

Question Paper

Exam Date & Time: 28-Dec-2017 (09:30 AM - 12:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES
END SEMESTER THEORY EXAMINATIONS- DECEMBER 2017 - JANUARY 2018

PROGRAM: BPHARM SEMESTER 1

DATE: 28/12/2017

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) The imaginary line which divides the body into equal right and left side (1)
Transverse plane Frontal plane Midsagittal plane Coronal plane
- 2) If the concentration of solutes in the ECF and ICFs are equal, the cell is in a(n) solution. (1)
hypertonic hydrophobic saturated isotonic
- 3) Which of the following organelles function primarily in decomposition reactions? (1)
Ribosomes Golgi bodies Endoplasmic reticulum Peroxisome
- 4) Which cell belongs to connective tissue (1)
Cardiac muscle Adipocyte Keratinocyte Langerhan cell
- 5) Which of the following regulates the body temperature (1)
Muscle tissue Skin Thyroid & Adrenal gland All of them
- 6) Which of the following statement is true for periosteum of bone (1)
protects the bone by assisting in fracture repair has osteogenic cells which enable bone to grow in thickness, but not in length It is composed of an outer fibrous layer of dense irregular connective tissue and an inner osteogenic layer that consists of cells All of the above
- 7) Suture between the skull bone is example for following type of joint (1)
Fibrous joint Syndesmoses joint Synchondroses joint Cartilaginous joint
- 8) Platelets in the blood get activated upon exposure to (1)
cAMP Thromboxane A2 Vitamin C none of them
- 9) Blood grouping is basically possible because of presence of following (1)
Antigens on RBCs MHCs on WBCs MHCs on RBCs Antigens on WBCs
- 10) The cardiovascular centre in the brain medulla oblongata has input from followings (1)
Proprioceptors Chemical receptors Barrier receptors all of them
- 11) Blood pressure is defined as (1)
Pressure exerted by the blood on the walls of blood vessels 120/80 120 mmHg 80 mmHg
- 12) The major neurotransmitter at the neuromuscular junction is (1)
Acetylcholine Nicotine Muscarine Calcium
- 13) In general the regulatory protein for contraction in smooth muscle is (1)
Calmodulin Actin Myosin Tropomyosin
- 14) Hepatic blood circulation is one of the examples of (1)
Portal circulation Collateral circulation Circulation with anastomoses Parallel circulation

- 5) How many number of bones are there in vertebral column of human being (1)
24 26 28 31
- 16) Enteric nervous system has (1)
Myenteric plexuses Mesenteric plexuses Mesenteric ganglia Enteric ganglia
- 17) pH of gastric juice is (1)
4 to 6 6 to 7 8 to 10 1.5 to 2
- 18) Digestion and absorption of food starts from (1)
Mouth Stomach Intestine Stomach and intestine
- 19) Site of glycolysis (1)
Liver Cytosol Kidney Inner membrane of mitochondria
- 20) The contact-dependent signalling or cell-extracellular signalling is called as (1)
Juxtacrine Paracrine Exocrine Autocrine

II Long Answers

Answer all the questions.

- 1) With the neat flow diagram explain the formation of blood cells and its regulation (8 + 2) (10)
- 2) Discuss the digestion and absorption of lipids. Explain the role of liver in lipid absorption (10) (8 + 2)

III Short Answers

Answer all the questions.

- 1) Define negative and positive feedback systems in the body to maintain the homeostasis. (5)
 With example discuss positive feed-back mechanism.
- 2) With an example, discuss any five transportation mechanisms across the cell membrane. (5)
- 3) List different types of cells present in bone tissue and discuss their contribution to the homeostasis of skeletal system in body. (5)
- 4) Describe the anatomy of synovial joint. Explain the functions of synovial fluid. (5)
- 5) Discuss the diagnostic importance of ECG. (5)
- 6) Describe the anatomy of different capillaries in the body. (5)
- 7) What is the difference between lymph and plasma? How do they contribute for the homeostasis of body fluid? (5)

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