



BRAINWARE UNIVERSITY

Term End Examination 2019 - 20

Programme – Bachelor of Optometry / Bachelor of Science in Physician Assistant

Course Name – Human Anatomy

Course Code – BOPTO101/BPA101

(Semester – 1)

Time allotted : 2.5 Hours

Full Marks : 60

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group –A

(Multiple Choice Type Question)

20 x 1 = 20

1. *Choose the correct alternative from the following (Answer any Twenty)*
 - (i) The basic unit of contraction is the
 - a. Myosin
 - b. Actin
 - c. Z-Lines
 - d. Sarcomeres
 - (ii) The functional partners of bone is
 - a. Tendon
 - b. Ligament
 - c. Skeletal muscle
 - d. Fasciae
 - (iii) This is the explanation of how muscles contract action potential?
 - a. Lock and Key Hypothesis
 - b. Cell Theory
 - c. Mendels laws
 - d. Sliding filament model
 - (iv) After intense exercise, what helps repay the body's oxygen debt?
 - a. Stretching
 - b. Breathing
 - c. Eating
 - d. Thinking
 - (v) What is the name of the tissues which helps in protection and support of the body?
 - a. Muscular tissue
 - b. Nervous tissue
 - c. Connective tissue
 - d. Epithelial tissue

- (vi) Name the epithelium which consists of two or more than two layers of cells that protect the core tissues?
- Pseudostratified columnar epithelium
 - Simple columnar epithelium
 - Stratified epithelium
 - Simple cuboidal epithelium
- (vii) Name the tissue, which stores triglycerides (fats)?
- Regular connective tissue
 - Areolar tissue
 - Adipose tissue
 - Epithelial tissue
- (viii) Which of the following is NOT found in axon?
- Endoplasmic reticulum
 - Neurofibrils
 - Mitochondria
 - Microtubules
- (ix) Which of the following does not act as a neurotransmitter?
- Acetylcholine
 - Epinephrine
 - Nor epinephrine
 - Cortisone
- (x) Chemical messengers secreted by ductless glands are called
- Lymph
 - Platelets
 - Plasma
 - Hormones
- (xi) What is the precursor of steroid hormone?
- Protein
 - Cholesterol
 - Carbohydrate
 - Lipid
- (xii) Name the gland, which releases Neurohormone.
- Hypothalamus
 - Pituitary
 - Thyroid
 - Pancreas
- (xiii) The endocrine gland responsible for the body's circadian rhythm is the
- Thymus gland
 - Pineal gland
 - Parathyroid gland
 - Pituitary gland
- (xiv) Which of these is not an endocrine property?
- Hormones reach target through the blood
 - Effects are slow and cyclic
 - Rapid acting effects
 - Effects cause by chemicals
- (xv) Which of the following connective tissue envelopes the bone?
- Periosteum
 - Pericardium
 - Myocardium
 - Marrow

- (xxiv) Events of reflex actions include all the following, except :-
- | | |
|-------------------------------------|------------------------------------|
| a. Stimulation of sensory receptors | b. Stimulation of central synapses |
| c. Inhibition of sensory receptors | d. Inhibition of central synapses |
- (xxv) Failure of the spinal reflexes is manifested by
- | | |
|--|--------------------------------------|
| a. Automatic micturition | b. Appearance of Babinski sign |
| c. Loss of sensation from regions innervated by the cord below the level of the lesion | d. Disappearance of the tendon jerks |

Group – B

(Short Answer Type Questions)

4 x 5 = 20

Answer any *four* from the following

- | | |
|--|---|
| 2. Write a short note on blood brain barrier. | 5 |
| 3. Classify nervous system and explain sympathetic and parasympathetic nervous system. | 5 |
| 4. Classify the connective tissues with examples. | 5 |
| 5. Write basic function of muscles and What is the weakest & strongest muscle in the body? | 5 |
| 6. Write short note on largest endocrine gland in the body. | 5 |
| 7. How does the lymphatic system fight infection? | 5 |

Group – C

(Long Answer Type Questions)

2 x 10 = 20

Answer any *two* from the following

- | | |
|---|-----|
| 8. What do you mean by reflex arc? Describe the pathway of reflex arc. | 5+5 |
| 9. Write short notes on Major parts of Brain. Write short notes on Cerebrospinal Fluid. | 5+5 |
| 10. With the help of diagram explain the structure and functions of the heart. | 10 |
| 11. Describe the portal venous system with diagram. | 10 |