

# Padasalai<sup>9</sup>S Telegram Groups!

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- Padasalai's Channel Group <a href="https://t.me/padasalaichannel">https://t.me/padasalaichannel</a>
- Lesson Plan Group https://t.me/joinchat/NIfCqVWwo5iL-21gpzrXLw
- 12th Standard Group https://t.me/Padasalai 12th
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## STD: XI BIO-BOTANY

# **LESSION -1 LIVING WORLD**

# 2 OR 3 MARKS

- 2. What are the types of reproduction in living organism -2
- 3. What is Homeostasis? -3
- 4. Different between Anabolism and catabolism -3
- 5. What is cyclosis? -4
- 6. What are the living characters of viruses? -5
- 7. What are the non living characters of viruses? 5
- 8. Draw a diagram and label the parts of TMV. -5
- 9. Draw a diagram and label the parts of T4 bacteria phage. -5
- 10. Define virion. -8
- 11. Define viroid -8
- 12. Define virusoids. -8
- 13. Define prions -9
- 14. Any three viral disease in plants/ Animals 9
- 17. Why need classification? -10
- 18. Define chromista.
- 19. Draw a diagram and label the parts of (ultra structure )Bacteria a cell -15
- 20. What is plasmid? -16
- 21. What is capnophilic baceteria? 19
- 22. What is retting?-24
- 23. What is archaebacteria? -25
- 24. What is Heterocycts? 27
- 25. Write about four class of fungi? -31
- 26. Define powdery mildews? 33
- 27. Define ascocarp? 33
- 28. Draw diagram perithecium and apothecium. 33
- 29. Define club fungi -34
- 30. What are the conidia produce special structure? 34
- 32. Any three fungal disease of plants -36
- 33. Define mycorrhizae. 37
- 34. What is Lichens 38
- 35. write the difference between Homoiomerous and Heteromerous -38
- 36. Write about habitat and classification of lichen.-38

## Five marks

- 1. Explain T4 Bacteriophage? -7
- 2. Explain TMV -6
- 3. Explain lytic cycle -7

- 4. Explain lysogenic cycle − 8
- 5.Explain five kingdom system of classification merits and demerits? -9-11
- 6. Different between gram positive and gram negative in bacteria 18
- 7. Explain bacterial conjugation 20-21

What are the steps involved in bacterial staining method.

- 8. Explain bacterial Transformation or Griffith experiment -21
- 9. Economic importance of bacteria . -23
- 10. Salient features of Cynobacteria 26
- 11. Explain methods of reproduction of Fungi -30
- 12. Explain Lichen classification and economic importance -38
- 13. Economic importance of Fungi -35

# **LESSION -2 PLANT KINGDOM**

# 2 OR 3 MARKS

- 1. Define photosynthesis? 42
- 2. What is alternation of generation 44
- 3. Define Haplontic life cycle -44
- 4. Define Diplontic life cycle -44
- 5. What is Haplodiplontic life cycle 44
- 6. Who was the some Indian algologists -45
- 7. What are the 11 class of algae 48
- 8. Explain various types of chloroplast found in algae-48
- 9. Define Agar Agar -50
- 10. Define Gemmae 51
- 11. What are the three class of Bryophytes 52
- 12. What are five subdivision of pteridophytes 54
- 13. Define Protostele 55
- 14. Define Sipnostele 55
- 15. Define Solenostele 55
- 16. Draw the diagram of various types of stele 56
- 17. Define monoxylic and pycnoxylic -56
- 18. Some of the fossil rich sites of India -58-59
- 24. Bryophytes is amphibians why? 50 -51
- 25. Different between anatomical feature of dicot and monocot plants.-60
- 26. Define prothallus -61
- 27. What is pyrenodis -48
- 28. What is Akinetes 47
- 29. How are the gymnosperms classification -57
- 30. What is Amber? Which group of member produce in Amber 56.
- 31. What are the corolloid root?
- 32. Deferent between microsporophyll and megasporophyll -57

## Five marks

- 1. Economic importance of Algae. 50
- 2. What are general character of Algae 45
- 3. Economic importance of Bryophytes 52
- 4. General character of pteridophytes 53
- 5. Economic importance of pteridophytes -54
- 6. Explain types of stele -55
- 7. General character of Gymnosperm 56
- 8. Different between Gymnosperm and Angiosperm -57
- 9. Economic importance of Gymnosperm 58
- 10. What are the sailent features of Angiosperm -59

## LESSION -3 VEGETATIVE MORPHOLOGY

## 2 OR 3 MARKS

- 1. What is Geophytes give an example? 64
- 2. What is Liana example -64
- 3. What is Psammophytes give an example -64
- 4. Different between monocarphic and polycarphic -65
- 5. What is root caps? 66
- 6. Draw the diagram and label the parts of Regions of root cap -66
- 7. What is breathing root give an example -68
- 8. What Butteress root example -69
- 9. Define Epiphytes root or Velamen root -69
- 10. What is assimilation roots -70
- 11. What is Sucking root or Haustorial roots 70
- 12. What is phylloclade give an example 73
- 13. What is Cladode? Give an example -74
- 14. Define Pulvinus? -76
- 15. Describe pitcher plant -83
- 16. What is dorsal and ventral Leaf? ex
- 17. What Isobilateral leaf example
- 18. What are the secondary function of leaf -76

