

India's Number 1 Education App

BIOLOGY

BOOKS - FULL MARKS BIOLOGY (TAMIL ENGLISH)

SAMPLE PAPER -03

Bio Botany Part I

1. Match the following

Gene interactions
(A) Complementary genes
(B) Supplementary genes
(C) Co - dominance
(D) Duplicate genes

 F_2 Phenotype ratio (i)1:2:1 (ii)9:7 (iii)15:1 (iv)9:3:4

A. A-(iv), B-(iii),C-(i), D-(ii)

B. A-(ii),B-(iv),C-(i),D-(iii)

C. A-(iii),B-(iv),C-(ii),D-(i)

D. A-(iii),B-(i),C-(iv),D-(i)

Answer:

- **2.** Changing the codon AGC to AGA represents
 - A. Mis-sense mutation
 - B. Non-sense mutation
 - C. Frame-shift mutation
 - D. Deletion mutation

Answer:

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- 3. Restriction enzymes are
 - A. Not always required in genetic engineering
 - B. Essential tools in genetic engineering
 - C. Nucleases that cleave DNA at specific sites
 - D. Both b and c

Answer:



4. Totipotency refers to

A. Capacity to generate genetically identical

plants

B. capacity to generate a whole plant from

any plant cell/explant

C. capacity to generate hybrid protoplasts

D. recovery to healthy plants from diseased

plants

Answer:

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5. In soil water available for plants is

A. gravitational water

B. Chemically bound water

C. Capillary water

D. hygroscopic water

Answer:



6. Which one is in descending order of a food

chain?

A. Producers $ ightarrow$ secondary consumers $ ightarrow$
Primary consumers $\ o$ Teriary consumers
B. Tertiary consumers $ ightarrow$ Primary
consumers $ ightarrow$ Secondary consumers $ ightarrow$
Producers
C. Tertiary consumers $ ightarrow$ secondary
consumers $ ightarrow$ Prlmary consumers $ ightarrow$
Producers
Producers $ o$ Producers $ o$ Producers $ o$

consumers

Answer:

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7. Clean Development Mechanism (CDM) is defined in....

A. Copenhagen Acord

B. Montreal protocol

C. Pairs Agreement

D. Kyoto protocol

Answer:

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Bio Botany Part li

1. Pick out the odd pair.

A. Man selection - Morphological characters

B. Pureline selection - Repeated self

pollination

C. Clonal selection - Sexually propagated

D. Natural selection - Involves nature

Answer:

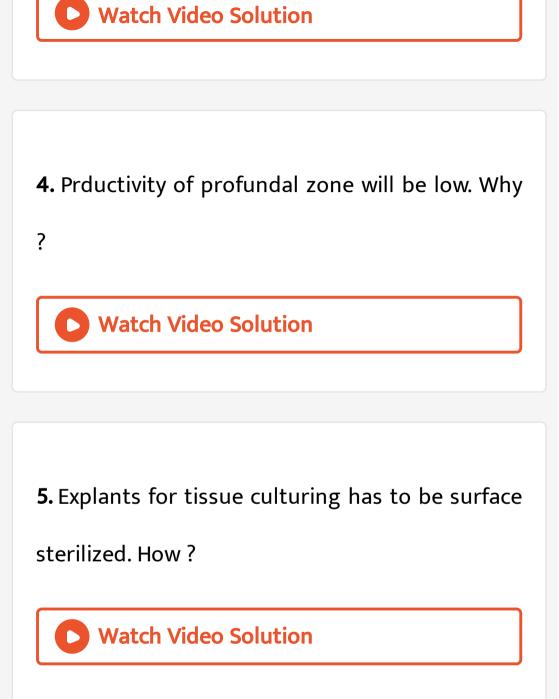


2. Write a short note on pollen kitt.



3. What is back cross ?





6. Define heterostl, through which way does this

conition can be maintained for generation .



7. Discuss which wood is better for making

furniture.

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Bio Botany Part lii

1. Give the names of the scientists who

rediscovered mendel's work.



2. Write the advantages and disadvantages of Bt

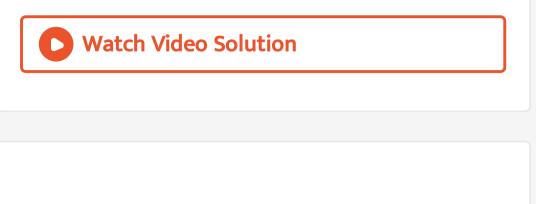
cotton.

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3. How cryopreservation works?

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4. What is Co-evolution? Give examples.



5. Write a short note on Chipko Movement.

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Bio Botany Part Iv

1. Name the tissue that nourishes the embryo in angiosperm seeds. Explain its types. Structure of ovule (Megasporangium):



2. Give the protocol for Micropropagation in

Banana.

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Bio Zoology Part 1

1. Assertion (A): Organisms show three phases in their life cycle.

Reason (R): Juvenile phase is a degenerative phase.

