

BT I 2018 REVISION QUESTION BANK CLASS XI

UNIT I

LIVING WORLD AND BIOLOGICAL CLASSIFICATION

1 Mark questions

1. What is dikaryon?
2. Why are the members of deuteromycetes group called fungi imperfecti.?
3. What is the cellwall of Monerans made up of?
4. How many ascospores found in ascus?
5. Why is Euglena known as mixotroph?
6. Define monogram
7. What is herbarium?

2 Marks question

1. What are methanogens?Where are they found?
2. What is the nature of cellwall of diatoms?
3. How are viroids different from viruses?
4. Define herbarium?
5. What is taxonomic hierarchy?
6. Differentiate between zoospore and zygosporangium of fungi.

3Marks questions

1. Why dinoflagellates known as red tide?
2. Name and explain the three steps in the sexual cycle of fungi.
3. State in brief about the nutrition in fungi.
4. Differentiate between basidium and basidiocarp.
5. What is heterocyst ?State it's significance.
6. Differentiate between archaeobacteria and eubacteria.

5Marks questions

1. State the types of bacteria based on their shapes.
2. State the economic importance of diatomite.
3. Draw a labelled diagram of Nostoc.
4. State the types of archaeobacteria with examples.
5. Draw a labelled diagram of Bacteriophage.
6. Describe the special features of T.M.V
7. Describe the four groups of protozoa.
8. Differentiate between ascus and basidium.
9. Lichen is pollution indicator-explain.

ANIMAL KINGDOM AND PLANT KINGDOM

1 mark question

1. What is mesoglea?
2. Define cephalisation?
3. Why urochordates are called tunicates?
4. Why cartilaginous fish swim constantly?
5. Name the reptile with four chambered heart?
6. What is phycolloid ? Give example.
7. When and where does meiosis occur in pteridophyte?
8. What is a strobilus in plant like Selaginella?
9. Name the first group of land plant possessing vascular tissue.
10. Name the characteristic pigment found in Rhodophyceae.

2marks question

1. Differentiate isogamy and anisogamy.
2. What is gemmae? Give example.
3. Why is endosperm of angiosperm triploid?
4. What are heterosporous fern? Give example.
5. How many cells are found in egg apparatus?
6. Differentiate between Arthropoda and annelida.
7. Differentiate between cnidarian and ctenophora
8. How important is the presence of airbladder in Pisces?
9. State the modifications of birds for flight.

10. Write in brief –metagenesis.

3marks question.

1. Describe the canal system of sponges and water vascular system in Echinodermata.
2. Classify vertebrates based on their distinguishing features.
3. Differentiate Echinodermata and Mollusca.
4. Differentiate Aves and Mammalia.
6. What is heterospory? Briefly comment on its evolutionary significance.
7. Explain –gametophyte is dependent on sporophyte in Dryopteris and vice versa in Funaria.
8. Differentiate between haplontic and diplontic lifecycle.
9. Differentiate between liverworts and moss.
10. Explain the types of algae with their pigments and stored food

5marks question.

1. Describe the different levels of organization of body of animals with example for each.
 2. How the study on coelom helps in classification? Explain with diagram.
 3. Mention six characters of hemichordate.
 4. State schematic representation on life cycle of algae.
 5. Draw the labelled diagram of hemichordate.
 6. State the evolution found based on the heart structure of chordate.
 7. Explain-protonema, antheridium, archegonium, sporophyll, zygote.
 8. Write note on sexual reproduction in gymnosperm.
 9. Explain double fertilization.
 10. Give the schematic representation of lifecycle of pteridophyte/gymnosperm/angiosperm
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MORPHOLOGY AND ANATOMY OF FLOWERING PLANTS

UNIT II

2 MARKS

1. Differentiate between Racemose and Cymose
2. What is phyllotaxy? State its types with examples.

3 MARKS

1. Define meristematic tissue. Classify them based on their location and functions with suitable examples.
2. Classify modified stems with types and examples.

Five mark questions

1. i) Write the floral formula of a flower which is bisexual, zygomorphic, gamosepalous with five sepals, having five united petals, monoadelphous with ten stamens and is monocarpellary with a superior ovary.
ii) Write the floral formulae of the families Solanaceae and Liliaceae.
iii) Draw and label a diagram to show the different regions of a tap root system. (1+2+2)
2. i) Draw the floral diagram and write the floral formula of family Fabaceae.
ii) With the help of suitable sketch diagrams describe valvate and imbricate aestivation. (3+2)
3. Give the distinguishing morphological features of gynoecium of family Fabaceae, Solanaceae and Liliaceae. Draw floral diagrams of Fabaceae and Solanaceae.

