

Question Paper

Exam Date & Time: 04-Dec-2017 (09:30 AM - 12:30 PM)



MANIPAL UNIVERSITY

**MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES
END SEMESTER THEORY EXAMINATIONS - NOVEMBER 2017
PROGRAM : BPHARM SEMESTER I
DATE : 04-12-2017
TIME : 9:30AM - 12:30PM
Human Anatomy and Physiology-I [PHA-BP101T]**

Marks: 75

Duration: 180 mins.

I Multiple Choice Questions (MCQs)

Answer all the questions.

Section Duration: 30 mins

- 1) RBC from a healthy individual would have most likely lysed when placed in (1)
0.3% NaCl 0.9% NaCl 1.2% NaCl 2% NaCl
- 2) Collor bone is known as (1)
Scapula Clavicle Humerus Ulna
- 3) The bone which is carefully examined when manual strangulation is a suspected cause of death (1)
Hyoid Ribs Clavicle Fibula
- 4) Which of the following enzymes is not synthesized by the pancreas (1)
DNAase Proelastase Aminopeptidases Pepsin
- 5) Epithelium containing thin cells arranged like floor tiles (1)
Cuboidal Squamous Columnar Transitional
- 6) In knee joint, reduction of friction by lubricating joint is done by (1)
Synostosis Synovial fluid Interosseous membrane Syndesmosis
- 7) Organelle referred as the "powerhouses" of the cell (1)
Mitochondria Ribosome Golgi complex Peroxisomes
- 8) Outer membrane surrounding and protecting heart (1)
Myocardium Endocardium Pericardium Epicardium
- 9) Left Atrium receives blood from (1)
Inferior venacava Superior Venacava Pulmonary veins Coronary sinus
- 10) Gap junctions are made up of proteins called (1)
Clathrin Connexin Cadherin Calcineurin
- 11) Extrinsic pathway is activated by the release of (1)
Tissue factor Hageman factor Contact factor Factor XII
- 12) Abnormal rhythm as a result of a defect of conduction system of heart (1)
Hypertension Cardiac arrest Atherosclerosis Arrhythmia
- 13) Heme is converted to bilirubin mainly in the (1)
Kidney Liver Spleen Heart
- 14) The skin color vary from pale yellow to black due to pigment (1)
Sebum Melanin Melatonin Calcitriol
- 15) Drugs often used to relax skeletal muscles (1)
Acetylcholine Noradrenaline Neostigmine Curare
- 16) Substances that enter a cell are digested through endocytosis by (1)
Mitochondria Lysosomes Ribosome Golgi complex

The medulla of lymph node contains (1)
Dendritic cells T cells B cells All the above

Vitamin involved in synthesis of clotting factors (1)
Vitamin A Vitamin D Vitamin E Vitamin K

19) Number of bones in the axial skeleton (1)
80 126 206 28

20) The concave medial border of the stomach is called (1)
Greater curvature Lesser curvature Pylorus Fundus

II Long Answers

Answer all the questions.

- 1) Describe the events in cardiac cycle. Explain different waves, intervals and segments of ECG. (10)
(6+4)
- 2) With the help of a flowchart explain the process of haemopoiesis. Mention the morphological properties of RBC. (10)
(8+2)

III Short Answers

Answer all the questions.

- 1) Compare and contrast skeletal, cardiac and smooth muscle (5)
- 2) Explain the process of acid secretion by parietal cells in the stomach (5)
- 3) Describe the classification of epithelial tissue with example (5)
- 4) Explain how an action potential occurs in SA node and ventricular contractile fiber. (5)
- 5) Discuss the process of absorption of lipids in small intestine (5)
- 6) Describe the functions of cell membrane proteins (5)
- 7) Explain positive and negative feedback mechanism with examples (5)

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