# **FIVE MARKS**

- 1. Explain taproot modification
- 2. Explain adventitious root modification
- 3. Explain sub aerial stem modification

# **LESSION -4 REPRODUCTIVE MORPHOLOGY**

#### 2 OR 3 MARKS

- 1. Different between racemose and cymose -89
- 2. What is Ament? -90
- 3. Describe spadix inflorescence -90
- 4. Describe Umbel with in example 91
- 5. Define Hermaphroditic, monoecious, dioecius, polygamous.
- 6. Describe papilionaceous or vexillum -100
- 7. What is epipelaous stem give an example -104
- 8. Different between Apocarpous and syncarpous 107
- 9. Gynandrophore or Androgynophore 109
- 10. floral formula in name is 113
- 11. What is pomology? -114
- 12. What is Balausta fruit example -115
- 13. What is aggregate fruit give an example -117
- 14. What is pollinium?

# **FIVE MARKS**

- 1. Explain different types of placentation 111
- 2. Different between aggregate fruit and multiple fruit -117 118
- 3. Explain different types of fleshy fruit with sutable example -114,115
- 4. Explain special type of inflorescence.

# LESSION - 5 TAXONOMY AND SYSTEMATIC BOTANY

# 2 OR 3 MARKS

- 1. Different between Taxonomy and systematic -125
- 2. What are the systematic hierarchy -125
- 3. What is binomial name -129
- 4. What is Author citation 129
- 5. Define Herbarium 133
- 6. Need for classification 137
- 7. What are aims of chemotaxonomy -144
- 8. What are aims of biosystematic -144
- 9. What is karyotaxonomy- 144
- 10. What is Serotaxonomy 144
- 11. Define DNA Barcoading 146
- 12. What is Cladistic -147
- 13. Systematic position of Fabaceae 148
- 14. Systematic position of Solanaceae 154
- 15. Systematic position of Liliaceae -159
- 16. What is Atropine? 157
- 17. What is Stramonium -157

NOTE: SYSTEMATIC POSITION OF ALL THE FAMILY YOU STUDY(PURE SCIENCE)

#### **FIVE MARKS**

- 1. Write about ICN principle 127
- 2. Explain different nomenclatural types 129
- 3. What are role of botanical garden 133
- 4. What the uses of herbarium 135
- 5. Outline for Benthum and Hookers classification 139
- 8. Botanical description and Economic important of all the family.

# **LESSION - 6 THE UNIT OF LIFE**

# 2 OR 3 MARKS

- 1. What are the two kinds of electron microscope -172
- 2. What is Glyoxcalyx -182
- 3. Define prokaryotes -176
- 4. Define mesokaryotes 177
- 5. Define eukaryotes 177
- 6. Draw and label the parts of cell membrane 182
- 7. What is phagocytosis and pinocytosis -184
- 8. What is cytoplasmic stremming -184
- 9. Different between chloroplast and leucoplast -187
- 10. What is Heterochromatin 192
- 11. Describe microbodies 190
- 14. types of chromosome based on centromere 193
- 15. Draw and label the structure of mitochondria 186
- 16. Draw and label the parts of chloroplast 188

# **FIVEMARKS**

- 1. Explain phase contrast microscope -188
- 2. Physical properties of protoplasm -175
- 3. Different between prokaryotic and eukaryotic -177
- 4. Draw the diagram and label the parts of Plant Cell 179
- 5. Different between plant cell and animal cell -180
- 6. Explain cell principle or cell Doctrine 174
- 9. Explain structure of chromosome 192
- 10. Explain special type of chromosome.

# **LESSION -7 THE UNIT OF LIFE**

## 2 OR 3 MARKS

- 1. What is the role of Nucleus -202
- 2. What is cytokinesis 203
- 4. What is G0 phase -204

- 5. What is Karyokinesis -205
- 6. What is closed mitosis -206
- 7. Significance of meiosis -212
- 8. What is mitogen -213
- 9. What is Endomitosis -213
- 10. What is Anastral -213
- 11. What is Amphiastral -213

# **FIVE MARKS**

- 1.Explain cell cycle -203
- 2. Explain Mitosis 206
- 3. Explain meiosis Prophase I 210
- 4. Significance of mitosis
- 5. Different between mitosis and meiosis

# LESSION – 8 Biomolecules

## 2 OR 3 MARKS

- 1. Write about properties of water 219
- 2. What is primary and secondary metabolites -220
- 3. What is monosaccharides with an example -221
- 4. What is disaccharides with an example -222
- 5. What is polysaccharides with an example and types -222
- 6. Define Amylose and Amylopectin -222
- 7. Define Hydrogen bond 231
- 8. Define Ionic bond -231
- 9. Define disulfide bond 232
- 10. Define Hydrophobic bond -231
- 11. What is Nucleoside and Nucleotide -238
- 12. Draw a structure of DNA 242
- 13. Draw a diagram of tRNA 243
- 14. Draw a basic component of DNA and RNA 240
- 15. Write about properties of Enzyme 232

# **FIVE Marks**

- 1. Explain types of polysaccharides
- 2. Explain structure of protein 230
- 3. Explain factors affecting of Enzyme -234
- 4. Write about classification of Enzyme -237
- 5. Explain structure of DNA 240
- 6. Explain DNA features -241
- 7. Write about RNA types. -243