

Note: There are three sections in this paper i.e. Section A, B & C.

VERSION : B

Time Allowed: 20 Minutes

"Section-A"

Marks: 18

INSTRUCTIONS:

- Attempt this section on the MCOs Answer Sheet only.
- Use black ball point or marker for shading only one circle for correct option of a question.
- No mark will be awarded for cutting, erasing, over writing and multiple circles shading.

Q. 1. Choose the correct option i.e. A,B,C, or D.

1. The example of non competitive inhibitor is .....
  - (A) Cyanide
  - (B) Sulphonamide
  - (C) Antibiotics
  - (D) Drugs
2. The end product of non-cyclic electron pathway is .....
  - (A) ATP
  - (B) NADPH<sub>2</sub>
  - (C) Glucose
  - (D) Both A & B
3. Microsporum Furfur causes .....
  - (A) Ergot
  - (B) Dandruff
  - (C) Ringworm
  - (D) Athlete's foot
4. Which of the following vascular plant is said to be living fossil?
  - (A) Psilotum
  - (B) Rhynia
  - (C) Equisetum
  - (D) Salaginella
5. Number of DNA molecule(s) in the nucleoid of bacterium is .....
  - (A) 3
  - (B) 4
  - (C) 12
  - (D) 1
6. The membrane bounded space of endoplasmic reticulum is called .....
  - (A) Cisternae
  - (B) Stroma
  - (C) Lamellae
  - (D) Microtubule
7. Lack of Vitamin B produces .....
  - (A) Blindness
  - (B) Beriberi
  - (C) Anaemia
  - (D) Red eyes
8. Which of the following factor does not effect the rate of enzyme reaction?
  - (A) Enzyme concentration
  - (B) Light intensity
  - (C) Substrate concentration
  - (D) Temperature
9. The tissue most likely to provide flexible support is .....
  - (A) Epidermis
  - (B) Sclerenchyma
  - (C) Parenchyma
  - (D) Collenchyma
10. Normal human heartbeat per minute is .....beats.
  - (A) 80
  - (B) 85
  - (C) 72
  - (D) 100
11. Optimum temperature for mammalian enzyme is .....
  - (A) 30 °C
  - (B) 40 °C
  - (C) 90 °C
  - (D) 50 °C
12. Optimum pH range for stomach lipase is about .....
  - (A) 4.0 to 5.0
  - (B) 6.7 to 7.0
  - (C) 7.0 to 8.0
  - (D) 6.1 to 6.8
13. Carotenoid pigments absorb which type of light wave length?
  - (A) 500-600 nm
  - (B) 300-400 nm
  - (C) 670-700 nm
  - (D) 390-430 nm
14. The sequence of dark reactions in photosynthesis was investigated by .....
  - (A) Melvin Calvin
  - (B) Van Neil
  - (C) Griffith
  - (D) Robert Hook
15. Sugar cane and maize are examples of which type of plants?
  - (A) C<sub>3</sub> plant
  - (B) C<sub>4</sub> plant
  - (C) Xerophytes
  - (D) Halophytes
16. The viral core or capsid of HIV is made from which type of protein?
  - (A) gp 120
  - (B) gp 41
  - (C) p 24
  - (D) p 17
17. A special protein carrier in plasma membrane is called .....
  - (A) Catalase
  - (B) Lipase
  - (C) Permease
  - (D) Arginase
18. The number of hydrogen bonds between guanine and cytosine are .....
  - (A) 1
  - (B) 2
  - (C) 3
  - (D) None of these

**"Section-B"**

Marks: 40

Q. 2. Write short answers of any Ten (10) of the following parts. Each part carries equal marks.

- (i) Write note on Ribosome.
- (ii) Differentiate between Condensation and Hydrolysis.
- (iii) Enlist at least four functions of protein.
- (iv) What is Dinucleotide?
- (v) Write note on Co-factor.
- (vi) What is Chemiosmotic ATP Synthesis?
- (vii) What is Photorespiration?
- (viii) Differentiate between Cyclic and Non Cyclic photo phosphorylation.
- (ix) What are Viroids? What type of disease they cause?
- (x) Differentiate between Archaea and Bacteria.
- (xi) How Angiosperm differ from Gymnosperm?
- (xii) Discuss Polymorphism.
- (xiii) Write four types of plants on the basis of water availability.

**"Section-C"**

Marks: 27

Note: Answer any Three (3) questions. Each question carries equal marks.

- Q. 3. Discuss in detail the vascular tissues and their role in transport of materials in plants.
- Q. 4. Write in detail the liver function in human body.
- Q. 5. Write a detail note on any three groups of plant like protists.
- Q. 6. Write comprehensive notes on any Two of the following.
  - (a) Physical methods to control harmful bacteria.
  - (b) DNA as a Hereditary Material.
  - (c) Inhibitors and their kinds.