

PART - I**Q.2 Write short answers to any FIVE (5) questions: 10**

- i List any four careers associated with biology.
- ii What can you say about species?
- iii Write the names of vegetative organs of a plant.
- iv Define science.
- v Write the steps in solving a biological problem.
- vi What would happen if quina quina tree was not discovered?
- vii Write down two functions of cytoplasm.
- viii Differentiate between resolution and magnification.

Q.3 Write short answers to any FIVE (5) questions: 10

- i Write down the aims of classification.
- ii Mention the significance of binomial nomenclature in scientific communication.
- iii Why is a species called endangered? Give two examples of endangered species of Pakistan.
- iv Why crossing over during meiosis is essential for genetic diversity?
- v How is cell replacement occur in living organisms?
- vi How is benign turners differ from malignant turners?
- vii What is the glycolysis? Where does it take place in the cell?
- viii How do the temperature affect the rate of photosynthesis?

Q.4 Write short answers to any FIVE (5) questions: 10

- i How enzymes lower the activation energy?
- ii Differentiate between "Lock and key model" and "induced fit model".
- iii Write the sources of vitamin 'A'.
- iv What is the role of sodium in the human body?
- v How rhodopsin is formed?
- vi How plasma can be separated from blood?
- vii Which structures are involved in transpiration in plants?
- viii Which are the risk factors that lead to cardiovascular disorders?

PART - II**Note: Attempt any TWO questions.**

- Q.5(a)** Explain organ and organ system level. 4
- (b)** Define transpiration. Write the factors that affecting the rate of transpiration. 5
- Q.6(a)** Identify the causes of deforestation and its effects on biodiversity. 5
- (b)** Explain the mechanism of respiration while defining the glycolysis, krebs cycle and electron transport chain. 4
- Q.7(a)** What do you know about compound tissues? Explain each kind of compound tissues. 5
- (b)** How vitamin 'A' effects the human health? 4