

NOVEMBER/DECEMBER 2018

BABC25C — BIOCHEMISTRY – II

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is glycolysis?
2. What is the purpose of the Mg^{2+} ion in glycolysis?
3. What is Ketosis?
4. Name the enzyme deficiencies associated with phenyl ketonuria and alkaptonuria.
5. What role do the enzymes have in biological system?
6. How do enzymes lower the activation energy?
7. What is central dogma of molecular biology?
8. Comment on Okazaki fragments.
9. What are the symptoms of Beri Beri?
10. Why vitamins are known as protective foods?

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write a detailed account on the urea cycle.

Or

- (b) Explain briefly about deamination and transamination reactions.

12. (a) Give an account on the causes of dehydration.

Or

- (b) Explain in detail about Type I and Type II glycogen storage diseases.

13. (a) Describe briefly about the induced fit theory.

Or

- (b) Explain the classification of enzyme with examples.

14. (a) Discuss in detail about rolling circle mechanism of replication of DNA.

Or

- (b) Explain in detail about genetic code.

2

1651

15. (a) Write an account on biological functions of vitamin B₆ and B₁₂.

Or

- (b) Describe about the basic functions of Fat soluble vitamins.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Discuss the HMP shunt pathway and give its importance.

17. Explain in detail about diabetes mellitus disorder.

18. Discuss about the Michaelis-Menton equation and its biological understanding.

19. Discuss about the scientific proof on DNA as genetic material.

20. Elaborately discuss on the sources of vitamins A and D and their deficiency symptoms in humans.

3

1651