

22347

11819

3 Hours / 70 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.

Marks

1. Attempt any FIVE of the following :

10

- (a) List different blood groups.
- (b) Define :
 - (i) Heart Rate
 - (ii) Cardiac Output
- (c) List any two diseases related to respiratory system.
- (d) List the organs of digestive system.
- (e) Draw structure of thyroid gland.
- (f) List any two diseases related to nervous system.
- (g) Name the instruments related to urinary system.

2. Attempt any THREE of the following :

12

- (a) Give properties of cardiac muscles.
- (b) State the function of following parts of respiratory system :
 - (i) Nose
 - (ii) Pharynx
 - (iii) Larynx
 - (iv) Trachea
- (c) Calculate the cardiac output, if a person has the resting heart rate of 72 beats/minute and resting stroke volume of 70 ml/beat. Judge whether person will need medication on the basis of provided data.
- (d) Draw female reproductive system and state the function of each organ.

- 3. Attempt any THREE of the following : 12**
- (a) Choose the blood group in the case of medical emergency, where there is unavailability or shortage of patient's blood group. Justify the choice.
 - (b) Name any two hormones along with its functions secreted by the pituitary gland.
 - (c) Draw neat labelled diagram of cell.
 - (d) Name the instruments related to cardiovascular system.
- 4. Attempt any THREE of the following : 12**
- (a) Describe the process of gases exchange in the alveoli.
 - (b) A patient is found to have abnormally high concentration of glucose in his urine. Identify the portion of nephron that is most likely the cause of this excess concentration of glucose with justification. Also draw a labelled diagram showing structure of nephron.
 - (c) Higher proportions of people living in hilly region are suffered from goitre. Justify it.
 - (d) Give the functions of bone.
 - (e) Draw neat labelled diagram of eye.
- 5. Attempt any TWO of the following : 12**
- (a) Explain urinary system with labelled diagram.
 - (b) Explain anatomy of ear with neat sketch.
 - (c) Describe ANS and PNS in detail.
- 6. Attempt any TWO of the following : 12**
- (a) Describe the functions of various digestive juices.
 - (b) Define any four respiratory parameters with its sketch.
 - (c) A person after consuming alcohol walks clumsily. Justify it and describe main parts of brain in short.
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