

SECTION – I**2. Write short answers to any EIGHT (8) questions :****16**

- Which role is played by cellulose digesting enzymes in plant eating animals, discuss briefly.
- At constant temperature and pH, how rate of reaction can be doubled?
- In which way inhibitors stop catalytic activity of the enzymes? Give one example.
- Why enzymes remain unaltered after the formation of products?
- How rust is differentiated from smut?
- What is parasexuality in fungi?
- Name the phylum of these animals, octopus, tape worm, leech and dolphin.
- Give two differences between protostomes and deuterostomes.
- What do you know about pseudocoelomates?
- Define polymorphism, also give an example.
- Differentiate between photosystem-I and photosystem-II.
- Write name of four stages of cellular respiration.

3. Write short answers to any EIGHT (8) questions :**16**

- Compare radiotherapy and gene therapy to control diseases.
- Differentiate between embryonic and organism cloning.
- How cell membrane is differentially permeable membrane? Justify it.
- What is the factory of synthesis of protein and ribosomes?
- Basically kingdom protista is defined by exclusion, how?
- How slime moulds adopt unfavourable and favourable conditions?
- Why phytophthora infestans is infamous in human history?
- What type of pigments are found in rhodophyta and chlorophyta?
- Define double fertilization. Give its importance.
- Write scientific names of potato and amaltas.
- Describe apoplast pathway.
- What are granulocytes?

4. Write short answers to any SIX (6) questions :**12**

- Write down contributions of E-Chatton.
- Shortly write down the structure of bacteria.
- Write down the role of nitrogen and phosphorus in plant growth.
- Write few lines on filter feeders.
- Differentiate cardiac and pyloric sphincter with reference to their function.
- Write down CO₂ concentration in arterial and venous blood.
- What is the role of partial pressure of O₂ during shock?
- Write short note on asthma.
- How rubisco is converted into serine?

SECTION – II**Note : Attempt any THREE questions.**

- Give the details of biological conservation and protection of environment. **4**
 - What is immunity? Discuss its major types. **4**
- What is RNA? Describe its different types. **4**
 - Discuss the economic gains due to fungi. **4**
- Cell membrane and nuclear material of bacteria differ from that of eukaryotic cell. Explain. **4**
 - How the life cycle of an angiospermic plant differs from a gymnospermic plant? **4**
- Illustrate the life cycle of bacteriophage diagrammatically. **4**
 - Give in detail the carbon fixation and reduction phase of Calvin Cycle. **4**
- Discuss structure and chemical composition of cell wall. **4**
 - Explain the process of digestion in oral cavity of man. **4**