

15162**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. Solve any EIGHT of the following :****16**

- (a) Name the bones of upper limbs.
- (b) Define the term physiology.
- (c) Draw a well labelled diagram of a simple living cell.
- (d) Give examples of Ball and socket joint.
- (e) Name the hormones secreted by Anterior Pituitary.
- (f) Give the composition of pancreatic juice.
- (g) What are auditory ossicles ?
- (h) Name the cartilages of Larynx.
- (i) Give the location and functions of Biceps and Triceps.
- (j) Mention functions of spleen.
- (k) What are the abnormal constituents of urine ?
- (l) Give the names of six cranial nerves.

P.T.O.

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

- (a) Draw a well labelled diagram of V.S. of skin.
- (b) Give composition and functions of cerebro-spinal fluid.
- (c) Give composition and functions of saliva.
- (d) Explain how kidneys help to maintain blood pressure.
- (e) Describe systemic circulation of blood.
- (f) What do you mean by
 - (i) Muscle Tone
 - (ii) Muscle fatigue

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

- (a) Draw and label T.S. of spinal cord.
- (b) Explain digestion of proteins.
- (c) Why pancreas is called exo-endocrine gland ?
- (d) Differentiate between male and female pelvic girdle.
- (e) What is Oedema ? Give its causes.
- (f) What will be the effect of sympathetic nervous system stimulation on
 - (i) G.I.T.
 - (ii) Eye
 - (iii) Blood vessels

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

- (a) Explain with a neat diagram, flow of blood through the heart.
- (b) Describe the physiology of muscle contraction.
- (c) Explain the terms universal donor and universal recipient.
- (d) Explain how the thoracic cage helps in process of breathing.
- (e) Give the classification of tissues and describe cardiac muscle.
- (f) Define the terms (i) Myopia (ii) Mydriasis.

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

- (a) Draw and label diagram of L.S. of kidney.
- (b) Distinguish between sympathetic nervous system and parasympathetic nervous system.
- (c) Differentiate between diabetes mellitus and diabetes insipidus.
- (d) What do you mean by polycythemia and Agranulocytosis ?
- (e) What physical and physiological changes occur in females during puberty ?
- (f) Define and give normal values of (any **two**) :
 - (i) Tidal volume
 - (ii) Vital capacity
 - (iii) Expiratory reserve volume

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

- (a) Draw well labelled diagram of ear and explain mechanism of hearing.
 - (b) Describe the Anatomy of Male Reproductive System.
 - (c) Give the composition of Blood and explain the functions of Haemoglobin and Neutrophils.
 - (d) Define cardiac cycle. Describe its events.
 - (e) What is Portal Circulation ? Give its significance.
 - (f) Describe functions of liver.
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