TERM-II

QUESTION PAPER (SAMPLE-5)

Class: XI **Subject: Biology**

Time Allowed-2 Hours **Max.Marks.:35**

Section-A **1*4=4 Marks**

1. A farmer grows cucumber plants in his field. He wants to increase the number of female flowers in them. Which plant growth regulator can be applied to achieve this?
2. Name the structures involved in the protection of the brain.
3. Where is the hunger centre located in human brain?
4. During resting potential, the axonal membrane is polarised, indicate the movement of +ve and –ve ions leading to polarisation diagrammatically.

Section-B **3*7=21 Marks**

1. ATP produced during glycolysis is a result of substrate level phosphorylation. Explain.
2. RuBP carboxylase, PEP carboxylase, Pyruvate dehydrogenase, ATPase, cytochrome oxidase, Hexokinase, Lactate dehydrogenase.

   Select/choose enzymes from the list above which are involved in

   a. Photosynthesis

   b. Respiration

   c. Both in photosynthesis and respiration

3. Complete the missing terms

   a. Inspiratory Capacity (IC) = _____ +IRV

   b. _____ = TV + ERV

   c. Functional Residual Capacity (FRC) = ERV + ____

4. Answer the following

   a. Name the major site where RBCs are formed.

   b. Which part of heart is responsible for initiating and maintaining its rhythmic activity?

   c. What is specific in the heart of crocodiles among reptilians?

5. Explain, why a haemodialysing unit called artificial kidney?
6. Write the difference between:

   (a) Actin and Myosin

   (b) Red and White muscles

7. Which hormonal deficiency is responsible for the following:
   (a) Diabetes mellitus
   (b) Goitre
   (c) Cretinism

Section-C **5*2=10 Marks**

1. An organism has two pair of chromosomes (i.e., chromosome number = 4). Diagrammatically represent the chromosomal arrangement during different phases of meiosis-II.

   OR

   Differentiate between the events of mitosis and meiosis
2. Explain in Detail 'Z scheme' of photosynthesis.