

MANIPAL UNIVERSITY

FIRST BDS DEGREE EXAMINATION – JUNE 2014

SUBJECT: GENERAL HUMAN PHYSIOLOGY AND BIOCHEMISTRY (ESSAY)

Saturday, June 14, 2014

Time: 14:15 – 17:00 Hrs.

Maximum Marks: 60

- ✍ **Answer Section “A” and Section “B” in two separate answer books.**
 ✍ **Draw diagrams and flow charts wherever necessary.**

SECTION – A : HUMAN PHYSIOLOGY: 30 MARKS

1. Enumerate the hormones secreted from anterior pituitary. Describe the actions of growth hormone. List the differences between gigantism and acromegaly. (3+5+2 = 10 marks)
2. **Write short notes:**
 - 2A. Name the enzymes of pancreatic juice. Describe the functions of each. (1+3 = 4 marks)
 - 2B. Briefly describe the functions of thalamus. Add a note on thalamic syndrome. (3+1 = 4 marks)
 - 2C. Enumerate the events occurring in neuro-muscular transmission. Name two blockers of neuro-muscular transmission. (3+1 = 4 marks)
 - 2D. Explain the role of baroreceptors in regulation of blood pressure. (4 marks)
 - 2E. Name the anticoagulents and explain their mechanism of action. (1+3 = 4 marks)

SECTION – B : BIOCHEMISTRY: 30 MARKS

- ✍ **Answer the following questions:**
- 3A. Describe the regulation of plasma calcium level.
 - 3B. Explain the steps of β -oxidation of palmitic acid. Add a note on its energetics. (5+5 = 10 marks)
 4. **Explain the following:**
 - 4A. Different types of enzyme inhibition, with suitable examples
 - 4B. Digestion of carbohydrates
 - 4C. Structure of tRNA
 - 4D. Detoxification reaction with suitable examples(3 marks \times 4 = 12 marks)
 5. **Write briefly on:**
 - 5A. Cellulose
 - 5B. Deficiency manifestations of vitamin D
 - 5C. Lipoproteins
 - 5D. Von – Gierke’s disease(2 marks \times 4 = 8 marks)