

**A.ANBU M.SC.,B.ED.,**

**pH: 8508429396**

**Vivek vidyalaya matric higher secondary school**

**Kinathukadavu**

Date: 18.02.2022

**Biology -(Botany) TEST NO 1**

**Section A**

**Marks : 35**

**I.Choose the correct answer.**

**8 X 1 = 8**

- 1.Father of Indian Mycology  
a) Micheli                      b) Butler                      c) Sadasivan                      d) Parthasarathy
- 2.----- Algae grow on the shells of molluscus  
a) Dunaliella Salina                      b) chlamydomonas nivalis  
c) Cladophora crispata                      d) Rhodymenia
- 3.Plants grow on sand called .....  
a) Mesophytes                      b) lithophytes                      c) Xerophytes                      d) Sammophytes
- 4.The largest and unbranched inflorescence are called  
a) Amorphophallus titanium                      b) corypha titanium  
c) corypha umbraculifera                      d)Rafflesia
- 5.----- is a vesselless angiospermic family  
a) Winteraceae                      b) lilliacae                      c) solanaceae                      d) febaceae
6. Transpiration is a necessary evil as stated by  
a) Vanden honert                      b) Clark                      c) Curtis                      d) Lloyd
7. How many ATP molecules are produced from one sucrose molecule ?  
a) 36                      b) 38                      c) 37                      d) 34
8. Example of short longday plants .....  
a) Pea                      b) Barley                      c) Wheat                      d) Oats

**II.Answer the following.**

**4 X 2 = 8**

- 9.Define capnophilic bacteria
10. Differentiate between eusporangiate and leptoangiate
- 11.Write any three flowers of land in tamil literature
- 12.What is plasticity?
- 13.What is respiratory quotient?
- 14.Write any three difference between early wood and late wood?

**III.Answer the following.Q:no19 compulsory**

**3 X 3 = 9**

- 15.What is meristele? and it's diagram?
- 16.What is phylloclade ?
- 17.Draw the floral diagram of Ixora coccinea
- 18.What is reverse osmosis?
- 19.Define saprophytic mode of nutrition in Angiosperms

**IV. Answer the following.****2 X 5 =10**

20.Explain Aestivation and it's types (or)

Briefly explain storage roots and it's types

21.a) Write about histogen theory regarding Root apical meristem ?

b) Write any three physiological effects of auxin? (or)

Draw the outline of Melvin-- Benson Cycle (Explanation no need)

