

First Year (New) Pharmacy
HUMAN ANATOMY AND PHYSIOLOGY
(105)

Time : Three Hours

Maximum Marks : 80

- Note :** i) Attempt total six questions. Question No.1 is compulsory.
 From the remaining questions attempt any five.
 ii) Illustrate your answer with neat sketches wherever necessary.

1. Attempt any five questions. 5×2=10

- a) Write the name of cartilages present in our body.
- b) Enlist the different connective tissues.
- c) Write number of bones present in following body part
 - i) Whole body
 - ii) Head
 - iii) Face
 - iv) Neck
- d) Name the element that initiates muscle contraction.
- e) Explain reflex action.
- f) Write the type of cholinergic and adrenergic receptors.

2. Attempt any two: 2×7=14

- a) Draw labelled diagram of the following tissues.
 - i) Simple columnar epithelium
 - ii) Adipose tissue
 - iii) Compact bone
 - iv) Cardiac muscle

b) Differentiate between the following (any two)

- i) Compact bone and spongy bone
- ii) Sensory nerves and motor nerves
- iii) Smooth muscles and cardiac muscles

c) Describe briefly the different types of joint.

3. Attempt any two. 2×7=14

- a) Discuss the physiology of muscle contraction and relaxation.
- b) Write notes on any two:
 - i) Synapse
 - ii) Hypothalamus
 - iii) Medulla oblongata

c) Discuss briefly the disorders related to RBC.

4. Attempt any two: 2×7=14

- a) Draw a well labelled diagram of lymph gland. Write the functions of lymph node.
- b) Draw a labelled diagram of internal structure of Heart.
- c) Explain Cardiac cycle.

5. Attempt any two: 2×7=14

- a) Draw a labelled diagram of villus.
- b) Write the functions of liver.
- c) Write the functions and regulation of insulin.

6. Attempt any two 2×7=14

- a) Draw a labelled diagram of Nephron.
- b) Explain the physiology of Urine formation.
- c) Write a short note on:
 - i) Hypertension
 - ii) ECG

7. Attempt any two: 2×7=14

- a) Draw a labelled diagram of respiratory system. Discuss the chemical factors controlling respiration.
- b) Explain the physiology of taste.
- c) Draw a labelled diagram of skin.

8. Explain (any four) 14

- a) Myopia
- b) Glaucoma
- c) Asthma
- d) Anaemia
- e) Thrombosis
- f) Rh. Group