

NOTE: Attempt all questions of Section-A by filling the corresponding bubble on the MCQ ANSWER SHEET and return it to the Superintendent within given time, even if you have not attempted any question.

SECTION-A

Time: 20 Minutes

Marks: 12

1. Which organelles are covered with a double membrane? A) ribosomes, B) vacuoles, C) centrioles, D) mitochondria
2. Meiosis takes place in which of the following organs? A) testes, B) lungs, C) heart, D) stomach
3. The organisms responsible for trapping light energy are A) plants, B) algae, C) photosynthetic organism, D) fungi
4. The web present between fingers during human development disappears by A) apoptosis, B) necrosis, C) chlorosis, D) mitosis
5. Which substance is used by plants to make proteins? A) carbon dioxide, B) oxygen, C) nitrates, D) vitamins
6. Which cells of the blood are responsible for clotting? A) platelets, B) erythrocytes, C) neutrophils, D) basophils
7. The branch of biology which deals with the study of internal structure of organisms is called A) morphology, B) histology, C) anatomy, D) taxonomy
8. According to five kingdom system of classifications, mushrooms belong to A) plantae, B) fungi, C) animalia, D) protista
9. Which one is the first step in biological method? A) hypothesis, B) experiment, C) observations, D) deduction
10. Closely related genera are grouped into a A) order, B) family, C) class, D) phylum
11. Which of the following kingdoms possesses the simplest organism? A) fungi, B) monera, C) protista, D) plantae
12. Which of the following is a simple tissue? A) xylem, B) phloem, C) epidermal, D) none of these

Time: 2 Hours 40 Minutes

SECTION-B

Marks: 32

1. Attempt any eight of the following. All carry equal marks.
- Define anatomy, histology, entomology and genetics.
 - What is colonial organization?
 - What deductions were developed during the study of malaria?
 - Write down the advantages of binomial nomenclature.
 - Differentiate between endocytosis and exocytosis.
 - Write a note on mitochondria.
 - What is nervous tissue?
 - Write down any two significances of mitosis.
 - Describe lactic acid fermentation?
 - Write down the advantages of organic fertilizers.
 - What is leukaemia?

SECTION-C

Marks: 21

NOTE: Attempt any three of the following questions. All questions carry equal marks.

- Define biophysics, biochemistry and bio-economics.
 - Describe the importance of biodiversity.
- Differentiate between prokaryotic cell and eukaryotic cell.
 - Describe the significance of meiosis.
- Write down the effects of pH and concentration of substrate on enzyme activity.
 - Describe alcoholic fermentation.
- Explain the role of oral cavity and pharynx in digestive system.
 - Describe cardiac cycle.