



BIOLOGY

BOOKS - VGS PUBLICATION-BRILLIANT

FINAL TOUCH MOST IMPORTANT QUESTIONS

The Living World Very Short Answer Type Questions

1. Which is the largest botanical garden in the world? Name a few well known botanical gardens in India.



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2. Give the scientific name of Mango. Identify the generic name and specific epithet.



1. What are taxonomical aids? Give the importance of herbaria and museums.



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Biological Classification Very Short Answer Type Questions

1. Find out what do the terms 'algal bloom' and 'red-tides' signify



2. Plants are autotrophic. Can you think of some plants that are partially heterotrophic?



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Biological Classification Short Answer Type Questions

1. Write the role of Fungi in our daily life.



Science Of Plants Botany Very Short Answer Type Questions

1. Name the books written Parasara and mention the important aspects discussed in those books.



- 2. Who is popularly known as father of Botany
- ? What was the book written by hIm?



3. Who are Herbalists? What are the books written by them?



4. What are the group of plants that live as symbionts in lichens ? Name the study of Lichens.



Plant Kingdom Very Short Answer Type Questions

1. What is the basic of classification of algae?



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2. Differentiate between syngamy and triple fusion.



Plant Kingdom Short Answer Type Questions

1. Give a brief account of Prothallus.



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Morphology Of Flowering Plants Very Short Answer Type Questions

1. What types of specialized roots are found in

Epiphytic plants? What is their function?



2. How is pinnately compound leaf different from palmately compound leaf?



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3. What type of Inflorescence is found in fig trees? Why does the insect Balstophaga visits the Inflorescence of fig tree?



4. What is the type of fruit found in mango? How does it differ from that of coconut?



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5. Name any two plants having single seeded dry fruits.



6. Define Schizocarpic dry fruits. Give an example.



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7. Define mericarp. In which plant you find it?



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8. What are aggregate fruits? Give two examples.



Morphology Of Flowering Plants Long Answer Type Questions

1. Explain different types of Racemos inflorescences.



Modes Of Reproduction Very Short Answer Type Questions

1. Why is the offspring formed by asexual reproduction referred to as clone?



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2. Define vivipary with an example.



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Modes Of Reproduction Short Answer Type Questions

1. 'Fertilisation is not an obligatory event for fruit production in certain plants". Explain the statement.



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Sexual Reproduction In Flowering Plants Very Short Answer Type Questions

1. What is self-incompatibility? Why does self-pollination not lead to seed formation in self-incompatible species?



2. How is pollination carried out in water plants?



Sexual Reproduction In Flowering Plants Short Answer Type Questions

1. What is apomixis? What is its importance?



Taxonomy Of Angiosperms Very Short Answer Type Questions

1. Explain the scope and significance of Numerical Taxonomy.



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2. Give the technical description of ovary in solanum nigrum.



Taxonomy Of Angiosperms Short Answer Type Questions

1. Give an account of Bentham and Hooker's classification of plants.



The Unit Of Life Very Short Answer Type Questions

1. What are gas vacuoles ? State their functions.



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2. What is the function of a polysome?



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The Unit Of Life Short Answer Type Questions

1. Comment on the cartwheel structure of centriole.



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2. What is endomembrane system? What cell organelles are not included in it? Why?



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Biomolecules Very Short Answer Type Questions

1. Medicines are either man made (i.e., synthetic) or obtained from living organisms like plants, bacteria, animals etc. and hence the latter are called 'natural products. Sometimes natural products are chemically altered by man to reduce toxicity or side effects. Write against each of the following whether they were initially obtained as a natural product or as a synthetic chemical. a) Penicillin b) Sulfonamide c) Vitamin C __. d) Growth Hormone ___



2. Glycine and Alanine are different with respect to one substituent on the alphacarbon. What are the other common substituent groups?



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Biomolecules Short Answer Type Questions

1. Nucleic acids exhibits secondary structure.

Justify with example



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Cell Cycle And Cell Division Very Short Answer
Type Questions

1. Which tissue of animals and plants exhibits meiosis ?



2. Given that the average duplication time of E.coli is 20 minutes. How much time will two E.coli cells take to become 32 cells?



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3. At what stage of cell cycle does DNA synthesis occur?



4. Mitochondria and plastids have their own DNA (genetic material). What is their fate during nuclear division like Mitosis



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Cell Cycle And Cell Division Short Answer Type **Questions**

1. How does cytokinesis in plant cells differ from that in animal cells?



Histology And Anatomy Of Flowering Plants Very Short Answer Type Questions

1. Why are xylem and phloem called complex tissues?



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2. What are the cells that make the leaves curl in paints during water stress? Give an

example.



