

MANIPAL ACADEMY OF HIGHER EDUCATION
FIRST YEAR B.P.T. DEGREE EXAMINATION – JUNE 2018

SUBJECT: ANATOMY
(NEW REGULATION)

Monday, June 18, 2018

Time: 10.00-13.00 Hours.

Max. Marks: 80

✍ **Answer the following questions.**

1. **Explain the knee joint under the following headings:**

- 1A. Type and bones articulating
- 1B. Ligaments
- 1C. Movements and muscles producing those movements
- 1D. Applied anatomy

(3+6+7+4 = 20 marks)

2. **Explain the ulnar nerve under the following headings:**

- 2A. Origin and root value
- 2B. Its course
- 2C. Structures supplied by it
- 2D. Applied anatomy

(3+5+7+5 = 20 marks)

3. **Write briefly on:**

- 3A. Midbrain
- 3B. Section of spinal cord
- 3C. Axillary nerve
- 3D. Common peroneal nerve
- 3E. Internal capsule

(5 marks × 5 = 25 marks)

4. **Write short notes on:**

- 4A. Right coronary artery
- 4B. Mediastinal surface of left lung
- 4C. Lumbricals
- 4D. Thyroid gland
- 4E. Classification of synovial joints

(3 marks × 5 = 15 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION
FIRST YEAR B.P.T. DEGREE EXAMINATION – JUNE 2018

SUBJECT: PHYSIOLOGY
(NEW REGULATION)

Tuesday, June 19, 2018

Time: 10.00-13.00 Hrs.

Max. Marks: 80

Answer ALL questions.

1. Essay:

- 1A. Describe the short term regulation of arterial blood pressure.
- 1B. Name any two ascending tracts. Draw labeled diagram of these two tracts. Describe their functions.

(10 marks × 2 = 20 marks)

2. Write short notes on the following:

- 2A. Functions of hypothalamus
- 2B. Role of chemoreceptors in the regulation of respiration
- 2C. Differences between skeletal and smooth muscle
- 2D. Primary and secondary active transport mechanisms
- 2E. Functions of plasma proteins
- 2F. Diabetes mellitus
- 2G. Micturition
- 2H. Functions of thyroid hormones

(5 marks × 8 = 40 marks)

3. Short answer questions:

- 3A. Name two factors which increase glomerular filtration rate.
- 3B. Name the forms of carbon dioxide transport in blood.
- 3C. Mention any two functions of estrogen.
- 3D. Describe cephalic phase of gastric juice secretion.
- 3E. List the types of white blood cells.
- 3F. Draw a diagram of the cerebral cortex and label in it the primary somatosensory area and primary motor areas.
- 3G. Mention any two clinical features of Cushing's syndrome.
- 3H. Name any two factors that increase heart rate.
- 3I. Tabulate the agglutinogens and agglutinins in a person with 'A' blood group.
- 3J. Give the causes of first and second heart sounds.

(2 marks × 10 = 20 marks)



Reg. No.

MANIPAL ACADEMY OF HIGHER EDUCATION
FIRST YEAR BPT/B.Sc. RT DEGREE EXAMINATION – JUNE 2018

SUBJECT: BIOCHEMISTRY
(NR/2015 BATCH)

Wednesday, June 20, 2018

Time: 10.00-11.30 Hours

Max. Marks: 40

Answer ALL the questions.

1. Describe the reactions of TCA cycle. Mention its site and subcellular site. (8 marks)
2. Classify enzymes giving one example for each class. (6 marks)
3. **Write short notes on the following:**
 - 3A. Digestion of dietary polysaccharides
 - 3B. Components of the complexes in electron transport chain
 - 3C. Biochemical basis of symptoms in diabetes mellitus
 - 3D. Structure of DNA with diagram(4 marks × 4 = 16 marks)
4. **Answer the following questions:**
 - 4A. Write normal serum levels of total protein and urea. Mention one condition each in which they are altered.
 - 4B. Define saturated and unsaturated fatty acids with one example each.
 - 4C. Define positive nitrogen balance with one example.
 - 4D. Define gluconeogenesis and name two precursors for it.
 - 4E. Name the serum lipoproteins.(2 marks × 5 = 10 marks)

