

233. How does gymnosperm differ from angiosperms? Give two points only.
234. What are essential and non-essential parts of flower?
235. Define double fertilization. In which plants, it occurs?
236. Differentiate between dicots and monocots.
237. What is chlorosis and what is their cause?
238. What are insectivorous plants? How they get their carbohydrates?
239. What is meant by symbiotic nutrition?
240. Differentiate between saprophytic and Parasitic mode of nutrition.
241. What are leguminous plants?
242. What is detritus feeding? Give examples.
243. What are filter feeders? Give their two examples.
244. What are Macrophagous feeding? Give one example.
245. Differentiate between facultative and obligate parasite.
246. Define digestion and egestion.
247. Define sac like digestive system and tube like digestive system regarding their efficiency.
248. Differentiate between Herbivores and Carnivores.
249. Differentiate between absorption and assimilation.
250. Name the ingredients of saliva.
251. Write only two functions of oral cavity.
252. What is heart burn or pyrosis?
253. Differentiate between chime and bolus.
254. Name different cells with their secretions which produce gastric juice.
255. Give names of hormones secreted by digestive systems.
256. How the gall stones are formed?
257. Write the composition of pancreatic juice.
258. Compare diarrhea and constipation.
259. What is Dyspepsia? Give its two symptoms.
260. How adipose tissue is formed?

## LONG QUESTIONS

### LONG QUESTION NO. 5

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>✓ Differentiate between deductive and inductive reasoning with examples.</li> <li>✓ Explain the biological method for solving a biological problem.</li> <li>✓ How study of Biology helped mankind to improve production of food.</li> <li>✓ Define cloning discuss its types and the commercial importance of the technique.</li> <li>✓ What is the role of study of Biology in the welfare of mankind in the field of protection and conservation of environment?</li> <li>✓ Describe the role of drug treatment and gene therapy in disease control.</li> </ul> | <ul style="list-style-type: none"> <li>✓ List the air passage way in the sequence from nostrils to alveoli. Describe the structure of alveolus in detail.</li> <li>✓ Explain inspiration and expiration in man.</li> <li>✓ In what ways air is better respiratory medium than water?</li> <li>✓ In what ways, respiration is birds the most efficient and elaborate?</li> </ul> |
|---|---|

### LONG QUESTION NO. 6

- ✓ Why carbon occupies the central position in the skeleton?
- ✓ Describe the importance of water of life.
- ✓ What are polysaccharides? Describe its two different types.
- ✓ Describe acylglycerols in detail.
- ✓ Write a note on primary structure of protein.
- ✓ What functions are performed by proteins in the bodies of living organisms?
- ✓ Discuss Watson & Crick model of DNA.

- ✓ How asexual reproduction occurs in fungi.
- ✓ Explain sexual reproduction in Fungi.
- ✓ Describe and draw/sketch life cycle of Rhizopus.
- ✓ Give the adaptations of fungi on land.
- ✓ Write any four economic gains due to fungi.
- ✓ Write a note on economic losses due to fungi with a reference to animal diseases only.

**LONG QUESTION NO. 7**

- ✓ Define Fluid Mosaic Model & functions of plasma membrane.
- ✓ Write a detailed note on Endoplasmic Reticulum.
- ✓ Describe the structure and function of Mitochondria.
- ✓ Describe the structure and functions of chloroplast.
- ✓ What are plastids? Explain structure and function of chloroplasts.
- ✓ Differentiate between Prokaryotic and Eukaryotic Cells.

- ✓ Describe nutrition in insectivores plants.
- ✓ Explain digestion in cockroach. (Make its diagram)
- ✓ Describe digestion cavity of man.
- ✓ Explain digestion in human stomach.
- ✓ Describe absorption of digested food in small intestine.

**LONG QUESTION NO. 8**

- ✓ Discuss the five kingdom system of classification proposed by Robert Whittaker.
- ✓ Write a note on structure of viruses.
- ✓ Describe Life cycle of a Bacteriophage.
- ✓ Describe various steps of lytic cycle of phage virus (bacteriophage).
- ✓ Sketch the infection cycle of HIV.
- ✓ Define Hepatitis. Describe its causes and different types.

- ✓ Describe influx of  $K^+$  ions hypothesis to explain the opening and closing of stomata.
- ✓ Why transpiration is necessary evil?
- ✓ Explain different functions of human blood.
- ✓ Describe the composition of blood plasma.
- ✓ Write a note on cardiac cycle?
- ✓ Write down the main functions of lymphatic system in human body.

**LONG QUESTION NO. 9**

- ✓ Discuss about bacterial cell wall.
- ✓ Give nutrition in Bacteria.
- ✓ Discuss growth and reproduction in bacteria.
- ✓ Describe different physical and chemical methods to control bacteria.
- ✓ Write a note on use and misuse of antibiotic.
- ✓ Describe general characteristics and economic importance of Cyanobacteria.

- ✓ Prove that water is a source of oxygen in photosynthesis.
- ✓ Briefly describe the steps involved in the non-cyclic phosphorylation.
- ✓ Discuss the non cyclic phosphorylation with diagram.
- ✓ What is Glycolysis? Sketch its various steps only. (No Description)
- ✓ Explain krebs cycle. (Give only outline of krebs cycle)