



26.02.2024

Time: 3.00 Hours

Standard 11 BIOLOGY

Part - I (Bio-Botany)

Marks: 70

Marks: 35

8x1=8

- I) Answer all the questions
- ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer
- 1) Methano bacterium belongs to the type of
 - a) Arche bacterium
 - b) Cyanobacterium
 - c) Mycobacterium
 - d) Bacteriophages
 - 2) Which part of the *Pisum sativum* becomes tendril?
 - a) Leaf tip
 - b) Shoot tip
 - c) Leaflets
 - d) Stipules
 - 3) Which part of *Cicer* plant has filamentous micro organisms?
 - a) Root tip
 - b) Root hairs
 - c) Lateral roots
 - d) Root nodules
 - 4) Which part of the following is responsible for movement of chromosome towards pole?
 - a) Centromere
 - b) Centriole
 - c) Nucleus
 - d) Chromatid
 - 5) Protoxylem located outside the metaxylem is called
 - a) Endarch
 - b) Exarch
 - c) Mesarch
 - d) Polyarch
 - 6) The following experiment is based on
 - a) Translocation of food due to TP gradient and imbibitions force
 - b) Translocation of food due to TP
 - c) Translocation of food due to imbibition force
 - d) None of the above
 - 7) Formation of $NADH + H^+$ done by
 - a) PS I and PS II
 - b) PS I only
 - c) PS II only
 - d) None of the above
 - 8) Zeatin is derived from
 - a) Corn
 - b) Maize
 - c) Paddy
 - d) Wheat



Part - II

- II. Answer any 4 from the following. 4x2=8
- 9) Write the merits of Five kingdom system of classification.
 - 10) Write the different shapes of chloroplast in algae. Wriet suitable examples
 - 11) Aggregate fruit and composite fruit - Differentiate
 - 12) What is G0 phase?
 - 13) What is tRNA?
 - 14) Why sclerenchyma and xylem are considered as dead cells?

Part - III

- III. Answer any 3 from the following. Q.No.19 is compulsory. 3x3=9
- 15) Hypotonic, Hypertonic and Isotonic solutions - Define
 - 16) Write the role of nitrogenase enzyme in nitrogen fixation
 - 17) Write the overall equation of Respiration and Photosynthesis
 - 18) Write the economic importance of Gymnosperms.
 - 19) List any three of the human bacterial disease and their causing organisms.

Part - IV

- IV. Answer all the questions. 2x5=10
- 20) a) Differentiate C_3 and C_4 cycle.
(OR)
b) Draw labeled diagram of the C.S of Dicto leaf
 - 21) a) Explain the botanical description of *Datura metel*
(OR)
b) Write about the physiological effects of Auxin.

Section - 1

8x1=8

I. Answer all the questions

- 1) The limbless amphibian is
 - a) Ichthyophis
 - b) Hyla
 - c) Rana
 - d) Salamander
- 2) Molecular taxonomic tool consist of
 - a) DNA and RNA
 - b) mitochondria and Endoplasmic reticulum
 - c) cell wall and membrane proteins
 - d) All the above
- 3) Match the Column I with Column II and Choose the correct option

Column I	Column II
P) Lipase	i) Starch
Q) Pepsin	ii) Cassein
R) Renin	iii) Protein
S) Ptyalin	iv) Lipid

 - a) P - iv, Q - ii, R - i, S - iii
 - b) P - iii, Q - iv, R - ii, S - i
 - c) P - iv, Q - iii, R - ii, S - i
 - d) p - iii, Q - ii, R - iv, S - i
- 4) Erythroblastosis Foetalis is due to the destruction of
 - a) Foetal WBCs
 - b) Foetal RBCs
 - c) Foetus Suffers from minamata
 - d) Foetus suffers from atherosclerosis
- 5) Muscles are derived from
 - a) endoderm
 - b) ectoderm
 - c) Neuroectoderm
 - d) Mesoderm
- 6) Which part of the human brain is concerned with the regulation of body temperature?
 - a) Medulla oblongata
 - b) Cerebellum
 - c) Hypothalamus
 - d) Cerebrum
- 7) is required for the formation of thyroxine
 - a) Calcium
 - b) Sodium
 - c) Iodine
 - d) Potassium
- 8) Choose the correctly matched pair
 - 1) Egg layers - Brahma
 - 2) Broiler types - Leghorn
 - 3) Dual purpose - White plymouth rock
 - 4) Ornamental breeds - Silkie

Section - 2

4x2=8

II. Answer any four questions

- 9) What is methaemoglobin?
- 10) Differentiate white adipose tissue from brown adipose tissue
- 11) Compare schizocoelom with enterocoelom
- 12) Write the peculiar characters of Duck
- 13) List out the different types of WBC
- 14) How is tetany caused?

Section - 3

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

- 15) Draw and label the L.S of human kidney
- 16) What is the difference between a zoo and wild life sanctuary?
- 17) What are the functions of skeletal system
- 18) Give the economic importance of silkworm
- 19) Differentiate unconditioned Reflex and conditional Reflex

Section - 4

IV. Answer all the questions.

2x5=10

- 20) a) Briefly explain the three fundamental distinct features of chordates with a neat labelled diagram
(OR)
- b) What is an epithelium? Enumerate the characteristic features of different epithelium
- 21) a) List the role of enzymes in small intestine
(OR)
- b) Tabulate the difference between Insulin and Glucagon

kindly send me your key Answers to our email id - padasalai.net@gmail.com