



# BIOLOGY

## BOOKS - ARIHANT PRAKASHAN

### VERY SIMILAR TEST 3

#### Section A Botany Group A Fill In The Blanks

1. Pistil may be . . . . if more than one pistil are fused together .

A. syncarpous

B. multicarpellary

C. apocarpous

D. monocarpellary

**Answer: A::C**



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2. Which enzyme is used in clarifying fruit juices?

A. Cellulase

B. Amylase

C. Lipase

D. Pectinase

**Answer: A::C**



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**3. Most hazardous gaseous pollutant of automobile exhaust is .....**

A.  $CH_4$

B.  $CO_2$

C.  $CO$

D.  $NO_2$

**Answer: A::B::C::D**



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4. . . . . has dual function as it codes for methionine and also acts as initiation codon

A. AAU

B. AUG

C. UAA

D. UAG

**Answer: A**



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5. Monohybrid cross yields . . . . types or number of genotypes in  $F_1$  - generation

A. one

B. three

C. two

D. four

**Answer:**



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6. Removal of stamens flower before the anthers mature ?



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7. RNA does not have guanine as nitrogenous base. Correct the statements if required by changing the underlined word.



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8. Out of the total solar energy, PAR is only 1-5%.



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9. A flower is said to .....when both the sex organs are missing.



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10. Dahlia reproduces vegetatively by stems



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**Section A Botany Group B**



1. Parthenocarpic tomato fruits can be produced by:



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2. Objectives of plants breeding



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3. Write short note on types of xerophytes.



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4. Write short note on the following

Sporulation



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5. Loops of tRNA



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6. Detritus food chain



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7. Differentiate between

Mesophytes and Hydrophytes



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8. Differentiate between any one of the following with 2 to 3 important points.

Anther culture and Endosperm culture



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9. Chasmogamous and Cleistogamous flower.



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## Section A Botany Group C

1. Explain the mechanism of double fertilization.



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2. List the changes each part of the fertilised ovule undergoes to develop into a seed



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3. Give a pure genetic explanation for the following cross, when a tall pea plant with round seeds was crossed with a pea plant that is dwarf having wrinkled seeds. Individuals of  $F_1$  population were all tall having round seeds. However, selfing among  $F_1$  population led to a 9 : 3 : 3 : 1 phenotypic ratio



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4. Explain the process of DNA replication with the help of a diagram. In which phase of the cell cycle does it occur in eukaryotes? What would happen if cell division is not followed after DNA replication?



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5. List out the events that reduce Biological Oxygen Demand (BOD) of a primary effluent

during sewage treatment



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## Section B Zoology Group A

1. Name the scientists who developed the first transgenic mice



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2. Ringworm in humans is caused by

A. viruses

B. bacteria

C. fungi

D. nematodes

**Answer:**



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**3.** Sex chromosomes of a female bird are represented by



A. XO

B. XX

C. ZW

D. ZZ

**Answer:**



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**4.** A sexually transmitted disease symptomised by the development of chancre on the genitals is caused by

A. HIV

B. hepatitis - B virus

C. Neisseria

D. Treponema pallidum

**Answer: A::B::C::D**



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5. Mammalian placenta is formed from

A. yolk sac

B. chorion allantois

C. chorion

D. amnion

**Answer: A::B::C::D**



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6. Antibody production is assisted by monocytes.



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7. Phenomenon of rejection of self cells is called .....



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8. The scientific name of the pathogen causing ascariasis is ....



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9. Exotic breed of poultry bird is ....



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10. The lower invertebrates emerged during the



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## Section B Zoology Group B

1. What are molecular diagnostic techniques ?



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**2. Describe what is intrauterine insemination**



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**3. Atavism is**



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**4. What are Interferons ?**



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5. Describe swarming.



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6. What is phagocytosis ?



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7. Differentiate between Communicable diseases and Non-communicable diseases.





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8. Lamarckism and Darwinism.



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9. Difference between: Benign Tumour and Malignant Tumour.



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## 1. Secondary sexual characters



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## 2. Mammary glands



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## 3. What is Hardy -Weinberg principle?



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#### 4. XO type sex-determination



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5. Describe various environmental factors that help in sex-determination.



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6. Mention the event that induces the completion of the meiotic division of the

secondary oocyte



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7. Trace the journey of the ovum from the ovary, its fertilisation and further development until the implantation of the embryo



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8. Describe the characteristics a cloning vector must possess.



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**9. How bacterial cells are made competent to take up DNA?**



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