

MANIPAL UNIVERSITY

FIRST MBBS DEGREE EXAMINATION – SEPTEMBER 2016

SUBJECT: PHYSIOLOGY– PAPER I (ESSAY)

Tuesday, September 13, 2016

Time: 10:20 – 13:00 Hrs.

Maximum Marks: 80

✍ **Answer ALL the questions.**

✍ **Essays:**

1. Describe the actions and regulation of secretion of hormones of posterior pituitary. (10 marks)
2. Describe the synaptic transmission in detail. Compare it with the neuromuscular transmission. (10 marks)

3. **Short answer questions:**

- 3A. Mention the cause and features of acromegaly. What is *Laron dwarfism*?
- 3B. Explain how thyroid stimulating hormone influences the thyroid function.
- 3C. Name the hormones of islets of Langerhans. List the factors that stimulate and inhibit the release of these hormones.
- 3D. Draw the neural circuit to illustrate inverse stretch reflex. Mention the significance of this reflex.
- 3E. Explain using a diagram, why upper half of face is not affected by the supranuclear type of facial palsy.
- 3F. Explain the organization of thalamic nuclei. List the features of thalamic syndrome.
- 3G. Explain the cause and features of syringomyelia affecting the upper thoracic cord.
- 3H. Draw and label parts of iridocorneal angle. Mention the importance of the structure.
- 3I. Name the receptors for visual acuity. Give the specific location of these receptors. List any two stimulus factors that affect visual acuity.
- 3J. List the special features of auditory pathway. Give the location of auditory area.
- 3K. Explain the role of calmodulin in smooth muscle contraction. What is plasticity of smooth muscles?
- 3L. What is EMG (electromyogram)? Explain its normal pattern and clinical use.
- 3M. Write briefly on stages of spermatogenesis.
- 3N. Explain the role of corpus luteum.
- 3O. Define and give the physiological basis of male pseudohermaphroditism.

(4 marks × 15 = 60 marks)



