

FIRST B.H.M.S  
EXAMINATION - 2017 - OCT  
PHYSIOLOGY & BIOCHEMISTRY PAPER - II (New Syllabus)

100 Mark

3 Hours

**Instructions:**

1. Attempt all questions from each section
2. Figures to the right indicate full marks
3. Draw figure wherever necessary.
4. Write separate sections on separate answer sheets.

**Section I**

- |     |  |           |    |
|-----|--|-----------|----|
| Q-1 | Discuss functions of hypothalamus in detail.   | <b>OR</b> | 15 |
| Q-1 | Describe the composition, functions & mechanism of secretion with regulation of gastric juice. |           | 15 |
| Q-2 | Digestion and absorption of carbohydrates in detail.   | <b>OR</b> | 15 |
| Q-2 | a. Functions of basal ganglia  |           | 08 |
|     | b. Describe digestion of lipids and beta oxidation of fatty acid                               |           | 07 |
| Q-3 | Write short notes (any three)  |           | 15 |
|     | a. Draw labeled of Dorso-medial pathway  |           |    |
|     | b. Properties of nerve fibers  |           |    |
|     | c. Properties, composition and functions of saliva   |           |    |
|     | d. Movements of small intestine  |           |    |
|     | e. Taste pathway   |           |    |
| Q-4 | Give answer in one to two sentences.   |           | 05 |
|     | a. Define synapse  |           |    |
|     | b. Define reflex arc   |           |    |
|     | c. Name the receptor of auditory sensation and place where it is suited?                       |           |    |
|     | d. Name the bile pigments  |           |    |
|     | e. Define protein. Enumerate its classification  |           |    |

**Section II**

- |     |   |                              |    |
|-----|---|------------------------------|----|
| Q-1 | Enumerate secretions responsible for calcium homeostasis. Discuss physiology of parathyroid hormones. | <b>OR</b>                    | 15 |
| Q-1 | Explain functions of testosterone and write a note on spermatozoa.                                    |                              | 15 |
| Q-2 | Enumerate hormones secreted by adrenal cortex. Describe physiology of glucocorticoids in detail       | <b>OR</b>                    | 15 |
| Q-2 | a. Describe in detail about insulin.  |                              | 08 |
|     | b. Describe in detail the ovarian changes during menstrual cycle                                      |                              | 07 |
| Q-3 | Write short notes (any three)   |                              | 15 |
|     | a. Dwarfism   | b. Puberty changes in female |    |
|     | c. Krebs's cycle  | d. Vit. C                    |    |
|     | e. Classification of carbohydrates  |                              |    |
| Q-4 | Give answer in one to two sentences.  |                              | 05 |
|     | a. Enumerate hormones secreted by post. Pituitary gland   |                              |    |
|     | b. Define menopause   |                              |    |
|     | c. Define balance diet  |                              |    |
|     | d. Which are the sources of Vit. A?   |                              |    |
|     | e. Define BMR.  |                              |    |