

FIRST QUARTERLY TEST AUGUST 2024

CLASS : II PUC SUBJECT : BIOLOGY (36) Max. Marks : 35
TIME : 1 Hr. 30 Mins.

Instructions:

1. The question paper consists of four parts A, B, C, and D.
2. Part-A consists of I and II and Part-D consists of Section I and II.
3. All the parts are compulsory.
4. Draw diagrams wherever necessary; unlabelled diagrams/illustrations do not attract any marks.

PART-A

I Select the correct alternative from the choices given below:

1x7=7

1. The innermost wall layer of microsporangium is
a) Epidermis b) Endothecium c) Middle layer d) Tapetum
2. Starting from the innermost part, choose the correct sequence of parts in an ovule.
a) Egg, nucellus, embryo sac, integument
b) Egg, embryo sac, nucellus, integument
c) Embryo sac, nucellus, integument, egg
d) Egg, integument, embryo Sac, nucellus
3. Perisperm is found in the seeds of
a) Black pepper b) Strawberry c) Beans d) Ground nut
4. Spermiogenesis is the process of release of sperms from
a) Epididymis b) Vas deferens c) Seminiferous tubules d) Vasa efferentia
5. Which among the following has 23 chromosomes
a) Oogonia b) Primary oocyte c) Secondary oocyte d) Zygote
6. The embryo with 8-16 blastomeres is called
a) Cleavage b) Zygote c) Blastocysts d) Morula
7. The method of directly injecting a sperm into an ovum in ART is called
a) IVF-ET b) ICSI c) ZIFT d) GIFT

II Fill in the blanks by choosing the appropriate word from those given below: 1x3=3 (Alleles, Chasmogamous, Cleistogamous, LH)

8. Flowers which do not open at all are called _____.
9. Ovulation is induced by a hormone called _____.
10. Genes which code for a pair of contrasting pairs are called _____.

PART-B

III Answer any THREE of the following questions in 3-5 sentences each, wherever applicable:

2x3=6

11. What is emasculation? Why does plant breeder employ this technique?
12. Placenta also acts as an endocrine tissue. Justify the statement.
13. Mention the reasons for population explosion.
14. List any four reasons for infertility in humans.
15. What is test cross? Mention its significance.

(P.T.O)

PART-C

IV Answer any THREE of the following questions in about 40-80 words each, wherever applicable:

3x3=9

16. Draw and label L.S. of an embryo of Grass.
17. Explain the mechanism of pollination in vallisneria and seagrass.
18. Write the schematic representation of oogenesis.
19. Write a brief note on hormonal regulation of spermatogenesis.
20. Define linkage ? What are the conclusions drawn by T. H. Morgan from the crossing experiment in Drosophila with respect to linkage.

PART-D

SECTION-I

V Answer any ONE of the following questions in about 200-250 words each, wherever applicable:

5x1=5

21. Draw a neat labelled diagram of sectional view of Human Female Reproductive System.
22. a) Write the essential features required for ideal contraceptive.
b) Explain three types of IUD's.

SECTION-II

VI Answer any ONE of the following questions in about 200-250 words each, wherever applicable:

5x1=5

23. Give reasons.
 - i) Most zygotes in angiosperms divide only after certain amount of endosperm is formed.
 - ii) Groundnut seeds are exalbuminous and castor seeds are albuminous.
 - iii) Micropyle remains as a small pore in the seed coat of a seed.
 - iv) Integuments of an ovule harden and the water content is highly reduced as the seed matures.
 - v) Apple and Cashew are not called true fruits.
24. A plant with red flower was crossed with another plant with white flower. If F_1 hybrid showed all flowers pink in colour, explain the inheritance.
