Instructions –  (1) All Questions are Compulsory.

(2) Answer each next main Question on a new page.

(3) Illustrate your answer with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination.

Marks

1. Attempt any EIGHT of the following: 16

a) Define Anatomy and Physiology.

b) Name fundamental tissues of the body.

c) What is serum?

d) Explain true and false ribs.

e) Name the bones of Shoulder Joint.

f) Define the term Dyspnea.

g) Define cell. Enlist its components.

h) Define Erythropoiesis.

i) Give the names of four Cranial Nerves.

j) Explain the terms fossa and foramen.


l) Name the hormones secreted by Adrenal glands.
2. **Attempt any FOUR of the following:**


   b) Enlist the hormones secreted by posterior pituitary gland and explain their effects.

   c) Draw and label L.S. of kidney

   d) Define lymph? Give functions of lymphatic system.

   e) Explain the terms Atherosclerosis and Myocardial Infarction.

   f) What will be the effect of sympathetic stimulation on –
      
      (i) Salivary gland
      
      (ii) Blood vessels

      (iii) Bronchi

3. **Attempt any FOUR of the following:**

   a) Draw well labelled diagram of Internal Ear.

   b) Explain the term Hypothalamus with its functions.

   c) Define the term portal circulation? Give its significance.

   d) Explain physiology of muscle contraction.

   e) Describe composition and function of Gastric Juice.

   f) Explain role of kidney in maintenance of water balance of body.

4. **Attempt any FOUR of the following:**

   a) Explain the term anemia? Enlist its types and explain megaloblastic anemia.

   b) Name the cartilages of larynx? Give functions of larynx.

   c) Classify Epithelial Tissue.

   d) Explain the terms Thrombosis and embolism.

   e) Explain properties of skeletal muscle tissue.

   f) Describe the mechanism of coagulation of blood.
5. Attempt any FOUR of the following: 12
   a) Define Glomerular filtration and Glomerual filtration rate.
   b) Explain Physiology of Respiration.
   c) Explain the terms Odema and Nephritis.
   d) Define and give normal values of
      (i) Vital Capacity
      (ii) Tidal Volume
      (iii) Residual volume
   e) Compare Autonomic Nervous System (ANS) with Central Nervous System (CNS).
   f) State various types of Synovial Joints with examples.

6. Attempt any FOUR of the following: 16
   a) Explain the structure and function of Ovaries.
   b) Draw diagram of conducting system of heart. Explain cardiac cycle.
   c) Draw V. S. of skin. Explain role of skin in maintenance of body temperature.
   d) Explain the term menstruation. Describe in detail the phases of Menstrual Cycle.
   e) Give the composition of bile and its functions.
   f) Describe:
      (i) Hyperthyroidism
      (ii) Hypothyroidism