

XI STD - BIO BOTANY IMPORTANT QUESTIONS.

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LESSON 1.

1. Multiplication of phages. 2. Virion, Viroid, Virusoids and prions 3. Five kingdom classification 4. Steps involved in Gram staining 5. Difference between Gram positive and Gram negative bacteria. 6. Capnophilic bacteria. 7. Archaeobacteria, cyanobacteria, mycoplasma, actinomycetes. 8. General characters of fungi 9. Mycorrhizae 10. Lichens

LESSON 2.

1. General characters of algae, bryophytes, pteridophytes and gymnosperms.
2. Alternation of generation.
3. List out classification of algae.
4. Chlorophyceae, phaeophyceae and Rhodophyceae.
5. **Types of stele**
6. Difference between gymnosperms and angiosperms.
7. Fossil plants

LESSON 3.

1. Characteristic features of root, stem and leaf.
2. Modification of root, stem and leaf.
3. Phyllotaxy
4. Leaf duration

LESSON 4.

1. Cauliflorous
2. Racemose, cymose, mixed and special types of inflorescence.
3. Polygamous.
4. Actinomorphic and zygomorphic.
5. Monadelphous, diadelphous, polydelphous, syngenesious, synandrous.
6. Ovary position
7. **Placentation**

LESSON 5.

1. Differences between Taxonomy and systematics.
2. Species.
3. Binomial.
4. Uses of molecular taxonomy
5. **Bentham and Hooker system of classification**
6. Simplified version of APG IV.
7. Molecular markers.
8. Cladistics and DNA barcoding.
9. Fabaceae, solanaceae, liliaceae.

LESSON 6.

1. Compound and electron microscope
2. Protoplasm theory
3. **Cell theory**
4. **Difference- prokaryotes and Eukaryotes Plant cell and animal cell**
5. Functions of cell wall and nucleus.
6. **Structure of chromosome. ###**
7. Special types of chromosome.
8. Types of chromosomes.

LESSON 7.

1. **Cell cycle. 2. Mitosis and Meiosis. 3. Significance of mitosis and meiosis. 4. Difference between mitosis and meiosis.**

LESSON 8.

1. flow chart- carbohydrates.
2. Test for starch, reducing sugar, protein and lipid.
3. **Zwitterion and amphoteric.**
4. **Structure of protein.**
5. Protein bonding.
6. Properties of enzyme, DNA.
7. Lock and key mechanism of enzyme.
8. Inhibitor of enzyme.
9. Difference between DNA and RNA.
10. **Types of RNA.**
11. **APO ENZYME / HOLO ENZYME .**

LESSON 9.

1. Histogen theory and Quiescent centre concept.
2. Parenchyma, **collenchyma** and sclerenchyma.
3. Xylem and phloem.
4. **Callose.**
5. **Vascular tissue system.**
6. Functions of epidermal tissue system.
7. bulliform cells or motor cells
8. structure of stomata

LESSON 10.

1. Annual ring or growth ring .
2. Porous and non porous wood.
3. Heart and sap wood
4. Early and late wood
5. **Tyloses, lenticels.**

LESSON 11.

1. **Diffusion, imbibition.**
2. Water potential.
3. Osmosis.

4. Plasmolysis.
5. Demonstration of osmosis.
- ## Diffusion pressure deficit**
6. Transpiration pull theory.
7. Apoplast, symplast and transmembrane. 8. Transpiration and guttation.
9. Phloem loading and unloading.
10. Donnan equilibrium.
11. Guttation
12. source and sink

LESSON 12.

1. Macro and micro nutrients.
2. Hydroponics and aeroponics.
3. Nitrogen fixation.
4. **Nitrogen cycle.**

LESSON 13.

1. Photosynthetic pigments.
2. Red drop effect.
3. Difference- cyclic and non cyclic photophosphorylation.
4. **C3 and c4 plants cycle and difference.**
5. Dark reaction- chart.
6. **Photolysis of water.##**
7. Photorespiration.

LESSON 14.

1. **Glycolysis and kreb cycle chart.**
2. Electron transport chain.
3. Fermentation.
4. Significance of pentose phosphate pathway.
5. **Compensation point**
6. Amphibolic pathway.
7. C2 Cycle and its significance

LESSON 15.

