



**BRAINWARE UNIVERSITY**  
**Term End Examination 2020 - 21**  
 Programme – Bachelor of Science in Physician Assistant

Course Name – Human Anatomy

Course Code - BPA101

Semester / Year - Semester I

Time allotted : 75 Minutes

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)

1 x 60=60

1. (Answer any Sixty )

(i) The basic unit of contraction is the

- |            |               |
|------------|---------------|
| a) Myosin  | b) Actin      |
| c) Z-Lines | d) Sarcomeres |

(ii) A cord or strap of dense tissue that connects a muscle to bone is called

- |           |              |
|-----------|--------------|
| a) Tendon | b) Ligament  |
| c) Bursa  | d) Arthritis |

(iii) What are dark bands that define the two ends of each sacromeres called

- |            |               |
|------------|---------------|
| a) Myosin  | b) Actin      |
| c) Z-lines | d) Sarcomeres |

(iv) A motor unit is made up of\_\_\_\_\_.

- |   |   |
|---|---|
| a) All the muscle fibers within a given muscle                  | b) A motor neuron and the muscle fibers it innervates |
| c) All the neurons going into an individual section of the body | d) A fascicle and a nerve                             |

(v) Group of cells, which is similar in structure and function are structured into

- |                 |            |
|-----------------|------------|
| a) Organ system | b) Muscles |
|-----------------|------------|

c) Bone

d) Tissues

(vi) Name the tissues that are involved in the formation of membranes.

a) Epithelial tissue

b) Nervous tissue

c) Muscular tissue

d) Connective tissue

(vii) Name the tissues which detect changes inside and outside the body and respond by action potential?

a) Epithelial tissue

b) Connective tissue

c) Muscular tissue

d) Nervous tissue

(viii) Which of the following does not belong to the class of covering and lining epithelium?

a) Simple squamous epithelium

b) Glandular epithelium

c) Simple cuboidal

d) Simple columnar

(ix) Which of the following is NOT the function of areolar connective tissues?

a) Strength

b) Elasticity

c) Support

d) Forms stroma of organs

(x) Among the following which one is not the location of smooth muscle cells?

a) Iris of the eye

b) Airways to the lungs

c) Heart wall

d) Urinary bladder

(xi) Which of the following cells supports, nourishes, and protect the neurons?

a) Nissl bodies

b) Perikaryon

c) Ganglia

d) Glial cells

(xii) The supporting and nutritive cells found in brains are

a) Oligodendrocytes

b) Astrocytes

c) Microglia

d) Ependymal cells

(xiii) Which of the following does not act as a neurotransmitter?

- a) Acetylcholine
- b) Epinephrine
- c) Nor epinephrine
- d) Cortisone

(xiv) Cerebrum helps in

- a) Breathing and controlling blood pressure
- b) Balance and coordination
- c) Voluntary movement
- d) Speech and hearing

(xv) The brain stem is composed of

- a) Brain buds and flowers
- b) Spinal cord
- c) Axon and vertebra
- d) Medulla pons and middle brain tissue

(xvi) What connects two hemispheres of the brain?

- a) Pons
- b) Pia matter
- c) Corpus callosum
- d) Diencephalon

(xvii) Fluid filled cavity in the brain is called as

- a) Matter
- b) Cavity
- c) Meninges
- d) Ventricles

(xviii) Chemical messengers secreted by ductless glands are called

- a) Lymph
- b) Platelets
- c) Plasma
- d) Hormones

(xix) Which of the following is NOT an endocrine gland?

- a) Hypothalamus
- b) Pituitary
- c) Parathyroid
- d) Pancreas

(xx) Mark the one, which is NOT the precursor of the hormone?

- a) Amino acids
- b) Cholesterol

c) Phospholipids

d) Proteins

(xxi) What is the precursor of steroid hormone?

a) Protein

b) Cholesterol

c) Carbohydrate

d) Lipid

(xxii) Name the hormone which takes part in the release of FSH and LH from the anterior pituitary.

a) Growth hormone

b) GnRH

c) Somatostatin

d) TRH

(xxiii) Which of the following is Growth hormone inhibiting hormone?

a) FSH

b) TRH

c) GHRH

d) Somatostatin

(xxiv) Name the hormone, which is released by the posterior pituitary.

a) Oxytocin

b) TSH

c) ICSH

d) Prolactin

(xxv) What is the name of the gland which secretes melatonin?

a) Pituitary gland

b) Pineal gland

c) Thyroid gland

d) Hypothalamus

(xxvi) Name the gland that is located at the base of the throat, just inferior to the laryngeal prominence (Adam's apple)

a) Pituitary

b) Pineal gland

c) Hypothalamus

d) Thyroid

(xxvii) What gland is located just superior to the kidney?

a) Pituitary

b) Adrenal

c) Pancreas

d) Ovaries

(xxviii) In the pancreas which are the cells that secrete insulin, decrease the blood levels of glucose.

- a) Delta
- b) Alpha
- c) Beta
- d) Ovaries

(xxix) The endocrine gland responsible for the body's circadian rhythm is the

- a) Thymus gland
- b) Pineal gland
- c) Parathyroid gland
- d) Pituitary gland

(xxx) Which of these is not an endocrine gland?