A. A is correct. R is incorrect

B. Both A and R are incorrect

C. R is the correct explantation for A

D. A is not correct but R is correct .

Answer:

2. Find the wrongly matched pair

A. Bleeding phase - fall in oestrogen and

progesterone

B. Follicular phase - rise in oestrogen

C. Luteal phase - rise in FSH level

D. Ovulatory phase - LH surge

Answer:



3. Identify the correct statements from the following.

A. Chlamydisis is a viral disease

B. Gonorrhoea is caused by a spirochaete

bacterium, treponema pallalium

C. The incubation period for syphilis is 2 to 14

days is males and 7 to 21 days in females.

D. Both syphills and gonorrhoea are easily

cured with antibiotics.





4. Klinefclter's syndrome is characterized by a

karyotype of

A. XYY

B. XO

C. XXX

D. XXY

Answer:



5. The golden age of reptiles was

A. Mesozoic era

B. Cenozoic era

C. paleozoic era

D. Proterozoic era

Answer:



6. Match list I with list II.

List I

Raw material

A)Germinated barley malt

B) Fermented sugarcane

C) Fermented sap of palm tree (3) Rum

D) Fermented grape juice

A. A-2, B-4, C-3, D-1

B. A-4, B-3, C-2,D-1

C. A-2, B-3, C-4, D-1

D. A-3, B-1,C-4,D-2

Answer:



List III Product obtained (1) Wine

- (2) Toddy
 - (2) D
- (4) Beer



7. The relationship between sucker fish and shark

is

A. Competition

B. Commensalism

C. Predation

D. Parasitism

Answer:

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8. Who is called as the forest man of India?

A. Sunderlal Bahuguna

B. M.S. Swamination

C. Dr. V. Kurien

D. Jadav Payeng

Answer:



Bio Zoology Part Ii

1. Mention the importance of the position of the

testes in humans.



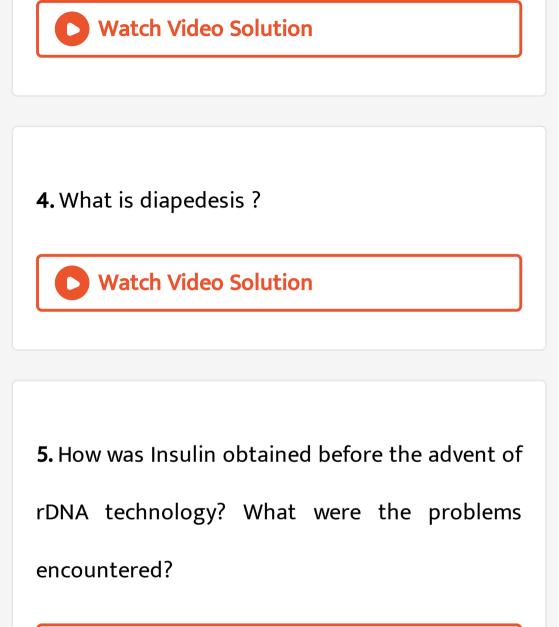
2. Type A blood should not be injected to a

person having B-blood group. Why?

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3. Name the anticodon required to recognize the

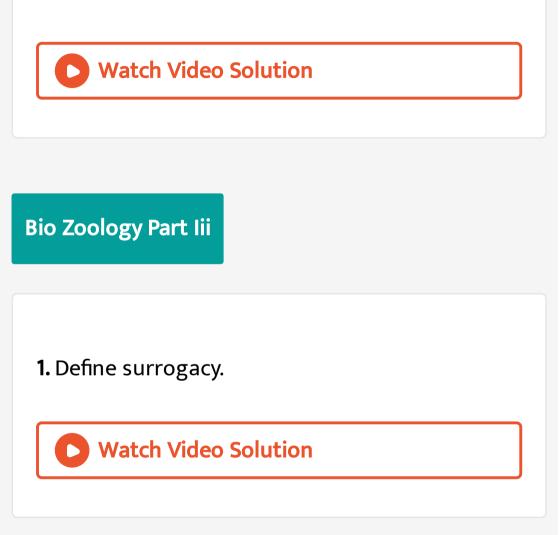
following codons: AAU, CGA, UAU, and GCA.



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6. How many hotspots are there in India? Name

them.



2. Differentiate between divergent evolution and

convergent evolution with one example for each.



3. Under which condition does a microbe gains

resistance against antibiotic?

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4. Expand (i) CFC (ii) AQI (III) PAN





5. Mention the number of primers required in each cycle of PCR. Writen the role of primers and DNA polymerase in PCR. Name the source organism of DNA polymerase used in PCR.



Bio Zoology Part Iv

 Menstruation - a cyclic event occurring in every normal woman throughout her fertile period .
 Name the various phases of the menstruation and explain it.



2. Explain the structure of Immunoglobulin

molecule with a suitable diagram.

