# 12425 3 Hours / 70 Marks

Seat No.					
----------	--	--	--	--	--

### Instructions:

- (1) All Questions are *compulsory*.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data, if necessary.
- (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

## 1. Attempt any FIVE of the following:

10

- (a) List any two functions of cell.
- (b) Define cardiac output and give its normal value of human being.
- (c) Draw the structure of nephron.
- (d) List any two hormones secreted by male reproductive system.
- (e) State the function of retina.
- (f) List any two endocrine glands.
- (g) List any two functions of blood.

#### 2. Attempt any THREE of the following:

12

- (a) Draw the structure of female reproductive system.
- (b) Describe the mechanism of urine formation.



[1 of 4] P.T.O.

313328 [2 of 4]

- (c) Identify the part of the brain that helps in co-ordinating muscle movements and draw a neat diagram of human brain.
- (d) Identify the position of pituitary gland and mention its function.

## 3. Attempt any THREE of the following:

**12** 

- (a) Identify the blood group which is considered as a universal donor and universal recipient and give its reason.
- (b) Explain conduction system of the heart.
- (c) List the organs of digestive system and state the function of spleen.
- (d) Identify following instruments that is related to respiratory system. State its function:
  - (i) EEG machine
  - (ii) Audiometer
  - (iii) Spirometer
  - (iv) ECG machine

## 4. Attempt any THREE of the following:

**12** 

- (a) Explain the role of stomach and liver in digestive system.
- (b) Give the significance of following hormone in female reproductive system :
  - (i) Oestrogen
  - (ii) Progesterone
- (c) Describe the structure of skin.
- (d) Identify the part of eye that absorbs, focuses and directs incoming light to the retina and draw the neat labelled diagram of eye.
- (e) State the function of following:
  - (i) Brochi
  - (ii) Trachea

5.	Attempt any TWO of the following:				
	(a)	Describe different types of tissues with neat sketch and give its function.			
	(b)	Describe the anatomy of ear with neat sketch.			
	(c)	Give the significance of cardiac muscle and describe its properties.			
6.	Attempt any TWO of the following:				
	(a)	Describe the composition of blood.			
	(b)	Describe the structure of heart.			
	(c)	Give the significance of following juices in digestive system:			
		(i) Gastric juice			
		(ii) Pancreatic juice			
		(iii) Bile juice			

[3 of 4]

313328

[4 of 4]