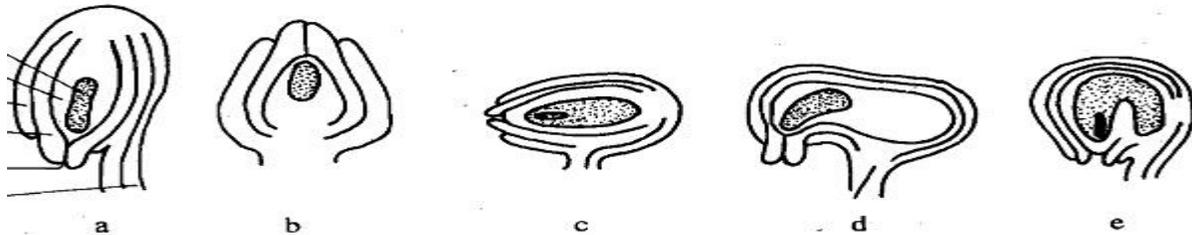


K.V. YOL CANTT. KANGRA HOLIDAY HOME WORK ( SUMMER VACATION) 2017-18  
PREPARED BY SAKUSHAL SANDHU PGT BIOLOGY

SUBJECT : BIOLOGY CLASS XII B  
UNIT VI : REPRODUCTION  
UNIT VII : GENETICS AND EVOLUTION

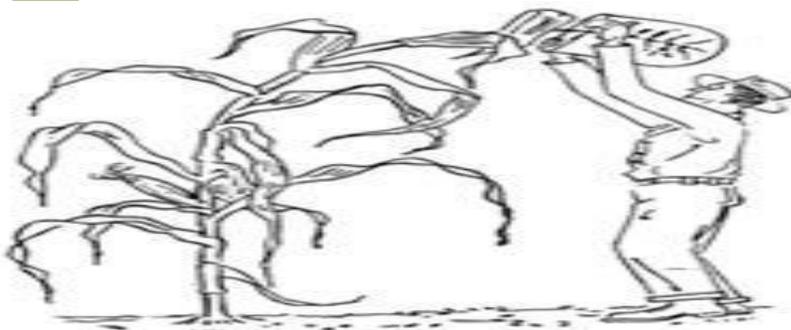
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- 1 State the difference between actinomorphic flower and zygomorphic flower?
2. What is a sessile flower? Give 2 examples.
- 3 Generative cell in the pollen has two nuclei with different functions. Justify.
- 4 . State a difference between Apocarpous and Syncarpous ovary

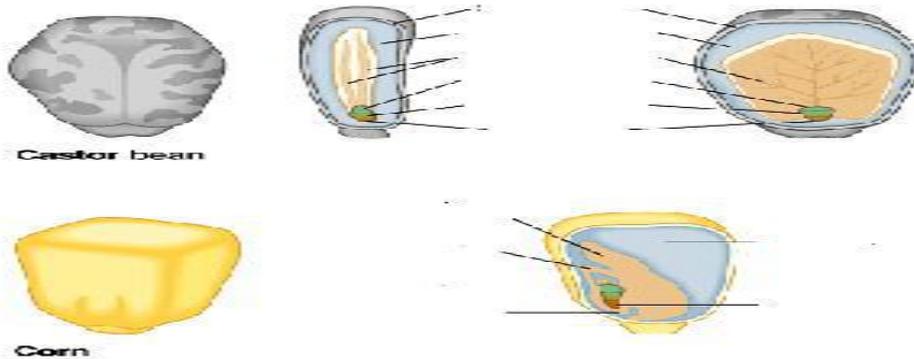


Identify the types of ovules given above.

5. Give the ploidy of the following in angiosperm plant.
  - a. Nucellus
  - b. MMC (Megaspore Mother Cell)
  - c. Functional megaspore
  - d. Female gametophyte
6. In angiosperms, the female gametophyte develops from the megaspore. Typically, the mature female gametophyte consists of how many cells and how many nuclei? Name this type too.
7. If the Pollen tube enters through integuments or funiculus then what is this process called? How does it differ from Porogamy?
8. What is Pollen-pistil interaction?
9. Which structure present at the micropylar part of the synergids guides the entry of pollen tube?

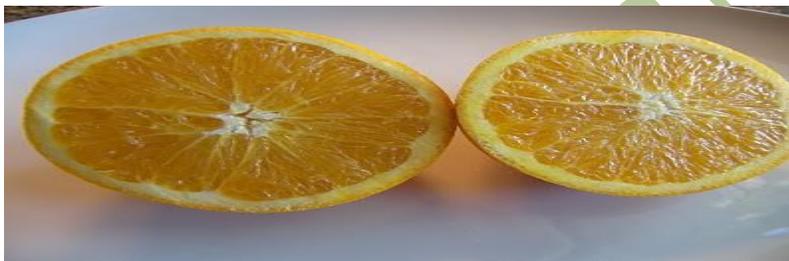


10. Why is bagging done in the process of artificial hybridization?  
 11. What is heterosis or hybrid vigour? Who coined this term?



Above is the diagram of dicot and monocot seed. Label various parts.

12. Give the ploidy of endosperm? How many types of endosperms are noted in flowering plants?  
 13. Who discovered Polyembryony in plants?  
 14. Who coined the term Apomixis?  
 15. Parthenocarpy is sometimes claimed to be the equivalent of parthenogenesis in animals. Is it true?



17. Observe the above pictures. Do they have seeds? Give the term used to describe such fruits and define it.

17. In the case of polyembryony, an embryo develops from the synergid and another from the nucellus. Which is diploid and which is haploid?

18. **Choose the write answer )**

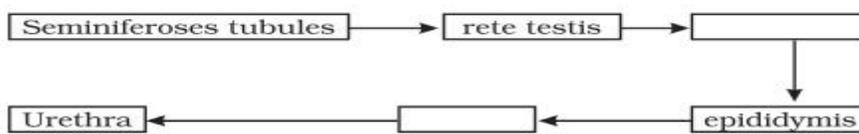
Which cells of testes secrete androgens?

a) sertoli cells b) leydig cells c) mast cells d) spermatogonia

ii) Which is the site of fertilization in human being?

a) uterus b) vagina c) ampulla –isthmus junction d) cervix

19. The path of sperm transport is given below. Provide the missing steps in blank boxes.



20. What role does pituitary gonadotrophins play during follicular and ovulatory phases of mensural cycle ? Explain the shift in steroidal secretions.
21. The zygote passes through several developmental stages till implantation , Describe each stage briefly with suitable diagrams .
22. Explain why placenta is called endocrine gland .
23. What are the ART,s practices to help infertile couples ? Describe any three such techniques.
24. What are contraceptive measures ? Is the use of contraceptive be justified ? Give reasons.
25. Explain the law of dominance using a monohybrid cross ?
26. When a cross is made between tall plant with yellow seed TtYy and tall plant with green seed Ttyy.  
What proportion of phenotype in the offspring could be expected a) Tall & green b) Dwarf & green.
27. A child has blood group O . If the father has blood group A and mother has blood group B, work out  
The genotype of parents and possible genotype of offsprings.
28. Construct the possible pedigree chart of haemophilic person and colour blind person . Why in all cases male are diseased and female are either normal or carrier .

#### SPECIAL ASSIGNMENT

Draw and labeled the diagrams in NCERT text book

- a) Fig. 2.3,2.7(d),2.8 , 3.2 , 3.3 , 3.5 , 3.8 , 3.9 , 5.7.
- b) Investigatory Project : To study at least 5 flowers each adapted to pollination by different agencies ( wind,insect, birds )