

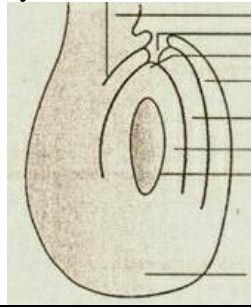


General Instructions: -

- This question paper consists of three sections **A, B, C**. Section **A** contains **5** questions of **1** mark each, section **B** is of **3** questions of **2** marks each, section **C** is of 3 questions of **3** marks each.
- All questions are compulsory.
- Questions of section **A** are of multiple choice question, section **B** to be answered in approximately **20-30** words each and section **C** in **30-50** words each

SECTION-A

1. The coconut water from tender coconut is
- | | |
|---|----------------------------|
| a. cellular endosperm. | b. free nuclear endosperm. |
| c. both cellular and nuclear endosperm. | d. free nuclear embryo. |
- (1)
2. In the figure of anatropous ovule given below, choose the correct option for the characteristic distribution of cells within the typical embryo sac



	Number of cells at chalazal end	Number of cells at micropylar end	Number of nuclei left in central cell
a	3	2	3
b	3	3	2
c	2	3	3
d	2	2	4

- 3.. Which of the following statements are true related to Seed X and Y?.

Seed X	Seed Y

- (i) Seed X is dicot and endospermic or albuminous.
- (ii) Seed X is dicot and non-endospermic or non-albuminous.
- (iii) Seed Y is monocot and endospermic or albuminous.
- (iv) Seed Y is monocot and non-endospermic or non-albuminous.

Choose the correct option with the respect to the nature of the seed

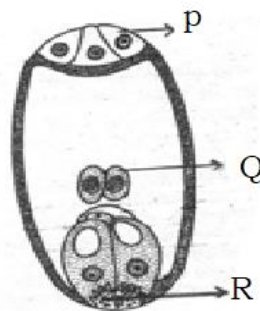
- a. (i), (iii) b. (ii), (iii)
c. (i), (iv) d. (ii), (iv) (1)

(1)

- 4 Pollen grains are well preserved as fossils because of presence of
 a. sporopollenin
 b. cellulose
 c. lignocelluloses
 d. pectocellulose (1)
5. Select the correct option of haploid cells from the following groups
 a. Meiocyte, Pollen grain, Tapetum
 b. Synergids, Antipodals, Ovum
 c. Sporogenous cell, Megaspore mother cell. Megaspore
 d. Megaspore mother cell. Megaspore, Nucellus (1)

SECTION-B

6. Draw a sectional view of seminiferous tubule in humans showing spermatogenesis and label the parts. (2)
7. Cleistogamous flower of Commelina are invariably auogamous. Mention one advantage and one disadvantage to the plant (2)
8. (a) Identify the parts marked P and R in the given figure. (2)
 (b) Mention the role played by the part labeled 'Q'.



SECTION-C

9. Draw schematic diagram of T.S of a mature anther. Label only the layers that help in dehiscence of the anther to release pollen grain
 b) Why is exine of the pollen not a continuous layer (3)
10. 'Incompatibility is a natural barrier in fusion of gametes' Justify the statement. (3)
11. a) Study the graph below and correlate the events that takes place in the ovary according to the hormonal levels on (3)
 (i) 14th day (ii) 16th -25th day
 (ii) What would happen if the ovum is not fertilized on 26th to 28th day?
 (c) Label the hormones a and b.

