

QUESTION BANK FOR CLASS IX:- SA-1
BIOLOGY
THE FUNDAMENTAL UNIT OF LIFE

VERY SHORT ANSWER QUESTIONS

1. Define the following terms :
a) Genes b) Nucleoid c) Osmosis d) Membrane biogenesis e) Plasmolysis
2. Where are peroxisomes found ?
3. What is ATP? Write its full form.
4. What is cell theory? Who formulated it?
5. Draw the structure of mitochondria.
6. What are cell organelles? Write the names of different cell organelles.

SHORT ANSWER QUESTIONS

1. What is 'division of labour' in multicellular organisms ?
2. What is a nucleoid? How is it different from the nucleus of eukaryotic cell?
3. Which cell in the human body does not have the mitochondria and why?
4. Give reasons:-
 - a) Cell is called the structural unit of life.
 - b) Lysosomes are a kind of waste disposal system of cells.
 - c) Cells of plants, fungi and bacteria withstand very dilute external medium without bursting.

LONG ANSWER QUESTIONS

1. (a) What is endoplasmic reticulum? (b) Describe its structure. (c) Name the two types of Endoplasmic Reticulum. (d) What crucial role does it play in the liver cells of vertebrates?
2. Differentiate between:-
 - a) Cell wall and cell membrane
 - b) RER and SER
 - c) Chromoplast and Chloroplast
 - d) Prokaryotic and Eukaryotic cell
3. What is the role of Ribosomes and Golgi bodies in the proper functioning of the cell?
4. Draw well labelled diagrams of- a) Prokaryotic cell b) A typical cell c) Plant cell
5. Differentiate between chromatin, chromosomes, and chromatid.
6. Explain the working principle of compound microscope.
7. Differentiate between haploid and diploid cells.
8. What is the advantage of multicellularity over unicellularity?

TISSUES

VERY SHORT ANSWER QUESTIONS

1. Why do stems of shrubs and herbs growing in open places and exposed to forceful winds do not break easily?
2. What do you mean by aerenchyma?
3. Name the tissue which allows easy bending in various parts of a plant.
4. Which structure protects the plant body against the invasion of parasites?
5. Based on ability to divide, how many types of plant tissues are found?

6. Name the tissue which forms the lining of kidney tubules and ducts of salivary glands.
7. Name the fibrous tissue with great strength but limited flexibility.
8. Name the chemical released by cork cells?
9. Identify the type of tissue in the following:
Skin, bark of tree, bone, lining of kidney tubule, vascular bundle
10. Which tissue has Haversian canals? Differentiate between a bone and a cartilage.

SHORT ANSWER QUESTIONS

1. Give reasons for the following:-
 - (a) Meristematic cells have a prominent nucleus and dense cytoplasm but they lack vacuole.
 - (b) Branches of a tree move and bend freely in high wind velocity.
 - (c) We get a crunchy and granular feeling, when we chew pear fruit.
2. Name the tissue that smoothens bone surfaces at joints. Describe its structure with the help of a diagram.
3. Water hyacinth floats on water surface. Explain
4. What do you understand by complex tissue? Name the two types of complex permanent tissue present in plants? Give one function of each complex tissue.
5. Uma started walking fast when she noticed that some unknown faces are following her. Name the two types of tissues which facilitated the movement of her leg bones in response to the stimulus.
6. (a) State two important functions of Areolar tissue.
(b) Why are skeletal muscles known as striated muscles?

LONG ANSWER QUESTIONS

1. Differentiate between aerenchyma and chlorenchyma.
2. Describe the structure and function of different types of epithelial tissues. Draw diagram of each type of epithelial tissue.
3. State the ways in which phloem is functionally different from Xylem.
4. Draw a labelled diagram of cardiac muscle found in human body. Write two differences between striated and smooth muscles.
5. (i) What type of tissue is bone ? (ii) What is the hard matrix made up of ? (iii) Write the functions of ligaments and tendons.
6. Classify connective tissue and give one example of each.

IMPROVEMENT IN FOOD RESOURCES

VERY SHORT ANSWER QUESTIONS

1. What are milch animals?
2. Name two cattle breeds which show excellent resistance of diseases.
3. Mention two signs of a healthy animal.

4. Name any two local varieties of bees that are used for commercial honey production in India.
5. What is green manure?
6. Mention the useful characteristics for which breeding is done in plants.
7. What are weeds? How do they harm the crop? Give scientific names of the following weeds:
 - a) gokhroo b) gajar ghas c) motha
8. Name an indigenous breed and an exotic breed of hen.

SHORT ANSWER QUESTIONS

1. How is the use of manure beneficial for our environment?
2. List the four important preventive measures to control weeds.
3. What are the advantages of bee keeping?
4. Give the merits and demerits of fish culture.
5. Write the modes by which insects affect the crop yield.
6. Define the terms hybridization and photoperiod.
7. Give two reasons as to why there is tremendous scope to develop fisheries in India.
8. What do you understand by organic farming?
9. How do you differentiate between capture fishing, marine culture and aquaculture?
10. Why do we need sustainable practices in agriculture and animal husbandry?
11. What is the major problem in composite fish farming? What method is used to overcome this problem?
12. How are Italian bees more advantageous over local varieties?

LONG ANSWER QUESTIONS

1. Differentiate between compost and vermicompost?
2. Cows A and B are of same breed. Cow A is fed on grass and cow B is fed on maize, grass, barley, etc. Which do you expect to give a higher quantity of milk? Give reason for your answer.
3. (a) State two differences between egg layers and broilers.
(b) How can poultry fowl be prevented from various diseases? State any three methods.
4. State two advantages of composite fish culture. What is the application of hormonal stimulation in fish culture?
5. Unpredictable monsoon / droughts / low rainfall is adversely affecting the Indian agriculture.
 - (a) Mention any two initiatives that have been adopted to increase the availability of water for agricultural purposes.
 - (b) State two advantages of making check dams
 - (c) Briefly describe canal and river lift system of irrigation.
6. Classify and explain manure based on the kind of biological materials used to make it.