

V11Bio

Virudhunagar District
Common Quarterly Examination - 2024

Time: 3.00 Hours

Standard 11
BIOLOGY
PART - I (Bio-Botany)
Section - I

Marks: 70
Marks: 35**Note: i) Answer all the questions;****8x1=8****ii) Choose the correct answer and write it with their options.**

- 1) Match the disease with their causal organism and choose the correct sequence
- | | Disease |
|-----------------------------|---------------------------|
| I. Rust of wheat | - A. Virus |
| II. Sandal spike | - B. Bacteria |
| III. Blight disease in Rice | - C. Mycoplasma |
| IV. Rice Tungro disease | - D. Fungi |
| a) I-B, II-D, III-A, IV-C | b) I-D, II-A, III-B, IV-C |
| c) I-C, II-A, III-D, IV-B | d) I-D, II-C, III-B, IV-A |
- 2) The haploid number of chromosome in a Gymnosperm is 18, the number of chromosome in its endosperm would be
a) 36 b) 9 c) 18 d) 27
- 3) Aggregate fruit develops from
a) Whole inflorescence b) multicarpellary Apocarpous ovary.
c) multicarpellary ovary d) multicarpellary synearpous ovary
- 4) Which of the following is the correct statement?
a) In *Pisum sativum* leaflets modified into tendrils
b) In *Smilar* inflorescence axis is modified into tendrils
c) In *Nepenthes* midrib is modified into lid
d) In *Atlantia* terminal bud is modified into thorns
- 5) The taxonomy which involves similarities and dissimilarities among the immune system of different tax is termed as
a) numerical taxonomy b) chemotaxonomy
c) Molecular systematics d) serotaxonomy
- 6) **Choose the wrong statements**
i) Smooth ER are the site of protein synthesis
ii) Lysosomes involved in cell plate and cell wall formation
iii) Lampbrush chromosomes observed in the salivary glands of *Drosophila*
iv) Mitochondrial DNA is used to track and date recent evolutionary time
a) i, iv b) i, ii, iii c) ii, iii, iv d) iii, iv
- 7) Centromere is required for
a) Cytoplasmic cleavage b) movement of chromosomes towards pole
c) crossing over d) transcription
- 8) The net charge of zwitter ion is
a) Zero b) tively charged c) 100 Amp d) -ively charged

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

- 9) What is plectostele? Give an example
- 10) Write the floral formula for a flower with bract, regular, pentamerous, distinct calyx and corolla, superior ovary without Bracteole.
- 11) What are photosynthetic roots? Give example
- 12) What are the uses of molecular taxonomy?
- 13) Bring out the significance of Transmission Electron Microscope.
- 14) Distinguish between Nucleoside and Nucleotide

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

- 15) Why the cells are arrested in G1 phase without any division?
- 16) Draw and label; ultra structure of a plant cell
- 17) What are lianas?
- 18) Mention the living characters of the virus
- 19) Do you think that shape of chloroplast is unique for algae - Justify your answer

V11Bio

2

Section - IV

Answer all the following.

2x5=10

- 20) a) Explain the steps involved in Gram staining of bacteria
(OR)
b) What is aestivation? Explain the types .
- 21) a) Write the botanical description of Datura metal
(OR)
b) Differentiate between mitosis and meiosis.

PART - II (Bio-Zoology)

Marks: 35

Section - I

I. Write correct answer

8x1=8

- 1) A group of organisms having similar traits of a rank is
a) species b) Taxan c) Genus d) Family
- 2) The limbless amphibian is
a) Ichthyophir b) Snake c) Scorpion d) Scalamander
- 3) Sea anemone belongs to phylum
a) protozoa b) porifera c) coelenterata d) Echinodermata
- 4) Vital capacity is
a) TV + IRV b) TV + ERN c) RV + ERN d) TV + TRV + ERV
- 5) What type of fibres are found in connective tissues matrix
a) collagen b) areolar c) cartilage d) tubular
- 6) Kidney of frog is
a) Archinephros b) pronephros c) mesonephros d) metanephros
- 7) Which of the following is not the function of liver?
a) production of Insuline b) Detorification
c) storage of glycogen d) production of bile
- 8) What is the function of lymph?
a) Transport of O₂ into brain b) Transport of CO₂ into lungs
c) Bring interstitial fluid in blood d) Bring RBC and WBC in lymph node

Section - II

II. Answer any four questions

4x2=8

- 9) What is the role of Charles Darwin in relation to concept of species?
10) In which phyla is the larva trochophore found?
11) Comment on the functions of alary muscle?
12) What is lymph? Write its function
13) What might be the affecton a person whose diet has less iron content?
14) Write the types of teeth and their formula

III. Answer any three questions. Write 19 the question answer compulsory. 3x3=9

- 15) Differentiate between elastic fibres and elastic connective tissue
16) Why are Villi present in intestine and not in the stomach?
17) Why is pneumonia considered a dangerous disease?
18) Distinguish between open and closed circulation.
19) Write notes on Antigen and antibody types present in human blood.

IV. Answer the following

2x5=10

- 20) Write notes on Rules of Nomenclature?
(OR)
What is an epithelium? Enumerate the characteristic features of any four.
- 21) What are the events in inspiration and expiration
(OR)
Describe the machanism by which the human heart beat is initiated and controlled
