



THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

Q.1. Answer the following short questions: (15x2=30)

- i. Write about importance of Hydrogen ion in biological systems?
- ii. Differentiate between sex-chromosomes and autosomes?
- iii. What are the two modes of energy acquisition?
- iv. Sketch the structure of purines?
- v. Differentiate between the DNA and RNA.
- vi. What Are the Disadvantages of Genetic Engineering?
- vii. What is the main purpose of biotechnology?
- viii. What are multiple alleles?
- ix. Write about Genomic imprinting?
- x. Describe the incomplete dominance and codominance?
- xi. Write about phenotype and genotype?
- xii. Differentiate between nucleotide and nucleoside.
- xiii. What are the three main purposes of metabolism?
- xiv. What are the Principle threats to biodiversity?
- xv. How is RNA related to proteins?

Q.2. Answer the following questions: (3x10=30)

- 1 (a) Write in detail about Mendelian inheritance patterns. 6
- (b) Explain types and function of RNA. 4
- 2 (a) What are the 8 stages of meiosis? Explain each. 6
- (b) Explain Autosomal recessive inheritance? 4
- 3 (a) Write in detail about structure of DNA. 6
- (b) Explain how the can we conserve biodiversity? 4