

00809

16172

3 Hours / 80 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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

**Marks**

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

**16**

- (a) Define :
  - (i) Anaemia
  - (ii) Reproduction
- (b) Classify epithelial tissues.
- (c) Draw a well labelled diagram showing a simple reflex arc.
- (d) Enlist the muscles of neck & give their functions.
- (e) Name different vertebrae of vertebral column.
- (f) Why pituitary gland is called as master gland ?
- (g) Define lymph. Mention different components of lymphatic system.
- (h) What is Puberty ?
- (i) Draw and label the structure of cell.
- (j) Give the normal values of the following :
  - (i) Pulse
  - (ii) Cardiac output
  - (iii) Stroke volume
  - (iv) Heart rate

[ 1 of 4 ]

**P.T.O.**

**2. Attempt any FOUR of the following :****12**

- (a) Define Respiration. Explain the mechanism of respiration.
- (b) Draw a well labelled diagram showing internal structure of Human Ear.
- (c) Classify Muscular Tissue. Explain anatomy and physiology of different types of muscular tissue.
- (d) Differentiate between male and female pelvis.
- (e) Give composition and functions of blood plasma.
- (f) What do you mean by :
  - (i) Arthritis
  - (ii) Menopause
  - (iii) Polycythemia

**3. Attempt any FOUR of the following :****12**

- (a) Define and classify joints with suitable examples.
- (b) What is a neuromuscular junction ? Explain physiology of neuromuscular transmission.
- (c) Differentiate between CNS & ANS. What is effect of parasympathetic stimulation on
  - (i) Lachrymal glands
  - (ii) Heart
- (d) What is shock ? Explain various types of shocks.
- (e) Classify, give normal count and functions of blood corpuscles.
- (f) What do you mean by
  - (i) Renal calculi
  - (ii) Atherosclerosis

**4. Attempt any FOUR of the following :****12**

- (a) Define :
  - (i) Hypertention
  - (ii) Oedema
  - (iii) Meningitis
- (b) Draw a labelled diagram showing saggital section of eye.
- (c) Classify bones based on their microscopic structure. List important functions of bones.
- (d) With the help of suitable diagram explain circulation of blood through heart.
- (e) Give functions of uterus, fallopian tubes and ovaries.
- (f) What do you mean by motor, sensory and mixed nerves ? Give one example of each.

**5. Attempt any FOUR of the following :****12**

- (a) Define blood pressure. Explain factors maintaining blood pressure.
- (b) With the help of labelled diagram explain the microscopic structure of kidney.
- (c) What are taste buds ? Explain physiology of taste.
- (d) Mention the parts of alimentary tract. Give one function of each part.
- (e) Give functions of cerebrum and medulla oblongata.
- (f) Mention the bones forming :
  - (i) Cranium
  - (ii) Thoracic cage

**P.T.O.**

**6. Attempt any FOUR of the following :****16**

- (a) Define 'blood clot'. Explain mechanism of blood clotting. Mention factors affecting same.
  - (b) Enlist and discuss different functions of kidney.
  - (c) Define hormones. Enlist any three endocrine glands and give their secretions.
  - (d) Define Digestion. Explain chemical digestion of food.
  - (e) Draw and describe microscopic structure of ovary.
  - (f) Give composition and function of :
    - (i) CSF
    - (ii) Semen
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