

B.PHARM.
FIRST SEMESTER (REPEAT)
HUMAN ANATOMY AND PHYSIOLOGY-I
BP-101 T

(Use separate answer scripts for Objective & Descriptive)

Duration : 3 hrs.

Full Marks : 75

(PART-A : Objective)

Time : 20 min.

Marks : 20

Choose the correct answer from the following:

1X20=20

1. What is the controlled condition?
 - a. It receives the input
 - b. Disruptions caused in homeostasis
 - c. Variable which is monitored
 - d. Receives output
2. Materials move out of a cell by the fusion with the plasma membrane of vesicles formed inside the cell is_____.
 - a. Endocytosis
 - b. Phagocytosis
 - c. Pinocytosis
 - d. Exocytosis
3. _____develop from monocytes and destroy bacteria and cell debris by phagocytosis.
 - a. Macrophages
 - b. Reticular fibers
 - c. Fibroblast
 - d. Mast cells
4. Which directional term can be used to describe 'away from the midline'?
 - a. Anterior
 - b. Superior
 - c. Lateral
 - d. Medial
5. Ceruminous glands are found in:
 - a. Lips
 - b. Forehead
 - c. External auditory canal
 - d. Skin of groin
6. When muscle contracts upon stimulation, calcium ions bind to _____, which exposes the binding sites for the myosin cross bridges to attach to
 - a. Actin
 - b. Myosin
 - c. Both a and b
 - d. Troponin
7. The appendicular skeleton has_____ bones.
 - a. 126
 - b. 80
 - c. 96
 - d. 128
8. The calcaneus forms the_____ of the foot.
 - a. Toes
 - b. Heel
 - c. Sole
 - d. None of the above
9. During blood coagulation thromboplastin is released from:
 - a. RBC
 - b. Blood plasma
 - c. Leucocytes
 - d. Damaged tissues
10. The hormone erythropoietin stimulates red blood cell production in the red bone marrow. Where in the body is erythropoietin produced?
 - a. Spleen
 - b. Kidney
 - c. Liver
 - d. Thyroid

11. Which of the following white blood cells is capable of phagocytosis?
a. Basophils
b. Eosinophils
c. Lymphocyte
d. Neutrophils
12. What lymphatic structure absorbs lipid in the intestine?
a. Lacteal
b. Lymphatic trunk
c. Lymphatic duct
d. Collecting vein
13. Which of the following nerves are responsible for the movement of the eye?
a. Abducens nerve
b. Trochlear nerve
c. Oculomotor nerve
d. All of the above
14. Which nerve controls the Peripheral Nervous System which stimulates contraction and relaxation of the smooth muscle in the GI tract?
a. X
b. V
c. VI
d. VII
15. Sympathetic nerves arise from:
a. Thoracolumbar outflow
b. Craniosacral outflow
c. Cranial outflow
d. All of the above
16. The sympathetic nervous system postganglionic neuron releases which neurotransmitters?
a. Acetylcholine
b. Serotonin
c. Norepinephrine
d. Dopamine
17. Myocardial contractility is best correlated with the intracellular concentration of:
a. Na^+
b. K^+
c. Ca^{2+}
d. None of the above
18. P wave is due to:
a. atrial repolarization
b. atrial depolarization
c. atrial systole
d. atrial diastole
19. Cardiac output is the product of _____ x _____.
a. Stroke volume, heart rate
b. Heart rate, peripheral vascular resistance
c. Cardiac reserve, stroke volume
d. Stroke volume, ventricular end-diastolic volume
20. The left side of the heart is the pump for _____.
a. Systemic circulation
b. Pulmonary circulation
c. Both a and b
d. Lymphatic circulation

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(PART-B : Descriptive)

Time : 2 hrs. 40 min.

Marks : 35

[Answer any seven (7) questions]

1. Give an account on the formed elements of blood. 5
2. Give a brief account on the four principal type of cells found in the epidermis. What are the functions of the skin? 3+2=5
3. Write a short note on lymph nodes and its functions. 5
4. List out the cranial nerves with their functions. 5
5. Describe the electrocardiogram representation. 5
6. Short note on the common errors of refraction. 5
7. Describe long term control of blood pressure. 5
8. Describe primary and secondary active transport with suitable examples. 5
9. Based on the shape, bones are classified into five types. Explain. 5

(PART-C : Long type questions)

[Answer any two (2) questions]

1. What is homeostasis? Explain positive and negative feedback mechanism with suitable examples. What are the different forms of intracellular signaling? 2+5+3=10
2. Enlist the various clotting factors. Explain about extrinsic, intrinsic and common pathway involved in blood clotting cascade. 10
3. Give a brief description on Cranial bones with suitable diagram. 10

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