

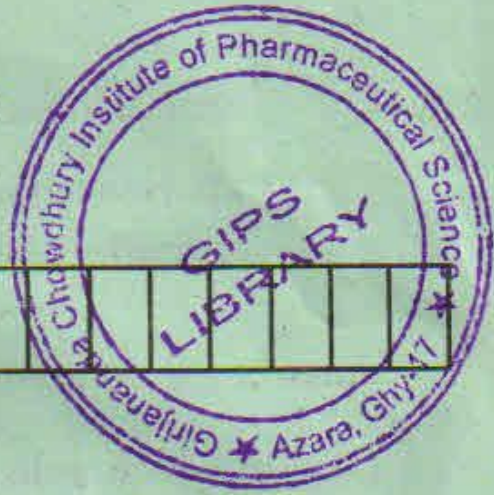
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PY 132102

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SCANNED

2016

**B. Pharm. 1st Semester End-Term Examination**

**HUMAN ANATOMY AND PHYSIOLOGY - I**

Full Marks – 100 Pass Marks – 35 Time – Three hours

The figures in the margin indicate full marks for the questions.

**GROUP - A**

Answer *all* the questions.

1. Choose the correct answer of the following :

1×3=3

(a) Pancreas is a :

(holocrine gland / apocrine gland / heterocrine gland).

(b) Cardiac muscles are :

(striated and involuntary in nature / striated and voluntary in nature / non-striated and involuntary in nature).

[Turn over

(c) Haemoglobin is :

(a polysaccharide / a protein / a hormone / an enzyme).

2. Answer the following questions :  $1 \times 3 = 3$

(a) In which vein thoracic duct of the lymphatic system pourse its contents ?

(b) In which area of human heart tricuspid valve is present ?

(c) Name the instrument used clinically to measure blood pressure.

3. Write true or false of the following :  $1 \times 3 = 3$

(a) In an ECG graph, the period of relaxation in heart beat is denoted by 'S'.

(b) Rheumatoid heart disease is a disorder of heart associated with viral infection.

(c) Nucleolus acts as the power house of a cell.

4. Fill in the blanks of the following :  $1 \times 3 = 3$

(a) In a vertebra, the spinal cord passes through a passage called \_\_\_\_\_.

- (b) Epithelia that consists of more than one layer is termed as \_\_\_\_\_ tissue.
- (c) Blood of AB<sup>(-)</sup> group contains \_\_\_\_\_ agglutinin.
5. (a) How many pairs of ribs are present in human thoracic cage ? What is meant by floating ribs ?
- (b) What is Rh factor ? Why is it so named ?
- (c) What is a neuron and a synapse ?  $2 \times 3 = 6$
6. Write the characteristic features of a synovial joints. 3
7. What is erythroblastosis foetalis ? Name the types of anemia, mentioning the deficiency factor, in which size of RBCs is :
- (a) larger, (b) smaller.  $1 + (1 + 1) = 3$
8. State the difference between systolic and diastolic pressure. Why presence of excess salt in diet may cause hypertension ?  $1 + 2 = 3$
9. Define the following :  $1 + 1 + 1 = 3$
- (a) Goblet cells, (b) Tendon, (c) Ligament.

## GROUP-B

Answer any *eight* questions.

10. Draw a neat and labelled diagram to illustrate the ball and socket joint. 5
11. Discuss the functions of lymphatic system. 5
12. Write a brief note on erythropoiesis. 5
13. (a) What are the causes of unidirectional flow of blood in our body ?  
(b) Mention the four properties of cardiac muscle.  
(c) Name the special junctional tissues of mammalian heart. 1+2+2=5
14. (a) What is portal circulation ?  
(b) What is pulmonary circulation ?  $2\frac{1}{2}+2\frac{1}{2}=5$
15. Write a note on lysosomes. 5
16. Draw and label a neat diagram showing the various events of cardiac cycle. 5
17. Name the different varieties of lymphocytes mentioning their functions. 5
18. State the functions of spleen. 5

19. What is refractory period ? How does it differ in skeletal and cardiac muscles ? 1+4=5

### GROUP-C

Answer any *three* questions.

20. Write an account on various disorders of the joints. 10
21. Describe the structure and functions of mitochondria with suitable diagrams. 10
22. Show the total number of various vertebrae in the vertebral column with the help of a neat diagram. 10
23. Discuss the different types of muscles involved in movement. 10
24. Write brief notes on any *four* :  $2\frac{1}{2} \times 4 = 10$
- (a) Function of heparin and platelets in the blood of human being.
  - (b) Angina pectoris.
  - (c) Congestive heart failure.
  - (d) Hypertension.
  - (e) Electrocardiogram.