

2015

M.Sc.

4th Semester Examination

BIOCHEMISTRY

PAPER—BIC-401

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer all questions.

Group — A

1. Answer any *five* questions from the following : 5×2
- (a) What is diabetic neuropathy ?
 - (b) What is Cushing's syndrome ?
 - (c) What is the difference between osteogenesis (imperfecta) and osteoporosis ?
 - (d) What is metabolic acidosis ?
 - (e) What is Hashimoto's thyroidites ?
 - (f) Which hormone is known as heat regulatory hormone and from where it is secreted ?
 - (g) Name two glycogen storage diseases with biochemical reason.
 - (h) What is sex dimorphism ?

(Turn Over)

Group — B

Answer any *two* questions from the following : 5×2

2. How does Vitamin E act as antioxidant – explain? 5
3. Describe the biochemical reason of Tay-sachs disease and mention its clinical complication. 5
4. Describe the role of kidney in maintaining blood buffer system. 5
5. Briefly discuss regulation of calcium level in blood by hormone. 5

Group — C

Answer any *two* questions from the following : 2×10

6. Why is PkU known as metabolic disorder? State the symptoms of PkU. How can it be treated? What is hemosiderosis? 2+2+3+3
7. How does cortisol exert its effects on cell metabolism? 'Glucose 6 phosphate dehydrogenase deficiency is related to hemolytic anemia' – Explain. 5+5
8. How does thyroid disorder affect woman's body? State the function of antidiuretic hormone. Discuss about the deficiency syndrome of ADH. 5+2+3
9. What are neurons? What are resting membrane potential and action potentials? Describe with diagram the polarisation and depolarisation phenomena of nerves cell membrane. 2+3+5