

11th CLASS GUESS PAPER 2022.

BIOLOGY –

SHORT QUESTIONS.

UNIT NO. 1: INTRODUCTION.

1. Define microbiology and biotechnology.
2. Define hydroponic culture technique and give its application.
3. Differentiate between Fresh water biology and Marin Biology.
4. Define Parasitology.
5. What is “integrated disease management”?
6. Difference between chemotherapy and radiotherapy.
7. Compare radiotherapy and gene therapy to control diseases.
8. What is biological control? Give its examples.

LONG QUESTIONS.

1. How study of Biology helped making to improve production of food?
2. Define cloning discuss its types and the commercial importance the technique.
3. Describe the role of drug treatment and gene therapy in disease control.

UNIT NO. 2. BIOLOGICAL MOLECULE

SHORT QUESTIONS.

1. What is heat capacity of water? Give its importance.
2. Define protective role of water.
3. Define heat of vaporization? Give the heat of vaporization of water.
4. What do you know about ionization of water?
5. Differentiate between Amylose and Amylopectin.
6. Why Glycogen is called animal starch.
7. What is the effect of hydrolysis on oligosaccharides?
8. What is the general formula for an amino acid?

LONG QUESTIONS.

1. Describe importance of water by discussing its various properties.
2. What are polysaccharides? Describe its two different types.
3. What are Carbohydrates? Give details of monosaccharides with suitable structural illustration.
4. Describe acylglycerols in detail.
5. Write a note primary structure of Protein.

UNIT NO. 3. ENZYMES.

SHORT QUESTIONS.

1. Define enzymes.
2. Give role and example of enzymes activator.
3. Define Apo enzyme.
4. Give any two characteristics of enzymes.
5. Differentiate between binding site and catalytic site.
6. What is difference between pepsin and pepsinogen?
7. What do you mean by induce fit model of enzymes action?
8. What is lock and key model? Who proposed this model?
9. What are reversible inhibitors?

LONG QUESTIONS.

1. Explain the mechanism of enzyme action in detail.

UNIT NO. 4 THE CELL

SHORT QUESTIONS.

1. Write down any two difference between prokaryotes and eukaryotes?
2. What is plasma membrane? Give its composition.
3. Difference between phagocytosis and pinocytosis.
4. Define polysomic and ribosomes.
5. Write down the two functions of Golgi complex.
6. Define Tay-sach's disease.
7. What is peroxisome?
8. What are intermediate filaments?
9. Give any two important functions of centrioles.
10. How chromoplast helps in plant life cycle?

LONG QUESTIONS.

1. Define fluid Mosaic Model and functions of plasma membrane.
2. Explain structure of plasma membrane.
3. Give structure and function of endoplasmic reticulum.

UNIT NO. 5 VARIETY OF LIFE.

SHORT QUESTIONS.

1. Give biological classification of corn.
2. What is binomial nomenclature? What are two rules of nomenclature?
3. Define capsid.
4. What are prions?
5. What are capsomeres? How many chromosomes are present in the capsid of herpes virus?
6. How virion differs from prion?
7. Compare prophage with provirus.
8. Discuss two to five kingdom classification system.

NO LONG QUESTIONS.

UNIT NO. 6 KINGDOM PROKARYOTES(MONERA)

SHORT QUESTIONS.

1. What are pill? Give their functions.
2. Differentiate between Gram-positive and gram-negative bacteria.
3. Differentiate between lophotrichous and amphitrichous.
4. Name different types of bacteria on the basis of flagella presence.
5. What are mesosomes and some of their possible functions?

LONG QUESTIONS.

1. Describe different classes of bacteria on the basis of flagella.
2. Give nutrition in Bacteria.
3. Discuss growth and reproduction in bacteria.
4. Explain characteristic of cyanobacteria.

UNIT NO. 7**THE KINGDOM PROTISTA****SHORT QUESTIONS.**

1. Difference between zoo flagellates and din flagellates.
2. Write features of chrysophyta.
3. Write symptoms of Malaria and their cause.
4. What are choanoflagellates?
5. What is the importance of Trichonymphas?
6. What is sleeping sickness?
7. Write down two characteristics of ciliates.
8. How ciliates differ from other protozoans?
9. Give habitat of Algae.
10. Green algae are considered ancestral organism of green land plants, why?
11. What is chlorella?
12. Write down similarities and difference between fungi and fungus like Protista.
13. Why physarum polycephalum is a model organism for research.
14. Give two characters of water molds.