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Histology And Anatomy Of Flowering Plants Long Answer Type Questions

1. What are complex tissues? Describe various types of complex tissues.



Ecological Adaptations Succession And Ecological Services Very Short Answer Type Questions

1. Among Bryophytes, lichens and ferns which one is a pioneer species in a xerarch succession.



2. Give any two examples of xerarch succession.



Ecological Adaptations Succession And Ecological Services Long Answer Type Questions

1. Define ecosystem/ecological services. Explain in brief with regard to pollination.



2. What measure do you suggest to protect the pollinators ?



Unit I Diversity Of Living Wordl Very Short **Answer Type Questions**

1. What is biogenesis?



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2. Define the term histology. What is this otherwise called?



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3. In a given area, remains of animals that lived in the remote past are excavated for study. Which branch of science is it called?



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4. What is trinomial nomenclature? Given an example.



5. What is meant by tautonomy? Give two examples.



6. Differentiate between Protostomia, and Deuterostomia.



7. ICZN stands for

8. What is ecological diversity? Mention the different types of ecological diversities.



9. Mention any two products of medicinal importance obtained from Nature.



10. Invasion of an Alien species leads to extinction of native species. Justify this with two examples.



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11. Write the full form of IUCN. In which book threatened species are enlisted.



Unit I Diversity Of Living Wordl Short Answer Type Questions

1. Define species. Explain the various aspects of 'species'.



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2. What is the 'evil quartet'?



3. Explain "Rivet Popper hypothesis".



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4. Write short notes on In-situ conservation.



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Unit Ii Structural Organisation In Animals Very Short Answer Type Questions **1.** What is tissue level of organisation among animals? Which metazoans do exhibit this organisation?



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2. What is monaxial heteropolar symmetry? Name the group of animals in which it is the principal symmetry.



3. Radial symmetry is an advantage to the sessile or slow moving organisms. Justify this statement.



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4. What is cephalization? How is it useful to its possessors?



5. Mention the animals that exhibited a 'tube-within-a-tube' organisation for the first time? Name their body cavity.



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6. What are retroperitoneal organs?



7. Distinguish between holocrine and apocrine glands.



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8. Mention any two substances secreted by mast cells and their functions.



9. Distinguish between a tendon and a ligament.



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10. Distinguish between brown fat and white fat.



11. What is the strongest cartilage? In which regions of the human body, do you find it?



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12. What is a Sesampid bone ? Give an example.



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13. What is the haematocrit value?



14. Cardiac muscle is highly resistant to fatigue. Justify.



15. Distinguish between white matter and greymatter of CNS'.



16. What are microglia and what is their origin and add a note on their function.



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Unit Ii Structural Organisation In Animals Short
Answer Type Questions

1. Describe the formation of schizocoelom and enterocoelom.



2. Give an account of glandular epithelium.



3. Describe the three types of cartilage.



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4. Explain Haversian system.



5. Describe the structure of a skeletal muscle.



6. Describe the structure of a cardiac muscle.



7. Describe the structure of a multipolar neuron.



Unit Ii Structural Organisation In Animals Long Answer Type Questions

1. Classify and describe the epithelial tissues on the basis of structural modification of cells with examples.



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Unit Iii Animal Diversity I Invertevbrate Phyla Very Short Answer Type Questions **1.** What are the functions of canal system of sponges ?



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2. What are the two chief morphological 'body forms' of cnidarians? What are their chief functions?



3. What is metagenesis? Animals belonging to which phylum exhibit metagenesis?



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Distinguish between amphids and phasmids.



5. What is metamerism? What is the essential difference between the mode of formation of individual morphological body units of a tapeworm and those of an earthworm?



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6. What is botryoidal tissue?



7. What are the respiratory structures of Limulus and Palamnaeus respectively?



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8. Which arthropod, you have studied, is called a living fossil? Name its respiratory Organs.



9. What is the function of radula? Give the name of the group of molluscs which do not possess a radula?



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10. What is the other name for the gill of a mollusc? What is the function of osphradium?



11. What is Aristotle's lantern? Give one example of an animal possessing it.



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12. What is the essential difference between the Juveniles (Larvae) and adults of echinoderms, symmetry wise ?



