



# **BIOLOGY**

## **BOOKS - FULL MARKS BIOLOGY (TAMIL ENGLISH)**

### **SAMPLE PAPER -20 (MOCK TEST PAPER) (UNSOLVED)**

**Bio Botany Part I**

**1. Pollen tube was discovered by**

A. J.G kolreuter

B. G.B Amici

C. E.Strasburger

D. E.Hanning

**Answer:**



**Watch Video Solution**

**2. Test cross involves**

- A. Crossing between two genotypes with recessive traits
- B. Crossing between two  $F_1$  hybrids
- C. Crossing between two genotypes with dominant traits
- D. Crossing  $F_1$  hybrid with double recessive genotype

**Answer:**



**Watch Video Solution**

### 3. Match the following

Column I	Column II
1. Monosomy	(i) $2n + 2$
2. Polyploidy	(ii) $2n - 1$
3. Nullisomy	(iii) $2n + n$
4. Tetrasomy	(iv) $2n - 2$

A. a) 1-(ii),2-(iii),3-(iv),4-(i)

B. b) 1-(ii),2-(i),3-(iv),4-(iii)

C. c) 1-(iv),2-(iii),3-(ii),4-(iv)

D. d) 1-(ii),2-(iii),-3(i),4-(iv)

**Answer:**



**Watch Video Solution**

4. Solidifying agent used in plant tissue culture is

- A. Nicotinic acid
- B. Cobalt Chloride
- C. EDTA
- D. Agar

**Answer:**



**Watch Video Solution**

5. Find the wrongly matched pair

A. Endemism - Species confined to a region and not found anywhere else.

B. Hotspots - Western ghats

C. Ex-situ conservation-Zoological parks

D. Sacred groves - Saintri hills of Rajasthan

**Answer:**



**Watch Video Solution**

**6. Assertion:** Vegetables are important part of healthy eating. **Reason:** Vegetables are succulent structures of plants with pleasant aroma and flavours.

A. Assertion is correct , Reason is wrong.

B. Assertion is wrong. Reason is correct.

C. Both are correct and reason is the correct explanation for assertion.

D. Both are correct and reason is not correct explanation for assertion.

**Answer:**



**Watch Video Solution**

7. Azolla is best suited biofertilizer for ..... .

A. a) Sugarcane cultivation

B. b) Paddy cultivation

C. c) Wheat cultivation

D. d) Cotton cultivation

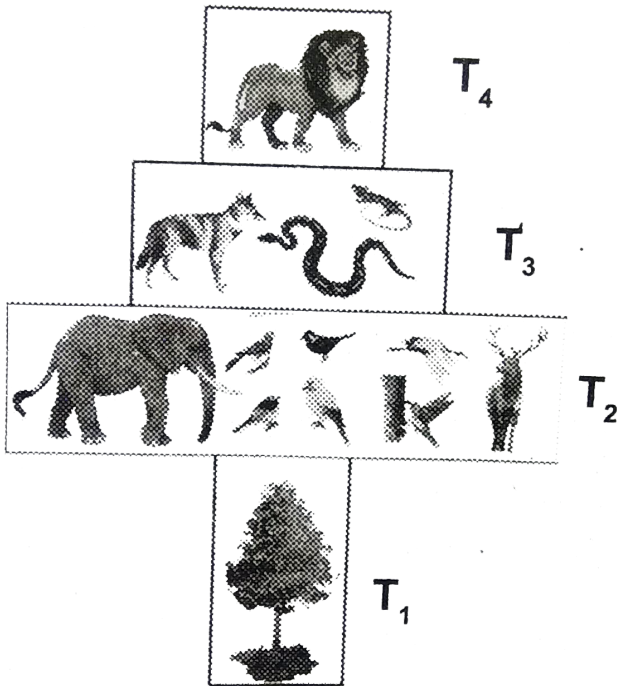
**Answer:**





Watch Video Solution

8. The following diagram represents



A. a) pyramid of number is a grassland ecosystem

B. b) pyramid of number is pond ecosystem

C. c) pyramid of number in a forest ecosystem

D. d) pyramid of biomass in pond ecosystem

**Answer:**



**Watch Video Solution**

1. Pollination in Gymnosperms is different from Angiosperms - Give reasons.



[Watch Video Solution](#)

2. What is back cross ?



[Watch Video Solution](#)

3. Write the various steps involved in cell suspension culture.



[Watch Video Solution](#)

4. Why are some organisms called as eurythermals and some others as stenothermals ?



[Watch Video Solution](#)

5. Define Dobson unit .



[Watch Video Solution](#)

6. Which is called as "The King of Bitters"?

Mention their medicinal importance.



