the ovarian phase (ii) under the influence of hormones ‘X’ and ‘Y’.
- What happens when both the hormone levels are at peak?

OR

The following is the illustration of the sequence of ovarian events ‘A’ to ‘G’ in a human female.



- Name the ovarian structure labelled as ‘A’ and ‘E’.
 - How is corpus luteum formed? Which figure illustrates corpus luteum and write its endocrine function.
 - Which event does the figure ‘G’ depicts? Why is it essential?
 - Describe the structure of ‘F’
17. (a) State any two differences between microsporogenesis and megasporogenesis. (5)
- Explain the stages involved in the maturation of a microspore into a pollen grain.