UNIT III

CELL THE UNIT OF LIFE

ONE MARK QUESTIONS

1. What is the chief role of plasmodesmata?
2. Which is the smallest known cell?
3. What is the chemical composition of middle lamella?
4. What is a centromere?
5. What is referred to as satellite chromosome?

TWOMARK QUESTIONS

1. Briefly describe the cell theory?
2. Mention the types of chromosomes based on the position of centromere
3. Differentiate between gram-positive and gram-negative bacteria.
4. What structural and functional characteristics of cilia flagella and centrioles have in common?
5. What are nuclear pores? State their function.

Threemark

1. What are the characteristics of prokaryotic cell?
2. Briefly give the contributions of the following scientists in formulating the cell theory
 - a. Robert Virchow
 - b. Schielden and Schwann
3. Is extra genomic DNA present in prokaryotes and eukaryotes? If yes, indicate their location in both the types of organisms.
4. Write the functions of the following
 - a. Centromere
 - b. SmoothER
 - c. GolgiApparatus
5. Eukaryotic cells have organelles which may
 - a. Not be bound by a membrane
 - b. Bound by a single membrane
 - c. Bound by a double membrane

FIVE MARKS QUESTIONS

1. Describe the typical structure of metaphase chromosome, illustrating it with the help of a diagram.
2. With a neat labelled diagram describe the fluid mosaic model of plasma membrane.
3. Describe the structure of mitochondria with a labelled sketch. Mention its functions.
4. With a neat labelled diagram describe the structure and function of chloroplast.

Chapter:9 Biomolecules

Onemark questions

1. What are saturated fatty acids?
2. What are primary metabolites?
3. Among proteins nucleic acids polysaccharides and lipids which is strictly not a macromolecule?
4. What are the active sites of enzymes?
5. Why do oils generally remain in liquid state even in winters?

Two marks questions.

1. List the factors which affect the enzymatic activity.
2. Amino acids exist as zwitterions. Give its structure. Why is it formed?
3. Why does starch give blue black colour with iodine?
4. Why do physicians recommend vegetable oils rich in polyunsaturated fat for persons suffering from cardiovascular diseases?
5. How are prosthetic groups different from co-factors?

Three Marks questions.

1. Explain the structure of proteins.
2. Explain Watson - Crick Model on DNA structure.
3. Explain competitive inhibition along with an example.
4. Is rubber a primary metabolite or a secondary metabolite? Write four sentences about rubber.
5. Comment on the statement "living state is a non-equilibrium steady- state to be able to perform work".

Five marks questions

1. Explain the different types of enzymes classified based on their function.
2. Describe the various conformations showed by proteins

CHAPTER-10
CELL CYCLE AND CELL DIVISION

1. In yeast mitosis is a means of reproduction, Why?
2. Mention the significance of chiasmata.
3. Name the stage of meiosis, during which, synaptonemal complex is formed.
4. Name a stain commonly used to colour chromosomes.
5. What attributes does a chromatid require to be classified as a chromosome?

Two Marks questions

1. Write difference between diplotene and pachytene?
2. Comment on the statement "Meiosis enables the conservation of specific chromosome number of each species even though the process actually results in reduction of chromosome number."
3. How does cytokinesis in plant cells differ from that in the animal cells?
4. What will be the DNA content of a cell at G₁ after S and G₂ if the content after M phase is 2C.
5. If a tissue has at a given time 1024 cells, how many cycles of mitosis had the original parental single cell undergone?

Three Marks Questions.

1. Distinguish between prophase and telophase? Explain interphase with its stages.
2. With neat labelled diagram compare metaphase and anaphase of mitosis.
3. List the difference between prophase and Telophase of mitosis.
4. With neat labelled diagram distinguish between zygotene and diplotene of prophase I
5. Mitochondria and plastids have their own DNA (genetic material). What is known about their fate during nuclear division like mitosis?

Five marks Question

1. Distinguish between mitosis and meiosis.
2. Describe the stages of prophase-I of meiosis.
3. Comment on the statement—Telophase is reverse of prophase.
4. Write brief note on the following
 - a. Synaptonemal complex
 - b. Metaphase plate
5. An organism has two pair of chromosomes (i.e., chromosome number = 4). Diagrammatically represent the chromosomal arrangement during different phases of meiosis-II