[Watch Video Solution](#)

1. What is gene mapping? Write its uses.



**Watch Video Solution**

2. What do you know about the word pBR332?



**Watch Video Solution**

3. What is Cryopreservation?



**Watch Video Solution**

4. Shape of pyramid in a particular ecosystem is always different in shape.Explain with Example.



[Watch Video Solution](#)

5. Differentiate primary introduction from secondary introduction.



[Watch Video Solution](#)

1. What endosperm ? Explain the types .



**Watch Video Solution**

2. Compare the various types of blotting techniques.



**Watch Video Solution**



3. List out the new breeding techniques involved in developing new traits in plant breeding .



[Watch Video Solution](#)

4. What are psychoactive drugs ? Add a note Marijuana and opium.



[Watch Video Solution](#)

1. In which type of parthenogenesis are only males produced ?

A. a) Arrhenotoky

B. b) Thelytoky

C. c) Amphitoky

D. d) Both (a) and (b)

**Answer:**



**Watch Video Solution**

2. Select the wrongly matched pair

A. Bleeding phase-fall in Oestrogen & progesterone

B. Follicular phase - rise in Oestrogen

C. Luteal phase- rise in FSH level

D. Ovulatory phase - LH surge

**Answer:**



**Watch Video Solution**

3. Haemophilia is more common in males because it is a

A. Recessive character carried by Y-chromosome

B. Dominant character carried by Y-chromosome

C. Dominant trait carried X-chromosome

D. Recessive trait carried by X-chromosome

**Answer:**



**Watch Video Solution**

4. The total number of nitrogenous bases in human genome is estimated to be about

A. 3.5 million

B. 35000

C. 35 million

D. 3.1 billion

**Answer:**



**Watch Video Solution**

5. Choose the correctly matched pair.

- (a) Amphetamines – Stimulant
- (b) LSD – Narcotic
- (c) Heroin – Psychotropic
- (d) Benzodiazepine – Pain killer

A. Amphetamines - stimulant

B. LSD-Narcotic

C. Heroin - Psychotropic

D. Benzodiazepine - pain killer

**Answer:**



**Watch Video Solution**

## 6. Match the following

- |                    |                                    |
|--------------------|------------------------------------|
| 1. Bio fertilizer  | (i) <i>Bacillus thuringiensis</i>  |
| 2. Bio remediation | (ii) <i>Rhizobium</i>              |
| 3. Bio pesticide   | (iii) <i>Pseudomonas</i>           |
| 4. Bio herbicide   | (iv) <i>phytophthora palmivora</i> |

A. a) 1-(iii),2-(i),3-(iv),4-(ii)

B. b) 1-(ii),2-(iii),3-(i),4-(iv)

C. c) 1-(ii),2-(i),3-(iv),4-(iii)

D. d) 1-(iii),2-(iv),3-(i),4-(ii)

**Answer:**



**Watch Video Solution**

7. The relationship between sucker fish and shark is .....

A. Competition

B. Commensalism

C. Prection

D. Parasitism

**Answer:**



**Watch Video Solution**



8. Right to Clean Water is a fundamental right, under the Indian Constitution

A. Article 12

B. Article 21

C. Article 31

D. Article 41

**Answer:**



**Watch Video Solution**

1. What is parthenogenesis? Give two examples from animals.



[Watch Video Solution](#)

2. Draw a labeled sketch of a spermatozoan.



[Watch Video Solution](#)

**3.** Amniocentesis, the foetal sex determination test, is banned in our country, Is it necessary?

Comment.



**Watch Video Solution**

**4.** Who disproved Lamarck's Theory of acquired characters? How ?



**Watch Video Solution**

5. List the common withdrawal symptoms of drugs and alcohol abuse.



[Watch Video Solution](#)

6. Explain how "Rosie" is different from a normal cow.



[Watch Video Solution](#)

1. Mention any three symptoms of (a) Phenylketonuria (b) Down's syndrome



**Watch Video Solution**

2. Explain the role of cry-genes in genetically modified crops.



**Watch Video Solution**

3. Amazon forest is considered to be the lungs of the planet "- Justify this statement.



[Watch Video Solution](#)

4. Write a brief note on Chipko Movement.



[Watch Video Solution](#)

5. A low level of expression of lac operon occurs at all the time in E.coli Justify the

statement .



**Watch Video Solution**

## **Bio Zoology Part Iv**

**1. List the salient features of genetic code.**



**Watch Video Solution**

**2. Point out the differences between active and passive immunity .**



**Watch Video Solution**

**3. How is the amplification of a gene sample of interest carried out using PCR ?**



**Watch Video Solution**

**4. Give an account of grassland biome**



**Watch Video Solution**