Early Attempts at Sexual reproduction in flowering plants: 5 Intriguing Questions

CBSE: Term 2
Grade 10th: Biology

Instructions:

1. This set contains 5 questions.
2. Go through the questions properly.
3. Attempt all the questions.
4. Each question contains four options.
5. Only one of the options is correct.

1.

The union of male and female gametes is called fertilisation and the process leads to the production of a new offspring.
Identify the structures in column I which corresponds to structures in column II.

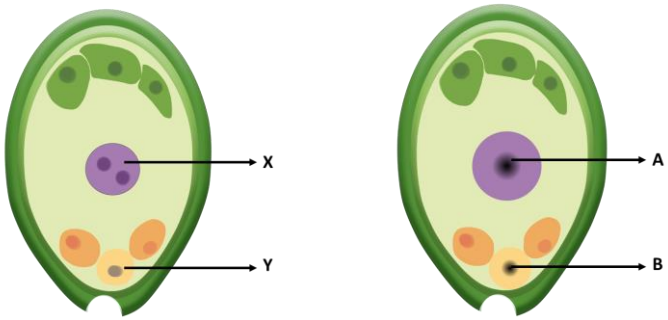
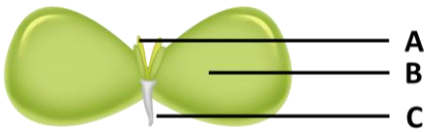
Column I	Column II
I. Egg cell	a. Endosperm
II. Polar nuclei	b. Fruit
III. Ovary	c. Seed
IV. Ovule	d. Zygote

A. I-b; II-c; III-a; IV-d
B. I-d; II-a; III-b; IV-c
C. I-d; II-b; III-a; IV-c
D. I-a; II-b; III-c; IV-d

2.

A plant ‘X’ has few flowers only with pistil and few other flowers only with stamens.
Another plant ‘Y’ has flowers with only stamens.
Choose the correct statement from the following that is true for the above condition.

A. Plant ‘X’ has bisexual flowers
B. Plant ‘Y’ has female flowers
C. Plant ‘X’ has incomplete flowers
D. Plant ‘Y’ has bisexual flowers

3.	Given below are the images of pre and post fertilisation. Observe the image carefully and match them with correct labeling.  A. X- Endosperm; Y- Zygote; A- Polar nuclei; B- Egg cell B. X- Zygote; Y- Endosperm; A- Polar nuclei; B- Egg cell C. X- Egg cell; Y- Polar nuclei; A- Endosperm; B- Zygote D. X- Polar nuclei; Y- Egg cell; A- Endosperm; B- Zygote
4.	Chromosomes play a vital role in deciding one's characteristics and are referred to as hereditary vehicles. They are thread-like structures found in the nucleus of plant and animal cells. The ratio of the number of chromosomes in a zygote to a male gamete is: A. 4 : 1 B. 2 : 1 C. 1 : 2 D. 1 : 4
5.	From the given image of a seed, identify the functions of structures A, B, and C.  A. A- Root formation; B- Nourishment; C- Shoot formation B. A- Nourishment; B- Shoot formation; C- Root formation C. A- Shoot formation; B- Nourishment; C- Root formation D. A- Nourishment; B- Root formation; C- Shoot formation