Unit Iii Animal Diversity I Invertevbrate Phyla Short Answer Type Questions

1. Write short notes on the salient features of the anthozoans.



2. What is the class to which the flukes belongs? Write short notes on the chief characters of the group



3. What are the salient features exhibited by Polychaetes?



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4. What are the chief characters of the crustaceans?



5. Mention the general characters of Arachnida.



6. Compare briefly a centipede and a millipede.



7. What are the salient features of the echinoids?



8. Mention the salient features of Holothuroidea.



Unit Iv Animal Diversity Ii Chordata Phylum Very Short Answer Type Questions

1. List out the characters shared by chordates and echinoderms.



2. How do you justify the statement heart in fishes is a branchial heart.



3. What are claspers ? Which group of fishes possesses them ?



4. What is 'force pump' in frog ? Why is named so ?



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5. Distinguish between mesorchium and mesovarium.



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6. Distinguish between milt and spawn.



7. Name two poisonous and non-poisonous snakes found in south India.



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8. Name the four extra embryonic membranes.



9. What are jacobson's organs? What is their function?



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10. What are pneumatic bones ? How do they help birds ?



11. Name the three meninges. In which group of animals do you find all of them?



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12. Name the vertebrates groups in which 'renal portal system' is absent.



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Unit Iv Animal Diversity Ii Chordata Phylum Short Answer Type Questions **1.** Name the four 'hallmarks' of chordates and explain the principal function of each of them.



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2. List out eight characteristics that helps distinguish a fish from the other vertebrates.



3. Compare and contrast cartilaginous and bony fishes.



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4. Write eight salient features of the class - Amphibia.



5. Write short notes on organs of special senses in frog.



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6. What are the modifications that are observed in birds that help them fly?



7. What are the features peculiar to ratite birds? Give two examples of ratite birds.



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- **8.** Give an example for each of the following.
- a. A viviparous fish

- b. A fish possessing electric organs
- c. A fish possessing poison sting
- d. an organ which regulates buoyancy in the



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Unit V Locomotion And Reproduction Very Short **Answer Type Questions**

1. Draw a labelled diagram of T.S of flagellum.



2. List any two differences between a flagellum and a cilium.



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3. What is a kinety?



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4. Distinguish between synchronous and metachronous movements.



5. Why is the offspring formed by asexual reproduction referred to as clone?



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6. Distinguish between proter and opisthe.



7. Define conjugation with reference to ciliates. Give two examples.



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Unit V Locomotion And Reproduction Short Answer Type Questions

1. What are lateral appendages? Based on their presence and absence, write the various types of flagella giving at least one example for each type.



2. Describe the process of transverse binary fission in paramecium.



3. Describe the process of longitudinal binary fission in Euglena.



4. Give an account of pseudopodia.



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5. Draw a neat labelled diagram of Euglena:



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6. Draw a neat diagram of paramecium and label its important structures/components.



Unit Vi Biology In Human Welfare Very Short Answer Type Questions

1. What is a hyper parasite ?Mention the name of one hyper parasite.



2. What do you mean by parasitic castration? Give one example.



3. Define Neoplasia. Give one example.



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4. Distinguish between precystic stage and cystic stage of E.histolytica.



5. A person is suffering from bowel irregularity, abdominal pain, blood and mucus in stool, etc. Based on these symptoms, name the disease and its causative organism.



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6. On the advice of a doctor, a patient has gone to a clinical laboratory for the examination of a sample of faeces. The lab technician, or observing the stool of the

patient diagnosed that the patient was suffering from amoebiasis. Write any two characteristic features based on which the technician came to that conclusion.



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7. Define the prepatent period. What is its duration in the life cycle of plasmodium vivax.



8. Define incubation period. What is its duration in the life cycle of Plasmodium vivax.



9. What are haemozoin granules ? What is their significance ?



10. What is exflagellation and what are the resultant products called?



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11. . What is Ookinete ? Based on the sets of chromosomes how do you describe it



12. A person is suffering from chills and shivering and high temperature. These symptoms are cyclically followed by profuse sweating and return to normal body temperature. Based on these symptoms name the disease and its causative organism.



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13. The eggs of Ascaris are called 'mammillated eggs". Justify it.



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14. What is meant by nocturnal periodicity with reference to the life history of a nematode parasite you have studied?



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15. Distinguish between lymphadenitis and lymphangitis.



16. In which way does tobacco affect the respiration? Name the alkaloid found in tobacco.



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17. From which substances 'Smack' and 'Coke' are obtained ?



