

Enrolment Number

Total No. of printed pages = 03

Monsoon, 2023

B. Pharm Semester Examinations

Human Anatomy & Physiology-I - Theory

Course Code: BP101T

Library, GCU

Full Marks – 75

Time – 3hours

The figure in the margin indicates full marks for the questions.

1. Multiple Choice Questions (Answer all questions):

(20 x 1= 20)

- I. What is the main function of the rods in the eye?
- a) Depth perception b) Color vision
c) Vision in dim light d) Accommodation of near vision
- II. Which matured cell in the blood do not have nucleus?
- a) RBC (b) WBC
c) Platelets d) None of the above
- III. Pulse can be checked at the:
- a) Brachial artery b) Carotid artery
c) Subclavian vein d) Popliteal vein
- IV. Actin interact with _____ for muscle contraction.
- a) TNF- α (b) Myosin
c) Calcium d) Tyrosine
- V. Which of the following nerve is known as cranial nerve I?
- (a) Optic b) Olfactory
c) Vagus d) Facial
- VI. Bleeding time is dependent on:
- a) Platelets (b) Clotting factors
c) Both d) None of the above
- VII. Iliofemoral ligament prevents:
- a) Hyperextension of hip joint b) Hyperextension of ankle joint
c) Hyperextension of knee joint d) None of the above

- VIII. Vitamin B12 is required for?
 a) Formation of RBC b) Formation of WBC
 c) Maturation of RBC d) Maturation of WBC
- IX. Bones are connected to each other by:
 a) Tendons b) Ligaments
 c) Collagen d) Cartilage
- X. Cardiac output is about:
 a) 5 L b) 10 L
 c) 7 L d) 1 L
- XI. In the middle ear which bone is stirrup shaped?
 a) Malleus b) Stapes
 c) Incus d) Temporal bone
- XII. Gustatory cells are present in:
 a) Nose b) Eyes
 c) Ear d) Tongue
- XIII. Antihemophilic factor is:
 a) Factor VIII b) Factor IX
 c) Factor VII d) Factor X
- XIV. Parasympathetic nerves don't innervate _____
 a) Atria b) Ventricles
 c) SA node d) AV node
- XV. Which of the following bone is called beauty bone in humans?
 a) Maxilla b) Clavicle
 c) Fibula d) Sternum
- XVI. The joint present in the knee is:
 a) Pivot b) Ball & Socket
 c) Hinge d) Saddle
- XVII. One of the first bone to begin ossification:
 a) Clavicle b) Scapula
 c) Ulna d) Radius
- XVIII. Spinal nerve carries:
 a) Motor signal b) Sensory signal
 c) Autonomic signal d) Both a & b

XIX. Microglia are:

- a) Immune cells for brain
- b) Immune cells for liver
- c) Immune cells for kidney
- d) All of the above

XX. Pericardial effusion _____ preload.

- a) Increases
- b) Decreases
- c) Doesn't affect
- d) None of the above

2. Short Answers (Any seven)

(7 x 5 = 35)

[Word limit: 500]

- a) Explain the cardiac cycle. What is isovolumetric contraction?
- b) Which physiological mechanism is responsible for the body's ability to sustain life? Explain it with a schematic diagram.
- c) Explain myasthenia gravis, its pathophysiology and symptoms.
- d) Explain the physiology of muscle contraction (cross-bridge cycle). Describe the function of tropomyosin during muscle contraction.
- e) Explain the effect of sympathetic and parasympathetic nervous system on body organs.
- f) Write a note on acute and chronic otitis media along with symptoms and complications.
- g) Explain the erythroblastosis fetalis in detail. Why does erythroblastosis fetalis not occur during the first pregnancy?
- h) What are the potential consequences of lymphatic system dysfunction? Explain the role of spleen in health and disease.
- i) What are cranial nerves? Enlist cranial nerves along with its functions.

3. Long Answers (Answer any two)

(2 x 10 = 20)

[Word limit: 1000]

- a) What is acute coronary syndrome (ACS)? Explain the pathophysiology. If you were a clinician, what immediate intervention you would have done to save the patient's life during ACS?
(2+3+5)
- b) Describe about the composition of the blood. Explain ABO and Rh type blood groupings. Discuss transfusion reaction and its symptoms. (2+4+4)
- c) Classify anaemia according to Whiby's and Wintrobe's classification system along with examples. Enumerate symptoms of anaemia. (8+2)