LONG QUESTIONS.

1. Discuss important features of protists. Why are protists so difficult to classify.
2. What are three major groups of protists?
3. Discuss general characteristics of algae.

UNIT NO. 8**FUNGI.****SHORT QUESTIONS.**

1. Difference between septate and coenocytic hyphae.
2. What is endomycorrhizae?
3. Differentiate between karyogamy and plasmogamy.
4. How spore are different from conidia?
5. Differentiate between conidia and conidiophore?
6. Compare Ascocarp with Basidiocarp.
7. What is par asexuality in fungi?
8. What are Mycorrhizae?

LONG QUESTIONS.

1. How asexual reproduction occurs in Fungi.
2. Discuss economic gains of Fungi.
3. Explain economic losses due to fungi.
4. Give land adaptations of bryophytes.

UNIT NO. 9 KINGDOM PLANTAE.

SHORT QUESTIONS.

1. Differentiate between antheridiophores and archegoniophores.
2. Define paraphyses.
3. Define the term Circinate vernation.
4. Name the two living and extinct representative of psilopsida.
5. Give two important features of lycopsida.
6. What is homosporous?
7. Differentiate between male and female cones of pinus.
8. How does gymnosperm differ from Angiosperms? Give two points only.
9. What are essential and non-essential parts of flower?

LONG QUESTIONS.

1. Describe gametophyte stage in the life history of adiantum.
2. Discuss life cycle of Maiden hair fern.
3. Describe at least four steps to the evolution of seed habit.
4. Write the economic importance of family poaceae.

UNIT NO. 10. KINGDOM ANIMALIA.

SHORT QUESTIONS.

1. Differentiate between radial and bilateral symmetry.
2. Differentiate between protostomia and deuterostomia.
3. Define the term Spiral cleavage.
4. Differentiate between parazoa and eumetazoa.
5. Differentiate between “radial cleavage” and “spiral cleavage”.
6. Define gemmules and protandrous.
7. Differentiate between budding and gemmules.
8. What is polymorphism?
9. What do you mean by infestation and disinfestations?

LONG QUESTIONS.

1. What are beneficial insects?
2. What are harms caused by insects?
3. How complete metamorphosis is different from incomplete metamorphosis.

UNIT NO. 12 NUTRITION.

SHORT QUESTIONS.

1. Define nutrition.
2. Name the ingredients of saliva.
3. How selection of food takes place by oral cavity?
4. What is heart burn or pyrosis?
5. Differentiate between secretin and gastrin.
6. What is the cause of constipation?
7. Difference between appendix and appendicitis.
8. Write notes on i) Anorexia nervosa ii) Bulimia nervosa

LONG QUESTIONS.

1. How insectivorous plants meet their demand of organic compounds? Describe it.

2. How food is digested and absorbed in small intestine.

UNIT NO. 13 GASEOUS EXCHANGE.

SHORT QUESTIONS.

1. Differentiate between organismic and cellular respiration.
2. Why O₂ can be obtained more easily from air than from water?
3. What is Rubisco?
4. What is larynx?
5. Differentiate between bronchi and bronchioles.
6. Define diaphragm and pleura.
7. What is the mechanism of inhalation of air in man?
8. How hemoglobin differ from myoglobin?
9. Describe lung capacities?
10. What are the symptoms of Asthma?
11. What is diving reflex?

LONG QUESTIONS.

1. Discuss the mechanical aspects of breathing in man.
2. Describe briefly the properties of respiratory surfaces in cockroach.

UNIT NO. 14 TRANSPORT.

SHORT QUESTIONS.

1. Differentiate between diffusion and osmosis.
2. Difference between apoplast and symplast pathway.
3. Define Guttation? What factors effect?
4. Define imbibition.
5. Differentiate between thrombus and embolus.

LONG QUESTIONS.

1. Explain pressure flow theory for translocation of food in plants.
2. Write a note on cohesion tension theory.
3. Define immunity Give its types.