

Tsi12Bio

Tenkasi District
Common Half Yearly Examination - 2024



18.12.24

Time: 3.00 Hours

Standard 12
BIOLOGY
Part - I (BIO-BOTANY)
Section - I

Marks: 70
Marks: 35

I. Answer all the questions.**8x1=8**

- 1) Size of pollen grain in myosotis is
a) 10 μm b) 2000 μm c) 20 μm d) 200 μm
- 2) **Assertion (A)** : Gamma rays are generally used to induce mutations in wheat varieties
Reason (R) : Because they carry lower energy to non-ionize electrons from atom
a) (A) is wrong (R) is correct b) (A) and (R) are correct
c) (A) and (R) are wrong d) (A) is correct (R) is wrong
- 3) Fruit colour in squash is an example of
a) complementary genes b) Recessive epistasis
c) Inhibitory genes d) Dominant epistasis
- 4) Match the following

Column I		Column II	
1) Cowpea		i) Pusa Sadabahar	
2) Wheat		ii) Pusa Swarnim	
3) Chilli		iii) Himgiri	
4) Brassica		iv) Pusa Komal	
1	2	3	4
a) iv	i	ii	iii
b) ii	iv	i	iii
c) ii	i	iv	iii
d) iv	iii	i	ii
- 5) In which techniques Ethidium Bromide is used
a) Polymerised chain reaction b) Southern Blotting Techniques
c) Agarose Gel Electrophoresis d) Western Blotting Techniques
- 6) Tectona grandis belongs to which family
a) Lamiaceae b) Fabaceae c) Dipterocarpaceae d) Ebeuaceae
- 7) Consumption of which one of the following foods Prevents the kind of blindness associated with Vitamin A deficiency?
a) Flavr Savr b) Canola c) Golden rice d) Bt Brinjal
- 8) Identify the correctly matched pair
a) Basal Convention - Biodiversity conservation
b) Kyoto protocol - Climate change
c) Montreal protocol - Global warming
d) Ramsar convention - Ground water pollution

Section - II**II. Answer any four of the following questions.****4x2=8**

- 9) What is endothecium?
- 10) What are the enzymes you can use to cut terminal end and internal phosphodiester bond of nuclotide sequence?
- 11) Pyramid of energy is always upright. Give reasons.
- 12) Differentiate primary introduction from secondary introduction.
- 13) What is co-evolution?
- 14) Define - Bonsai

Section - III**III. Answer any three of the following questions. Q.No. 19 is compulsory. 3x3=9**

- 15) List out the functions of tapetum
- 16) Give an account of cryopreservation
- 17) Draw the structure of thermal stratification
- 18) What is carbon capture and storage
- 19) Write short notes on Bio-monitoring

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Section - IV

IV. Answer all the questions.

2x5=10

- 20) a) Explain the incomplete dominance with example
(OR)
b) What is single cell protein? Mention its applications
- 21) a) Enumerate the anatomical adaptations of xerophytes
(OR)
b) What are the King and Queen of Spices? Write their uses.

Part - II (BIO-ZOOLOGY)

Marks: 35

Section - I

I. Choose the correct answer (Write the answer with option)

8x1=8

- 1) The primary host of Taenia solium is
- a) Man b) Water c) Pig d) House fly
- 2) Cryptorchism is observed in percentage of Male population
- a) 2 - 3 b) 1 - 2 c) 1 - 3 d) 1 - 4
- 3) HPV Vaccination of girls aged years
- a) 9 - 13 b) 8 - 13 c) 9 - 14 d) 7 - 13
- 4) ABO Blood group in Man controlled by
- a) Multiple allele b) Lethal gene c) Sex linked gene d) y-linked gene
- 5) Fossils are generally found in
- a) Igneous rocks b) Metamorphic rocks
c) Volcanic rocks d) Sedimentary rocks
- 6) Choose the correct match pair
- a) Amphetamines - Stimulant
b) LSD - Narcotic
c) Heroin - Psychotropic
d) Beuzodia Zepine - Painkiller
- 7) is the example of stenotherms
- a) cat b) dog c) tiger d) lizard
- 8) of Russia seems to be at higher risk of extinction because of habitat destruction
- a) Dodo b) Steller's Sea cow c) Amphibian d) Rabbit

Section - II

II. Answer any four of the following questions.

4x2=8

- 9) Differentiate Thelytoky and Amphitoky
- 10) What is LH Surge?
- 11) Give reason for Genetic code is Universal
- 12) Symptoms of Bubonic plague
- 13) What is meant by Acclimatization
- 14) Define Endemism

Section - III

III. Answer any three questions. Q.No. 19 is compulsory.

3x3=9

- 15) Differentiate somatic and Germline gene therapy?
- 16) Name the copper releasing IUD's and its role
- 17) Note on Ecosan toilet
- 18) What are DNA vaccine
- 19) Name the Hallucinogens drugs and its effects

Section - IV

IV. Answer the following.

2x5=10

- 20) a) Write a brief account about menstrual cycle
(OR)
b) Objection of Darwinism?
- 21) a) Uses of Transgenesis?
(OR)
b) Causes of Biodiversity loss?