25124

M.Sc. DEGREE EXAMINATION, APRIL 2018.

Genetics and Genomics

SECOND SEMESTER

Paper IV — ENERGY METABOLISM

Time : Three hours Maximum : 75 marks

(No additional sheet will be supplied)

PART A — (5 × 3 = 15 marks)

Answer any FIVE questions.

Each question carries 3 marks.

Each answer should not exceed 1 page.

1. Free energy.
2. SOD.
3. Pyruvate dehyraogenage complex.
4. Anaerobic respirations.
5. Mcardle's disease.
6. Glyoxylate cycle.
7. Cholesterol.
8. Membrane lipids.

PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. What are high energy compounds? Explain their role in metabolism.

Or

10. Give an account on regulation of ATP producing pathways.

11. Explain the formation of lactic acid by homo lactate fermentation.

Or

12. Explain the oxidation of acetyl Co A by TCA cycle.

13. How blood glucose levels are regulated by insulin and glucagon?

Or

14. Write about pentose phosphate pathway and its significance.

15. Give an account on transamination and oxidative deamination of amino acids.

Or

16. Explain the biosynthesis of phospholipids.