18. Mention the names of any four drugs which are used as medicines to treat patients with mental illness like depression, insomnia etc., that are often abused.



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Unit Vi Biology In Human Welfare Short Answer
Type Questions

1. What is the need for parasites to develop special adarptations? Mention some special

adaptations developed by the parasites.



2. Describe the effects of parasites on the host.



3. Explain the structure and life cycle of Entamoeba histolytica with the help of neat and labelled diagrams?



4. Write a short note on the pathogenicity of Entamoeba histolytica?



5. Explain the pathogenicity of Wuchereria bancrofti in man.



6. Writé short notes on Preumonia and its prophylaxis.



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7. Write short notes on 'ringworm and its prophylaxis.



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8. What are the adverse effects of tobacco?

9. Why the adolescence is considered vulnerable phase ?



10. Distinguish between addiction and dependence.



11. Prevention is better than cure' justify with regard to TDA abuse.



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Unit Vi Biology In Human Welfare Long Answer
Type Questions

1. Explain the structure and life cycle of Entamoeba histolytica with the help of neat and labelled diagrams?



2. Describe life cycle of plasmodium vivax in man?



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3. Describe the life cycle of plasmodium vivax in mosquito ?



4. Describe the structure and life cycle of Ascaris lumbricoides with the help of a neat and labelled diagram.



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5. Describe the life cycle of wucheria bancrofti.



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Unit Vii Periplaneta American Cockroach Very **Short Answer Type Questions**

1. What are the structures with which cockroach walks on smooth surfaces and on rough surfaces respectively?



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2. Head of cockroach is hypognathous beccause



3. In which part of the gut of cockroach , water is reabsorbed?



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4. What is haemocoel?



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5. Why is the blood of Periplaneta called haemolymph?



6. What are trichomes? Write their functions.



7. Why is the respiratory system of cockroach called polypneustic and holopneustic system?



8. What is intima?



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9. What is storage excretion?



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Distinguish between scolopidia 10. and sensillae.



11. Why is the brain called the principal sensory centre in cockroach?



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12. Distinguish between apposition image and superposition image.



13. What are Phallomeres?



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14. What is paurometabolous development?



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Unit Vii Periplaneta American Cockroach Short Answer Type Questions **1.** Draw a neat labelled diagram of the mouthparts of a cockroach .



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2. How does periplaneta conserve water ? Explain it with the help of excretion in it .



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Unit Vii Periplaneta American Cockroach Long Answer Type Questions **1.** Describle the digestive of cockroach with the help of a neat labelled diagram .



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2. Describe the blood circulatory system of periplaneta in detail and draw a neat and labelled diagram of it.,



Unit Viii Ecology And Environment Very Short Answer Type Questions

1. Define population and community.



2. What is biome? Name any two biomes you studied.



3. Explain the difference between the 'nich' of an organism and its 'habitat'.



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4. How does your body solve the problem of altitude sickness,' when you ascend talls mountains?



5. Distinguish the terms phototaxis and photokinesis.



6. What is photoperiodism?



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7. What is bioluminescence?



8. What is cyclomorphosis ? Explain its importance in Daphnia.



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9. Define commensalism. Give one example.



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10. Define mutualism. Give one example.



11. Define amensalism. Give one example.



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12. What is camouflage? Give its significance.



13. Distinguish between lotic and lentic habitats.



14. Distinguish between neuston and nekton.



15. Define Entropy .



16. Explain the terms GPP, NPP?



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17. What is BOD ?



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18. Why are incinerators used in hospitals?



Unit Viii Ecology And Environment Short Answer Type Questions

1. What is summer stratification? Explain.



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2. Explain Vant' Hoff rule.



3. How do marine animals adapt to hypertonic sea water?



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Distinguish between eurthaline and stenohaline animals.



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5. An orchid plant is growing on the branch of mango tree. How do you describe this

interaction between the orchid and the mango tree?



6. Write a short note on the parasitic adaptations.



7. Explain the different types of aquatic ecosystems?



8. Define decomposition and describe the processes and products of decomposition.



9. Define ecological pyramids and describe with examples pyramids of number and biomass.



10. What are the deletorious effects of depletion of ozone in the stratosphere?



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11. Describe 'Green House' Effect.



12. Discuss the causes and effects of global warming. What measures need to be taken to control global warming?



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Unit Viii Ecology And Environment Long Answer Type Questions

1. Describe lake as an ecosystem giving examples for the various zones and the biotic components in it.