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Date: 19.02.2022

**Biology -(Botany) TEST NO 2****Section A****Marks : 35****I.Choose the correct answer.****8 X 1 = 8**

1.Which bacteria converts ammonia in to nitrate salt

(a) Aceto bacteria (b) Rizobium (c) Nitrosomonas (d) Lacto bacillus

2.Senescence of detached leaves can be delayed by the use of

(a) Auxin (b) Giberellin (c) Cytokinin (d) Ethylene

3..The symbiotic association found between algae and fungi is

(a) Mycorrhizae (b) Lichens (c) Saprophytes (d) Parasites

4.Match the following

unifoliate - zornia

bifoliate - bombax

trifoliate - citrus

multifoliate - aegle

5.Match the following

auxin - dwarf pea

gibberellins - rice coleoptiles

cytikiinin - avena curvature

abscisic acid -neem cotyledon

6.Match the following

TMV shape - 2130

Bacteriophage - rod shape

TMV -todpole

Bacteriophage - 2000

7.Khaira disease of rice deficiency of

a) molybdenum (b)zinc (c) boron (d) chlorine

8. seed coat not thin membranous in

- a) coconut    b) groundnut    c) gram    d) maize

**II. Answer the following.**

**4 X 2 = 8**

9. What is retting of fibres ? 10. Define heterophylly

11. Write any two significance of molecular taxonomy

12. Write the components of Endoplasmic reticulum?

13. What is guttation ? Give an example?

14. Write any three properties of light

**III. Answer the following. Q: no 19 compulsory**

**3 X 3 = 9**

15. What is pinocytosis? 16. Differentiate between 70S and 80S Ribosomes

17. Write any three properties of enzyme?

18. Differentiate between PS I and PS II

**19. What is lacunar collenchyma and its diagram?**

**IV. Answer the following.**

**2 X 5 = 10**

20. Explain different types of type concept (or) Write the important functions of suicidal bags

21. Give a brief account on Programmed cell death (PCD) (or)

Difference between C3 and C4 Cycle

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Date: 21.02.2022

**Biology -(Botany) TEST NO 3**

**Section A**

**Marks : 35**

**I. Choose the correct answer.**

**8 X 1 = 8**

1. Who coined the term bacteriophage

- a) F.W. Twort    b) M.W. Beijerinck    c) D. Herelle    d) Adolf Mayer

2. Suitable example for branched filamentous algae

- a) Coleochaete    b) Chlorella    c) Chlamydomonas    d) Cladophora

3. Clock wise coiling climbers are called dextrose

- a) Dioscorea alata    b) Dioscorea bulbifera    c) Centella    d) Oxalis

4. Who is Father of DNA barcoding..

- a) Smith    b) Paul Hebert    c) Karl Prantel    d) Bentham and Hooker

5. Lambrush chromosome occurs at the diplotene stage of .....

- a) C.G. Balbiani    b) Flemming    c) Waldeyer    d) Bridges

6. Vessels found in ..... gymnosperms

- a) Cycus    b) Pinus    c) Welwitschia    d) Winteraceae

7. Xylem vessels work like a capillary tube said by..  
 a) Unger and Sachs                      b) Boehm      c) j.c bose      d) Strasburger
8. The respiration coined by ...  
 a) Blackman      b) Karl lohman      c) pepys                      d) lipman

**II. Answer the following.****4 X 2 = 8**

9. What is apical dominance?  
 10. Write any two significance of CAM cycle?  
 11. What is exosmosis ?  
 12. What are the anatomical difference between monocotyledons and dicotyledons?  
 13. What is phyllode?  
 14. Write any two uses of herbarium ?

**III. Answer the following. Q: no 19 compulsory****3 X 3 = 9**

15. Draw the structure of Nucleus?  
 16. Difference between karyokinesis and cytokinesis  
 17. What is tyloses ?  
 18. Define leghaemoglobin  
**19. Write any three properties of light ?**

**IV. Answer the following.****2 X 5 = 10**

20. Draw the flow chart of EMP pathway (or)  
 Explain much mass flow hypothesis.
21. Explain types of seed and its significance (or)  
 Briefly explain Night shade family

***Vivek vidyalaya matric hr sec school ,Kinathukadavu.*****Biology (Botany) TEST NO 4****Section A****Marks : 35****I. Choose the correct answer.****8 X 1 = 8**

1. .... is a legendary role model for women in science  
 a) Hofmeister    b) Nehemiah grew    c) Katherine Esau                      d) Nageli
2. Rate of transpiration in sunflower....  
 a) 200 liters      b) 2 liters                      c) 6 liters                      d) 5 liters
3. Calcium deficiency disease is called .....  
 a) Black heart and celery                      b) little leaf and mottle leaf  
 b) c) whip tail disease                      d) kahaira disease
4. Emerson conducted test in .....

- a) Chlorella      b) chlamydomonas                      c) ulva              d) Chara
5. Preteen is single cell protein derived from ....
- a) Agrobacterium tumefaciens    b) Methylophilus  
c) Thermus                                      d) Methanobacterium
6. Photosynthetic Root found in .....
- a) Tinospora    b) vitis                      c) cissus      d) neptunia
7. Herbarium is largest and mycological collections in the world .....
- a) Russia                      b) U.S.A      c) Kew              d) Paris
8. Compound microscope invented by .....
- a) Z.jansen      b) Zernike    c) Z.sigmondy      d) Ernest ruska

**II. Answer the following.****4 X 2 = 8**

9. Draw the diagram of Ribosomes.
10. Difference between mitosis in plants and animals
11. Write any two economic importance of algae ?
12. What is annual rings ?
13. Difference between cohesion and adhesive ?
14. What are the parameters used to measure the plants ?

**III. Answer the following. Q: no 19 compulsory****3 X 3 = 9**

- 15 Draw the floral diagram of cocos nucifera .
16. Difference between monopodial and symppdial branching?
17. Define chlamydospore and oidia .
18. Write short notes about Drosera ?
- 19. Write any three difference between photosynthetic plants and photosynthetic bacteria?**

**IV. Answer the following.****2 X 5 = 10**

- 20 Give general account on lichens ( or)  
Explain botanical description of Allium cepa
21. Explain photosynthetic carbon oxidation cycle? (or) Distinguish the anatomy of dicot root from monocot root ?

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**REVISION EXAMINATION- 2021-2022.****XI STANDARD****Date: 22-04-22****Max. Marks: 70**

Subject : BIOLOGY

Time: 2.30 Hrs.

## SECTION – A (BIO-BOTANY)

## I. Choose the correct answer:

8x1=8

- Which one of the following is not the characteristic feature of cyanobacteria?
  - they are multicellular
  - they form colonies
  - they form blooms in polluted water bodies
  - they can fix atmospheric nitrogen
- Which one of the following is considered important in the development of seed habit?
  - Heterospory
  - Haplontic life cycle
  - Free living gametophyte
  - Dependent sporophyte
- When the storage roots occur in clusters from the base of the stem, they are called
  - Fasiculated roots
  - Nodulated roots
  - Annulated roots
  - Beaded root
- Cambium is present between xylem and phloem called
  - open
  - closed
  - Collateral
  - Radial
- Regarding flip-flop movement, which one of the following statements is correct?
  - Proteins can flip-flop, lipids cannot
  - Neither lipids nor proteins can flip-flop
  - Both lipids and proteins can flip-flop
  - Lipids can rarely flip-flop, proteins cannot
- Significance of meiosis is associated with
  - DNA duplication
  - Asexual reproduction
  - Sexual reproduction
  - Growth
- Leghaemoglobin is
  - Oxygen scavenger in BGA
  - Oxygen scavenger in Rhizobium
  - Oxygen scavenger in Legume
  - Oxygen scavenger in nitrogen fixer
- Which of the main amino acid from which other amino acid are synthesized?
  - Glutamic acid
  - Valine
  - Cysteine
  - Methonine