1. Sigmoid growth curve.
2. Physiological effects of auxin, gibberellin, cytokinin, ethylene and ABA.
3. Measurement of growth.
4. Apical dominance, bolting, Richmond lang effect.
5. Photoperiodism
6. Vernalization.

BIO ZOOLOGY

IMPORTANT QUESTIONS.

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LESSON 1

1.What is the difference between a Zoo and wild life sanctuary?

July, 2017, a 9 years old boy discovered a new Freshwater species of Jellyfish in the Kodaikanal lake, Tamilnadu.

LESSON 2

1.What are stinging cells or cnidoblasts?

2.Differentiate Polyp and Medusa

3.Differentiate Chordates and non- chordates

4.What is coelom?

5.What's is the difference between Diplo and triploblastic animals

LESSON 3

1.Differentiate white adipose tissue from brown adipose tissue.

2.Differentiate Biopsy and Autopsy.

3.Differentiate Tendons and Ligaments

4.Stratified epithelia are "built" for protection or to resist abrasion. What are the simple epithelia better at?

Ans :The simple epithelium is found in the organs of absorption, secretion and filtration.

5.Differentiate between loose connective tissue and dense connective tissue

6.Sticker syndrome

7.Ehler's -Danlos syndrome

8.Rhabdomyosarcoma

LESSON 4

1.How does the male frog attracts the female for mating?

2.Differentiate Male and female frog

3.What are the uses of food?

4.What is gastro oesophagus reflex disorder?

5.Classification of frog and earthworm

5.Why three chambered heart of frog is not as efficient as the four chambered heart of birds and mammals?

Solution : In a frog, the heart is three chambered. There is a single ventricle and the oxygenated and deoxygenated blood get mixed before being pumped out of the heart.
 In the Mammalian heart, the oxygenated and deoxygenated blood are clearly demarcated and no mixing takes place.

LESSON 5

1.What is vomiting?

2 Write a note on BMI. What is obesity?

3.What is appendicitis?

4. Define GERD

5.What is haustra?

6.Short notes about liver

7.What is egestion and defecation

LESSON 6

1.WHAT IS SURFACTANT?

2.What is Bohr effect?

3.What is Haldane effect

4.What is dead space?

5.Why do some people snore?

6.What is respiration?

7.Breathing through nose is healthier than through mouth– Why?

8.Write short note on respiratory volumes.

9.Explain the transport of carbon dioxide

10.Any 3 respiratory functions

On an average, a healthy human breathes 12–16 times/minute. An instrument called Spirometer is used to measure the volume of air

LESSON 7

1.What is haematocrit?

2.Differentiate blood groups

3.Granulocytes and agranulocytes

4.Angina pectoris /antheroma / 5.antherosclerosis

6.Define cardiac cycle/ ECG

7.Define embolism

LESSON 8

1.Differentiate cortical and juxta medullary nephrons

2.What is ornithine cycle?

3.Structure of nephron

4.Renin angiotensin 5 mark and 2 mark

5.Mechanism of urine

LESSON 9

1 Types of movement

2.Differentiate LMM AND HMM

3.Types of joints

4.Red muscle fibre and white muscle fibre

LESSON 10

1.Three types of neurons

2.Conditioned and unconstititional difference

3.Types of receptor

4.Differences between rod and cone cells

5.Organ of corti diagram

- 6.What is ampulla ? Ear
- 7.What is cataract
- 8.Meissner's corpuscles

LESSON 11

- 1.What's hormones
- 2 Functions of thyrocalcitonin

Old age people are sick often, why? Due to degeneration of thymus gland, thymosine level decreases, as a result the immunity of old age people becomes weak and causes sickness.

- 3.Zones of adrenal gland**
- 4.Mechanism of hormone action 5 mark

LESSON 12

- 1.Write any two scope of zoology
- 2.Types of silk and uses of silk ?**
- 3.What's cocoon or stifling or Reeling**
- 4.Importance of lac culture
- 5.What is hapas / isinglass
- 6.Animal husbandry 5 mark
- 7.Artificial insemination /advantages**

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