- a) Pancreas
- b) Testes
- c) Salivary gland
- d) Parathyroid

(xxxi) Which of these hormones is made by the posterior pituitary?

- a) FSH
- b) LH
- c) ACTH
- d) ADH

(xxxii) How many bones does an adult human skeleton have?

- a) 206
- b) 207
- c) 208
- d) 209

(xxxiii) Name the four classes of bones?

- a) Long, short, regular, irregular
- b) Big, small, flat, bulged
- c) Long, Short, Flat, and Irregular
- d) Big, small, regular, irregular

(xxxiv) Which of the following connective tissue envelopes the bone?

- a) Periosteum
- b) Pericardium
- c) Myocardium
- d) Marrow

(xxxv) Which cell secretes the matrix for bone formation?

- a) Osteoclastoma
- b) Osteoclast

c) Mesoblasts

d) Osteoblasts

(xxxvi) Which of the following is the largest segment of the movable part of the vertebral column?

a) Coccygeal

b) Cervical

c) Lumbar vertebrae

d) Thoracic

(xxxvii) The joint between atlas and axis is \_\_\_\_\_

a) Ball and socket joint

b) Saddle joint

c) Pivot joint

d) Angular joint

(xxxviii) Human Cranium has \_\_\_\_\_ bones?

a) 12

b) 7

c) 8

d) 9

(xxxix) Name of the tongue bone is \_\_\_\_\_

a) Frontal bone

b) Zygomatic bone

c) Hyoid bone

d) Mandible

(xl) Which of the following does not belong with the others?

a) Myosin

b) Actin

c) Filament

d) Myofibrils

(xli) What type of contraction is characterized by a rapid, jerky response to a single stimulus?

a) Summation

b) Treppe

c) Tonic

d) Twitch

(xlii) Muscle tissue refers to all contractile tissue. To what does the term muscular system most often refer?

a) Skeletal muscle system

b) Cardiac muscle system

c) Visceral muscle system

d) Computerized muscle tissue

(xliii) What are the actin and myosin filaments in muscle composed of?

a) Nucleic acids

b) Fatty acids

c) Proteins

d) Carbohydrates

(xliv) What triggers the release of calcium ions from the sarcoplasmic reticulum?

a) Formation of actin-myosin cross-bridges

b) Sarcomere contraction

c) An action potential

d) An increase in calcium ion concentration

(xlv) A skeletal muscle is stimulated to contract when its plasma membrane is excited by a message from a \_\_\_\_\_. This message is received at the neuromuscular junction.

a) Sensory neuron

b) Motor unit

c) Motor neuron

d) Sarcoplasm

(xlvi) Which of the following is NOT the component of the PNS?

a) Elastic connective tissue

b) Cranial nerves

c) Spinal nerves

d) Ganglia

(xlvii) Out of the following, which one does not affect the speed of conduction of nerve impulse.

a) No. of ganglia

b) Myelin sheath

c) Axon diameter

d) Temperature

(xlviii) In peripheral nervous system the nerves that arise from spinal cord and brain are called as \_\_\_\_\_

a) Spinal nerves

b) Cranial nerves

c) Temporal nerves

d) Frontal nerves

(xlix) Preganglionic neurons lie within \_\_\_\_\_.

- a) CNS
- b) Parasympathetic nervous system
- c) Peripheral nervous system
- d) Sympathetic nervous system

(l) Which of the following cells is found in peripheral nervous system?

- a) Schwann cells
- b) Microglia
- c) Astrocytes
- d) Oligodendrocytes

(li) Which of the following ganglia is not a collateral ganglion?

- a) Celiac
- b) Superior mesenteric
- c) Inferior mesenteric
- d) Cervical

(lii) Parasympathetic nerve arises from which region of the nervous system?

- a) Cranio sacral
- b) Lumbar
- c) Cervical
- d) Thoracolumbar

(liii) From where does the formation of a neural tube take place?

- a) Ectoderm
- b) Endoderm
- c) Spinal cord
- d) Mesoderm

(liv) The anterior end of neural tube becomes \_\_\_\_\_.

- a) Spinal cord
- b) Brain
- c) Axon
- d) Backbone

(lv) In CNS myelinated fibers form the \_\_\_\_\_ while non myelinated fibers cells form\_\_\_\_\_.

- a) Grey matter, white matter
- b) Ependymal cells, neurosecretory cells
- c) White matter, grey matter
- d) Neurosecretory cells, Ependymal cells

(lvi) Which of the following nerve is purely motor nerve?

- a) Trigeminal
- b) Vagus



c) Facial

d) Abducens

(lvii) Skeletal muscles are controlled by \_\_\_\_\_.

a) Somatic nerves

b) Autonomic nerves

c) Sympathetic nerves

d) Parasympathetic nerves

(lviii) Spinal Cord originates from which part of the brain?

a) Cerebellum

b) Medulla

c) Pons

d) Cerebrum

(lix) The central nervous system is connected with the peripheral nervous system by all the following types of nerve fibers, except :-

a) Postganglionic autonomic fibers

b) Preganglionic autonomic fibers

c) Somatic motor fibers

d) Autonomic sensory fibers

(lx) 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