

Tsi12Bio

Tenkasi District
First Revision Examination - 2024



24-01-2024

Time: 3.00 Hours

Standard 12
BIOLOGY
BIO-BOTANY (Mark : 35)
Part - I

Marks: 70

8x1=8**Choose the best answer**

- 1) The scar left by funiculus in the seed is
 - a) Tegmen
 - b) radicle
 - c) epicotyl
 - d) hilum
- 2) Extra nuclear inheritance is a consequence of presence of genes in
 - a) Mitochondria and chloroplast
 - b) Endoplasmic reticulum & mitochondria
 - c) Ribosome and chloroplast
 - d) Lysosomes and Ribosomes
- 3) In a fresh water environment like pond, rooted autotrophs are
 - a) Nymphaea and Typha
 - b) Ceratophyllum and utricularia
 - c) Wolffia and Pistia
 - d) Azolla and Lemna
- 4) Which of the following is not a sedimentary cycle.
 - a) Nitrogen cycle
 - b) Phosphorous cycle
 - c) Sulphur cycle
 - d) Calcium cycle
- 5) Find out the correctly matched pair
 - a) Rubber - Shorea robusta
 - b) Dye - Lawsonia inermis
 - c) Timber - Cyperus papyrus
 - d) Pulp - Hevea brasiliensis
- 6) In pBR 322, pBR stand for
 - a) Plasmid Bacterial Recombination
 - b) Plasmid Bacterial Reblication
 - c) Plasmid Boliver and Rodriquez
 - d) Plasmid Baltimore and rodriquez
- 7) Peoples movement for the protection of environment in Sirsi of Karnataka is
 - a) Chipko movement
 - b) Amirtha Devi Bishwas movement
 - c) Appiko movement
 - d) Albedo effect
- 8) Dwarfing gene of wheat is
 - a) Pal 1
 - b) Atomita 1
 - c) Norin 10
 - d) Pelita 2

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

- 9) Give the names of the scientists who rediscovered mendelism.
- 10) Write the role of Jasmine in perfuming
- 11) What is bio-remediation.
- 12) Draw a pyramid from following quantities of organisms.
Hawks - 50, Plants - 1000, Rabbit & Mouse 250 + 250, Pythons & Lizard 100 + 50
- 13) Define - Heterosis
- 14) What is pollenkit.

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

- 15) List out the functions of tapetum
- 16) Differentiate between missense mutation and non-sense mutation.
- 17) How do sacred groves help in the conservation of biodiversity
- 18) What is embryoids
- 19) What is Remote sensing.

Part - IV**2x5=10****Answer all questions.**

- 20) a) Mention the name of man-made cereal. How it is formed?
(OR)
b) What are the advantages of seed dispersal
- 21) a) With suitable diagram explain the structure of an Ovule.
(OR)
b) List out the new breeding techniques involved in developing new traits in plant breeding.

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BIO-ZOOLOGY (Mark : 35)**Section - I****8x1=8****i) Answer all the questions.****ii) Choose the correct answer and write the answer.**

- 1) Type of Syngamy found in Trichonympha is
 - a) Hologamy
 - b) Autogamy
 - c) Exogamy
 - d) Paedogamy
- 2) The process which the sperm undergoes before penetrating the ovum is
 - a) Spermiation
 - b) Cortical reaction
 - c) Spermatogenesis
 - d) Capacitation
- 3) ZW-ZZ system of sex determination occurs in
 - a) Fishes
 - b) Reptiles
 - c) Birds
 - d) All of these
- 4) When Lactose is present in the culture medium:
 - a) Transcription of lac y, lac z, lac a genes occurs
 - b) Repressor is unable to bind to the operator
 - c) Repressor is able to bind to the operator
 - d) Both (a) and (b) are correct
- 5) Modern man belongs to which period?
 - a) Quaternary
 - b) Cretaceous
 - c) Silurian
 - d) Cambrian
- 6) **Choose the correctly match pair**
 - a) Amphetamines - Stimulant
 - b) LSD - Narcotic
 - c) Heroin - Psychotropic
 - d) Benzodiazepine - Pain killer
- 7) Which of the following microorganism is used for production of citric acid in industries?
 - a) Lactobacillus bulgaris.
 - b) Pencillium citrinum
 - c) Aspergillus niger
 - d) Rhizopus nigricans
- 8) Which one of the following are at high risk extinction due to habitat destruction
 - a) Mammals
 - b) Birds
 - c) Amphibians
 - d) Echinoderms

Section - II**4x2=8****Answer any four of the followings:**

- 9) Which type of reproduction is effective - Asexual or Sexual and why?
- 10) Differentiate - Euchromatin and Hetrochromatin
- 11) What are the cells involved innate immune system?
- 12) What is genetically engineered Insulin?
- 13) Define Acclimatization.
- 14) What is SMOG?

Section - III**3x3=9****Answer any three of the followings:**

- 15) What is Surrogacy?
- 16) Write a short note on Patau's Syndrome.
- 17) What are the salient features of Mutation Theory?
- 18) What is Antibiotic Resistance? When does it develop?
- 19) Explain the three levels of biodiverstiy.

Section - IV**2x5=10****Answer all the questions:**

- 20) Explain the various phases of the menstrual cycle.
(OR)
- 21) Explain the genetic basis of ABO blood grouping in man.
- 22) Explain the structure of Thymus with a diagram.
(OR)
- 23) Explain the effects of Air Pollution.
