

# MANIPAL ACADEMY OF HIGHER EDUCATION

FOURTH SEMESTER BSc. HEALTH SCIENCE DEGREE EXAMINATION - JULY 20223  
SUBJECT: BHS-206 - INTRODUCTION TO HUMAN ANATOMY AND PHYSIOLOGY  
(MAKEUP)

Marks: 75

Duration: 180 mins.

## SECTION A: ANATOMY (25 MARKS)

Answer all the questions.

1. Answer the following questions briefly.

- 1A) Describe the ovary. (2)
- 1B) Name the arteries supplying the stomach. (2)
- 1C) Name the coverings of the testis. (2)
- 1D) Write about the synovial joint. (2)
- 1E) Describe corpus callosum. (2)
- 1F) List the properties of cardiac muscle. (2)
- 1G) Write the Brodmann's number of primary somatosensory and primary motor areas. (2)

2. Answer the following questions.

- 2A) Describe the pituitary gland. (3)
- 2B) Describe the kidney. (3)

3.. Answer the following question.

- Name the parts of respiratory system. Explain the structure of the lungs. (5)

## SECTION B: PHYSIOLOGY (25 MARKS)

4. Answer the following questions briefly.

- 4A) Describe the changes observed when a red cell is placed in hypotonic & hypertonic solutions. (2)
- 4B) Draw a neat labelled diagram of neuromuscular junction. Mention the cause for Myasthenia gravis. (2)
- 4C) Mention any two features of B12 deficiency anemia. (2)
- 4D) Mention any two causes for peptic ulcer disease. (2)
- 4E) Mention the cause and symptoms of diabetes insipidus. (2)
- 4F) With the help of flow chart describe the regulation of estrogen secretion. (2)
- 4G) Mention any two functions of middle ear. (2)

5.. Answer the following questions.

- 5A) In a tabular column, mention the agglutinin /s and agglutinin /s present in ABO system of blood grouping. (3)
- 5B) Describe the mechanism of micturition in the form of a flowchart. (3)

Answer the following question.

- 6) i) Calculate alveolar ventilation of a subject with tidal volume of 600 ml, anatomical dead space of 150 ml and respiratory rate of 20/ min. (5)
- ii) Describe the role of medullary (central) chemoreceptors in regulation of respiration.

