



BIOLOGY

BOOKS - ARIHANT PUBLICATION

SAMPLE PAPER 3

Section A Botany Group I

1. Choose the correct answer from the choices given under each bit/Correct the underlined portion of the sentences.

When a stem cutting of suitable length is planted in moist soil with nutrients, the process is called

A. layering

B. cutting

C. budding

D. subaerial stem grafting

Answer:



Watch Video Solution

2. Choose the correct answer from the choices given under each bit/Correct the underlined portion of the sentences.

The maturation of anther and stigma at different times is

A. homogamy

B. autogamy

C. dichogamy

D. cleistogamy

Answer:



3. Choose the correct answer from the choices given under each bit/Correct the underlined portion of the sentences.

Which one of the following represents a test cross?

A. $Ww \times WW$

B. $Ww \times Ww$

C. $Ww \times ww$

D. $WW \times WW$

Answer:



Watch Video Solution

4. Fill in the blank

An undifferentiated mass of cells is called



Watch Video Solution

5. Choose the correct answer from the choices given under each bit/Correct the underlined portion of the sentences.

One way outward movement due to overcrowding or population pressure is called immigration.



Watch Video Solution

6. Fill in the blanks with correct answer(s)/Give the answer in one word only.

..... is the leader sequence in prokaryotic mRNA just prior to AUG codon.



Watch Video Solution

7. Fill in the blanks with correct answer(s)/Give the answer in one word only.

The fruits developing from a single flower having one or more separate carpels are



Watch Video Solution

8. Fill in the blanks with correct answer(s)/Give the answer in one word only.

The complementary base of cytosine in a DNA molecule is



Watch Video Solution

9. Fill in the blanks with correct answer(s)/Give the answer in one word only.

..... is the process by which number of individuals increases after ecesis.



Watch Video Solution

10. Fill in the blanks with correct answer(s)/Give the answer in one word only.

..... is done between the F_1 -hybrid and one of the homozygous parent.



Watch Video Solution

Section A Botany Group II

1. Write short note on the following

Sporulation



Watch Video Solution

2. Write short note on the following

Eutrophication



Watch Video Solution

3. Write short note on any three of the

following

Biome



Watch Video Solution

4. Write short note on the following

DNA fingerprinting



Watch Video Solution

5. Write short note on the following Microbes

and their uses in human welfare



Watch Video Solution

6. Write short note on the following

Carbon cycle



Watch Video Solution

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

Hydrophytes and Xerophytes



Watch Video Solution

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

Transcription in prokaryotes and eukaryotes



Watch Video Solution

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

Anther culture and Endosperm culture



Watch Video Solution

Section A Botany Group Iii

1. Describe the semiconservative model of DNA replication



Watch Video Solution

2. Briefly discuss the formation of male gametophyte.



Watch Video Solution

3. Answer the following within 200 words.

Give an account of laws of inheritance proposed by Mendel.



Watch Video Solution

4. Answer the following within 200 words.

What is water pollution? How does the use of agrochemicals aid in pollution of water bodies?



Watch Video Solution

Section B Zoology Group I

1. Lack of independent assortment of two genes A and B in fruitfly is due to

A. crossing over

B. repulsion

C. linkage

D. recombination

Answer:



Watch Video Solution

2. Choose the correct answer from the choices given under each bit/Correct the underlined portion of the sentences.

Addiction to the tobacco smoking may cause

- A. retardation of protein
- B. reduction in bone density
- C. increase in blood sugar level
- D. cancer

Answer:



Watch Video Solution

3. Choose the correct answer from the choices given under each bit/Correct the underlined portion of the sentences.

Which of the following contraceptive methods suppress endometrial changes, cause an ovulation and insufficient luteal activity?

A. IUCDs

B. Diaphragms

C. Condom

D. Oral pills

Answer:



Watch Video Solution

4. Choose the correct answer from the choices given under each bit/Correct the underlined portion of the sentences.

Alpha diversity refers to the diversity of organisms among communities in a geographical area.



Watch Video Solution

5. Choose the correct answer from the choices given under each bit/Correct the underlined portion of the sentences.

The use of organisms in clearing oil spills from water bodies is called bioaccumulation.



Watch Video Solution

6. Fill in the blanks with correct answer(s)/Give the answer in one word only.

A hydrolytic enzyme present in all mucus secretions lysis Gram positive bacteria is



Watch Video Solution

7. Fill in the blanks with correct answer(s)/Give the answer in one word only.

..... can be used to overcome inbreeding depression in animals.



Watch Video Solution

8. Fill in the blanks with correct answer(s)/Give the answer in one word only.

For gene transfer in plant cells is used.



Watch Video Solution

9. Fill in the blanks with correct answer(s)/Give the answer in one word only.

Name the flies (in *Drosophila*) in which a part of the body exhibits female characters.



Watch Video Solution

10. Fill in the blanks with correct answer(s)/Give the answer in one word only.

The science that deals with fossil study of both plants and animals.



Watch Video Solution

Section B Zoology Group Ii

1. Write Short notes on Recombinant DNA technology



[Watch Video Solution](#)

2. Answer any three of the following (restrict
nt sentences).

Describe the strategy for crop protection by
Bt-protein.



[Watch Video Solution](#)

3. Answer the following What are the modern
methods of animal breeding?



Watch Video Solution

4. Answer any three of the following (restrict
nt sentences).

Write in brief about the AIDS, its causative
agent and prevention and control methods.



Watch Video Solution

5. Answer any three of the following (restrict
nt sentences).

Comment on industrial melanism in *Biston betularia*.



Watch Video Solution

6. Answer the following

What are sex chromosomes?



Watch Video Solution

7. Differentiate between any one of the following :

Cancerous cell and Normal cell



Watch Video Solution

8. Differentiate between : Spermatogenesis and Spermiogenesis



Watch Video Solution

9. Differentiate between any one of the following :

Vasectomy and Tubectomy



Watch Video Solution

Section B Zoology Group Iii

1. Describe the structure of DNA studied by Watson and Crick.



Watch Video Solution

2. How does the study of comparative anatomy of living organism explain the process of

evolution?



Watch Video Solution

3. Answer the following :

Describe the formation of spermatids in human males. Also draw a well-labelled diagram of the same.



Watch Video Solution

4. Answer the following :

Write short notes on the following :

In vitro fertilisation



Watch Video Solution

5. Answer the following :

Write short notes on the following :

Palaeontological evidences of evolution



Watch Video Solution

6. Answer the following :

Write short notes on the following :

Cancer



Watch Video Solution

7. Answer the following :

Write short notes on the following :

Apiculture



Watch Video Solution