

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY

LONERE-RAIGAD-402 103

Winter Semester Examination- December-2019

Course: B. Pharm

Semester: I

Subject with Subject Code: Human Anatomy and Physiology-I (BP101T)

Marks: 75

Date: 16/12/2019

Duration:3hrs

Instructions: i) All questions are compulsory

ii) Figures to the right indicate full marks

iii) Draw the diagrams or flow charts wherever necessary.

Q. No.1 Attempt following multiple choice questions:

(20 Marks)

(a) _____ are the fundamental structural and functional unit of the body.

a) Tissues

b) Organs

c) Cells

d) Atoms

(b) _____ is also known as powerhouse of cells.

a) Lysozome

b) Golgi apparatus

c) Ribosome

d) Mitochondria

(c) These are the tiny granules in cell composed of RNA and proteins.

a) Nucleus

b) Mitochondria

c) Ribosomes

d) Cytoplasm

(d) Transfer of particles too large to cross cell membranes occurs by _____.

a) Pinocytosis

b) Diffusion

c) Osmosis

d) Reverse osmosis

(e) _____ are voluntary muscles involved in movement of limbs.

- a) Smooth muscle
- b) Skeletal muscle
- c) Cardiac muscle
- d) Inter costal muscle

(f) The process by which a parent cell divides into two daughter cells is known as _____.

- a) Mitosis
- b) Meiosis
- c) Protein synthesis
- d) anabolism

(g) Blood is which type of tissue?

- a) Connective tissue
- b) Epithelial tissue
- c) Nervous tissue
- d) Adipose tissue

(h) Which blood cells does not contain nucleus?

- a) WBCs
- b) RBCs
- c) Platelets
- d) Lymphocytes

(i) Which blood vessels carry oxygenated blood from lungs towards heart?

- a) Pulmonary artery
- b) Pulmonary veins
- c) Superior vena cava
- d) Coronary sinus

(j) Cardiac output is calculated by _____.

- a) Stroke volume X Peripheral resistance
- b) Heart rate X Blood pressure
- c) Heart rate X Peripheral resistance
- d) Stroke volume X Heart rate

(k) Eyes are supplied by the _____ nerve.

- a) Olfactory nerve
- b) Vagus nerve
- c) Optic nerve
- d) Hypoglossal nerve

(l) Bone forming cells are called as _____ .

- a) Osteoblast
- b) Osteoclast
- c) Osteocytes
- d) Osteons

(m) Out of following which is not a part of vertebral column.

- a) Sacrum
- b) Lumbar
- c) Coccyx
- d) Mandible

(n) The eardrum is also called as _____ .

- a) Auditory ossicles
- b) Vestibule
- c) Tympanic membrane
- d) Acoustic meatus

(o) Blood platelet count below $150\ 000/\text{mm}^3$ is called _____ .

- a) Leukaemia
- b) Polycythaemia
- c) Thrombocytopenia
- d) Granulocytopenia

(p) The pacemaker of heart is _____ .

- a) SA node
- b) AV node
- c) Bundle of His
- d) Purkinje fibre

(q) Out of following which are the sensory nerves of smell.

- a) Vestibulocochlear nerves
- b) Glossopharyngeal nerves
- c) Trigeminal nerves
- d) Olfactory nerves

(r) Cataracts arise when there is _____ .

- a) Increased intraocular pressure
- b) Opacity of lens
- c) Difficulty in night vision
- d) Colour blindness

(s) The point where the nerves communicate with muscles is called _____ .

- a) Reflex arc
- b) Neuromuscular junction
- c) Neuroeffector junction
- d) Neuroeffector junction

(t) Which blood group is called as Universal donar?

- a) AB
- b) B
- c) O
- d) A

Q. No.2 Attempt any TWO of the following:

(20 Marks)

- a) Explain the structure of nucleus. Describe in detail sequence of events occur during protein synthesis.
- b) Discuss anatomy of spinal cord. Explain in detail functional components of reflex arc.
- c) Explain the structure of heart with neat labeled diagram. Discuss in detail Cardiac cycle.

Q.No. 3 Attempt any SEVEN of the following:

(35 Marks)

- a) Explain active transport across cell membrane.
- b) Describe physiology of vision.
- c) Explain physiology of muscle contraction.
- d) Classify tissue. Give structure and functions of epithelial tissue.
- e) Explain the composition and functions of blood.
- f) Describe cranial nerves with their functions.
- g) Explain Electrocardiogram.
- h) Explain ABO system of blood group.
- i) Explain hemolytic disease of Newborns.

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