

23124

3 Hours / 80 Marks



20114

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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.
  - (6) In case student has attempted sub-question of Q. 3 more than once, only first attempt should be considered for assessment.

**Marks**

**1. Attempt any SIX of the following:**

**30**

- a) Describe the structure and functions of skin.
- b) Explain how circulation of blood takes place through heart chambers with neat labeled diagram of L.S. of human heart.
- c) Define Blood. Write classification and functions of leucocytes.
- d) Give the functions of liver.
- e) Explain mechanism of urine formation. Write any five functions of kidney.
- f) Sketch and label central nervous system and explain various functions of medulla oblongata.
- g) Classify bones. Differentiate between male and female pelvis.

**2. Attempt any TEN of the following:**

**30**

- a) Give the composition and functions of saliva.
- b) What are the functions of lymphatic system? Draw a well labelled diagram of 'Lymph node'.
- c) Why pancreas is called exo-endocrine gland?
- d) Draw a neat labelled sketch of human cell.
- e) Give the composition and functions of CSF.
- f) Enlist different types of blood cells with their normal values.
- g) Explain the structure and functions of ovary.
- h) Define and give normal values of:
  - i) Vital capacity
  - ii) Tidal volume
  - iii) Residual volume
- i) Define hormones. Explain the role of hormones secreted by Adenohypophysis.
- j) Define blood pressure. Explain all factors that modify blood pressure.
- k) Name fundamental tissues of body. Classify simple epithelium with their locations.

**3. Attempt ALL of the following:**

**20**

- a) The exchange of gases take place in ----- in the respiratory system.
- b) Name any two cranial nerves.
- c) Name the largest cell in the human body.

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- d) Mechanical and chemical processes which break down ingested food into small molecules is called as -----.
- e) Structure of the body away from the midline is called as -----.
- f) The fluid that enters the glomerulus is:
- Serum
  - Blood
  - Water
  - Mucus
- g) Name the bones of auditory ossicles.
- h) The function of the thoracic cage is:
- Protect the stomach
  - Protect the Kidneys
  - Protect the heart and lungs
  - Protect the brain and spinal cord
- i) Which of the following is not property of muscle?
- Elasticity
  - Degradability
  - Contractility
  - Excitability
- j) Define cardiac cycle.
- k) Testosterone hormone is secreted by ----- cells.
- l) Which statement is correct in case of cone cells in retina?
- Stimulated in dim light and do not produce colour vision.
  - Responsible for colour vision
  - Stimulated in bright light which do not produce colour vision.
  - Stimulated in dim light which produce colour vision.
- m) Define the term Anatomy.
- n) Give an example of ball and socket joint.
- o) Acetylcholine in the nerve ending is broken down by an enzyme -----.
- p) What is ECG?
- q) Which receptor is present in the nose?
- Photoreceptors
  - Gustatory receptors
  - Olfactory receptors
  - Phonoreceptors
- r) Choose the correct sequence of respiratory organs in human
- Pharynx - Larynx - Bronchi - Trachea - Alveolus
  - Pharynx - Larynx - Trachea - Bronchi - Alveolus
  - Pharynx - Bronchi - Larynx - Trachea - Alveolus
  - Pharynx - Trachea - Bronchi - Larynx - Alveolus
- s) Name various types of cartilages in body.
- t) Posture, balance and equilibrium of body is regulated by which part of the brain?
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