

17436

**11819**

**3 Hours / 100 Marks**

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
  - (2) Answer each next main Question on a new page.
  - (3) Illustrate your answers with neat sketches wherever necessary.
  - (4) Figures to the right indicate full marks.
  - (5) Assume suitable data, if necessary.
  - (6) Use of Non-programmable Electronic Pocket Calculator is permissible.
  - (7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

**Marks**

**1. Attempt any TEN :**

**20**

- (a) Write any two functions of joints.
- (b) Define : Cardiac output.
- (c) Give two functions of skin.
- (d) Define inspiratory reserve volume.
- (e) List the juices secreted by digestive system.
- (f) State any two functions of eye.
- (g) Give classification of bones.
- (h) List different types of valves present in heart.
- (i) List different types of cell organelles.
- (j) List the instrument related to digestive system.

- (k) List the endocrine glands.
- (l) State the function of tympanic membrane.
- (m) State the function of auditory nerve.
- (n) List the organs of urinary system.

**2. Attempt any FOUR :****16**

- (a) Describe epithelial tissues and their functions.
- (b) Describe polarization and repolarization of cell with suitable diagram.
- (c) Explain anatomy of heart in detail.
- (d) Describe the structure of skin.
- (e) Give the function of following digestive juices :
  - (i) Pancreatic juice
  - (ii) Intestinal juice
- (f) Describe CNS with suitable diagram.

**3. Attempt any FOUR :****16**

- (a) Draw the structure of cell and mention functions of following cell organelles :
  - (i) Endoplasmic reticulum
  - (ii) Golgi apparatus
- (b) Classify the blood groups and explain the term universal donor.
- (c) Draw the structure of artery and vein. Give functions of each.
- (d) Draw a labelled diagram of respiratory system.
- (e) Explain ANS with suitable diagram.
- (f) Describe anatomy of eye with neat sketch.

**4. Attempt any FOUR :****16**

- (a) Describe ball and socket joint with suitable diagram.
- (b) Give functions of muscular and nervous tissue.
- (c) Draw structure of cardiac muscle and give its functions.
- (d) State the function of following respiratory organs :
  - (i) Pharynx
  - (ii) Trachea
- (e) Describe male reproductive system with suitable diagram.
- (f) Describe the structure of neuron.

**5. Attempt any FOUR :****16**

- (a) Describe the concept of Rhesus system.
- (b) Explain circulation of blood inside heart.
- (c) Define :
  - (i) Expiratory capacity
  - (ii) Expiratory reserve volume
- (d) Explain the role of stomach and intestine in digestive system.
- (e) Describe the process of urine formation with suitable diagram.
- (f) Enlist hormones secreted by female reproductive system. Give functions of each hormone.

**P.T.O.**

**6. Attempt any FOUR :****16**

- (a) Define :
    - (i) Pulse rate
    - (ii) Blood pressure
  - (b) Draw diagram for mechanism of respiration and explain it in detail.
  - (c) Enlist the organs of female reproductive system and write functions of any two organs.
  - (d) Describe the structure of spinal cord in detail.
  - (e) Explain mechanism of hearing.
  - (f) Enlist the hormones secreted by pituitary gland and state functions of any two hormones.
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