

Total No. of printed pages = 3

ER 20-14 T

Roll No. of candidate

--	--	--	--	--	--	--	--	--	--

25/08/22

2022

BINA CHOWDHURY CENTRAL LIBRARY  
(GIMT & GIPS)  
27/28, Hatkrishnapara,  
Kalyanahalli, Mysore 575017

D.Pharm. 1<sup>st</sup> Year End-Term Examination

Part - I

HUMAN ANATOMY AND PHYSIOLOGY

Full Marks - 80

Time - Three hours

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

1. Objective type (Answer all 20 questions) (20 × 1 = 20)
- (i) Albumin is one of the plasma protein is
- (a) Liver (b) Adrenal gland  
(c) Spleen (d) Pancrease
- (ii) Normally cardiac cycle takes \_\_\_\_\_ seconds to complete.
- (a) 0.1 (b) 0.008  
(c) 0.001 (d) 0.8
- (iii) Pancreatic juice is stimulated by the release of
- (a) Secretin (b) Enterokinase  
(c) Cholecystokinin (d) Both (a) and (b)
- (iv) Which of the following structure of a synapse has the neurotransmitter
- (a) Schwann cells (b) Synaptic cleft  
(c) Synaptic knobs (d) Synaptic vesicles
- (v) Which blood vessels surround the loop of henle?
- (a) Vasa recta (b) Efferent arterioles  
(c) Interlobular arteries (d) Peritubular capillaries
- (vi) Graafian follicles are characteristically found in the
- (a) Ovary of frog (b) Ovary of mammals  
(c) Thyroid of mammal (d) Testis of mammal
- (vii) This hormone is responsible for fight or flight response
- (a) Insulin and glucagon (b) Epinephrine and norepinephrine  
(c) Thyroxine and melatonin (d) Oestrogen and Progesterone

[Turn over

(viii) \_\_\_\_\_ is the graveyard of RBC.

- (a) Bone marrow (b) Spleen  
(c) Thymus (d) None of the above

(ix) The enzyme present in tears is

- (a) Lysozyme (b) Zymase  
(c) Diastase (d) Lypase

(x) Nociceptor is a type of \_\_\_\_\_ receptors.

- (a) Mechano (b) Photo  
(c) Pain (d) Chemo

(xi) Pulmonary vein carries \_\_\_\_\_

- (a) Oxygenated blood (b) Deoxygenated blood  
(c) Glucose-deficient blood (d) CO<sub>2</sub> laden blood

(xii) A transitional epithelium found in

- (a) Kidney (b) Liver  
(c) Heart (d) Ureter and renal pelvis

(xiii) What does axial skeleton consists of

- (a) Ribs and sternum (b) Vertebral column  
(c) Skull (d) All the above

(xiv) Discovery of blood groups was done by

- (a) Karl Landsteiner (b) Allen  
(c) Albert (d) Karl Benz

(xv) Addison's disease is due to \_\_\_\_\_

(xvi) There are \_\_\_\_\_ chambers in the heart.

(xvii) \_\_\_\_\_ is the first cervical vertebra.

(xviii) Splanchnology is the study of \_\_\_\_\_

(xix) Cretinism is caused due to deficiency of \_\_\_\_\_

(xx) Define the circumduction movement.

2. Short Answer (Answer 10 out of 11)

(10 × 3 = 30)

- (a) Enlist the summary function of blood. Mention the importance of Rh factor.  
(b) Explain the mechanism by which air enters and leaves the lungs?  
(c) Explain the physiology of pain.

- (d) How many pairs of cranial nerves are present in human body and what are their functions.
- (e) What are meninges? Write their name.
- (f) Explain the sliding filament theory of muscle contraction.
- (g) Write the difference between smooth muscle and skeletal muscle.
- (h) Explain the structure of nephron with the help of labelled diagram
- (i) Draw and label the structure of testis.
- (j) Elaborately discuss about pregnancy.
- (k) What are the different hormones produced by thyroid gland? Write the functions of thyroid hormones.

3. Long Answer Questions (Answer 6 out of 7)

(6 × 5 = 30)

- (a) Differentiate between bone and cartilage. Explain with diagram the development and growth of bone.
- (b) Discuss briefly about the lymphatic system and enlist the various functions of lymph.
- (c) Define menstrual cycle. Explain its various phases with a diagram.
- (d) Explain the mechanism of vision. Explain its eye parts and process in brief.
- (e) What are the types of tissue found in the human body? Write a shortnote on connective tissue.
- (f) Discuss various disorders due to malfunctioning of thyroid gland.
- (g) What is reflex action? Explain the mechanism of reflex action with a suitable example.

\_\_\_\_\_

BINA CHOWDHURY CENTRAL LIBRARY  
 (ICMT & TIPS)  
 22/23 Hatkhali, Chapara,  
 Kharoshahi, Dibrugarh-786017