



**HAY-M20174**

Seat No. \_\_\_\_\_

**First Year M. B. B. S. Examination**

**July - 2017**

**Physiology**

Time : **3** Hours ]

[ Total Marks : **50**

- Instructions :** (1) Answer each section in separate answer book.  
(2) Draw diagrams wherever necessary.  
(3) Illegible answers will not carry marks.

**SECTION - I**

- 1** Define muscle tone. Write in detail about physiological anatomy, mechanism and functions of muscle spindle and its role in stretch reflex. **8**

**OR**

- 1** What is emotion? Write in detail about physiological basis of reward and punishment in process of learning and emotion. **8**

- 2** Write short notes on : **8**  
(1) Action potential

**OR**

Nerve injury

- (2) Excitation Contraction coupling of smooth muscle

**OR**

Molecular basis of skeletal muscle contraction

- 3** (a) Write in detail about cortico-spinal track and detailed about upper motor neuron lesion. **5**

- (b) Explain in 2-3 sentences : **4**

(1) What is lambert-eaton syndrome?

(2) What is Chronaxie?

(3) What is secondary active transport and give its two examples?

(4) What is molecular motors?

## SECTION - II

4 Write in detail about synthesis, action and regulation of Adrenal medullary hormone. 8

**OR**

4 What is calorogenic action of Thyroid hormone? Explain synthesis, functions and regulation of Thyroid hormone. 8

5 Write short notes on : 8

(1) Sense of smell

**OR**

Impedance matching

(2) Placenta

**OR**

Oral contraception

6 (a) What is Hypocalcemic tetany? Write about hormonal regulation of Calcium. 5

(b) Explain in 2-3 sentences : 4

(1) What is UMAMI taste?

(2) What is Hornor's syndrome?

(3) What is angular acceleration and name its receptor?

(4) What is precocious puberty?

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