## II. Answer any four of the following questions:

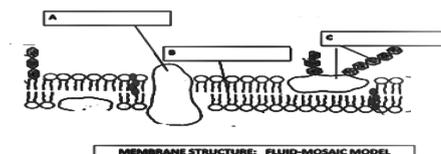
4x2=8

- Monosaccharides are called 'reducing sugars' but disaccharides are not. Why?
- What is the importance of Mycorrhizae?
- Which common plant part has been transformed into the following different modifications.
  - Pitcher of Nepenthes
  - Phyllode of Acacia
- Name the two phases of cell cycle which lasts for longest and shortest span of hours.
- Monosaccharides are called 'reducing sugars' but disaccharides are not. Why?
- What is anthocyanin?

## III. Answer any Three (Q. No. 19 is Compulsary)

3x3=9

- Mark the A, B, C parts for given diagram



- Discuss in detail about the physical properties of protoplasm.
- Write any three distinguishing features between accessory and reproductive organs of flowers.
- Describe biological nitrogen fixation with reference to Rhizobium and Legume.
- Compare the three classes of algae on the basis of the following parameters: a. Major

pigment      b. Stored food

**IV. Answer any Two of the following questions:**

**2x5=10**

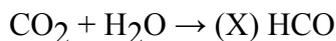
20. a. Give a concise account on virulent cycle of a phage. (or)  
b. Explain the regions of positively geotropic part of the plant.
21. a. At the end of a cell division, a cell produces four cells. Identify the type of cell division and mention its significance in evolution.  
(or)  
b. Identify the family of the plant *Pisum Sativum*. Write the diagnostic features based on (a) Calyx (b) Corolla (c) Androecium (d) Gynoecium (e) Fruit

**SECTION – B (BIO- ZOOLOGY)**

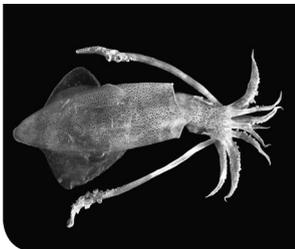
**I. Choose the correct answer:**

**8x1= 8**

- Molecular taxonomic tool consists of  
a. DNA and RNA    b. Mitochondria and ER  
c. Cell wall and membrane protein    d. All the above
- Lateral line sense organs is seen  
a. salamander    b) frog    c. water snake    d) fish
- Select the wrongly matched pair  
a. Exocrine gland – Salivary gland    b. Endocrine gland – Hormones  
c. Bones – Adipose tissue    d. Blood – Fluid connective tissue
- Kidney of frog is  
a. Archinephric (b) pronephric (c) mesonephric (d) metanephric
- Which one of the following is incorrectly matched?  
a. Succus entericus–Intestine    b. Renin - Kidney  
c. Rennin – Stomach    d. Ptyalin - Mouth
- The plasma proteins involved in the coagulation of blood is  
a. globulin (b) fibrinogen (c) albumin (d) globin
- Write the name of the enzyme involved in the given reaction at X



8. Write the name of the animal in the given diagram



**II. Answer any four of the following questions:**

**4x2=8**

- Expand the abbreviations DAISY and ABIS
- Compare schizocoelomate with enterocoelomate?
- List any two characteristics of Hemichordate.
- How emphysema occur?

13. Write the significance of the followings.    i. Microvilli    ii. Goblet cells.  
14. State the deficiency disease caused by less intake of iron in our diet?

**III. Answer any Three (Q. No. 19 is Compulsory)**

**3x3=9**

15. List out the diagnostic features of phylum Ctenophora.  
16. Write the systematic positions of cockroach and frog.  
17. Construct a cladogram with the given examples.  
(Catfish, Frog, Crocodile, Crow, Rabbit and Monkey)  
18. Tabulate the agglutinogens and agglutinins present in the different groups of human blood.  
19. Explain the different types of salivary gland in human and the role of saliva in digestion.

**IV. Answer any Two of the following questions:**

**2x5=10**

20. A. How do you distinguish shark fish from cat fish?  
(or)  
B. i. Write down the common features of connective tissues on the basis of structure and function.    ii. Differentiate bones from cartilage.
21. A. i. Write an account on protein energy malnutrition.  
ii. Add a note on role of pancreatic enzymes in protein digestion  
(or)  
B. i. Write a note on respiratory pigments.    ii. What are the components involved in Coagulation of blood?