

This question paper contains 3 printed pages]

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S. No. of Question Paper : 2417

Unique Paper Code : 2232701

F-4

Name of the Paper : Human Physiology

Name of the Course : B.Sc. (Hons.) : Allied Course

Semester : IV

Duration : 3 Hours

Maximum Marks : 75

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt Five questions in all.

Question No. 1 is compulsory. Draw diagrams wherever required.

1. (a) Define the following terms :

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- (i) Peristalsis
- (ii) Depolarization
- (iii) Pulmonary Ventilation
- (iv) Ultrafiltration.

(b) Differentiate between the following :

10

- (i) External and internal respiration
- (ii) Meissner's and myenteric plexus
- (iii) Isotropic and anisotropic band
- (iv) Spermatogenesis and spermeiogenesis
- (v) Adenohypophysis and neurohypophysis.

P.T.O.

- (c) Expand the following : 4
- (i) GnRH
 - (ii) PNS
 - (iii) ADH
 - (iv) CCK.
- (d) Give the location and function of the following : 6
- (i) Semilunar valve
 - (ii) Sarcoplasmic reticulum
 - (iii) Leydig cells.
- (e) Fill in the blanks :
- (i)serves as the normal pace maker of the heart in humans. 3
 - (ii) HCl is secreted by.....cells.
 - (iii)is the regulatory protein of the sarcomere.
2. Explain in detail the digestion and absorption of lipids in the human digestive system. 12
3. Discuss the major changes in the ovary, uterus and their hormonal regulation during different phases of menstrual cycle. 12
4. (a) Give an account of hormones of anterior pituitary and write their functions. 9
- (b) Briefly discuss the negative feedback mechanism in regulation of hormone secretion. 3

5. Discuss different phases of cardiac cycle and relate them with the ECG. 12
6. (a) Draw a neat and well labelled diagram of nephron. 3
- (b) Discuss the mechanism of urine formation. 9
7. Write short notes on any *three* of the following : 3×4=12
- (a) Neuromuscular junction
- (b) Carbon dioxide transport in the blood
- (c) Role of pancreatic acini
- (d) Structure of neuron
- (e) Propagation of nerve impulses through myelinated nerves.