



# BRAINWARE UNIVERSITY

**Term End Examination 2021 - 22**

**Programme – Diploma in Pharmacy**

**Course Name – Human Anatomy & Physiology**

**Course Code - 1.5T**

**( Year I )**

**Time allotted : 1 Hrs.35 Min.**

**Full Marks : 80**

[The figure in the margin indicates full marks.]

## **Group-A**

(Multiple Choice Type Question)

1 x 80=80

*Choose the correct alternative from the following :*

- (1) Which of the following is flexible connective tissue that is attached to bones at the joints?
 

a) Adipose	b) Cartilage
c) Epithelial	d) Muscle
- (2) Which of the following best describes the human body's defence mechanism against environmental bacteria?
 

a) Hair in the nose	b) Mucous membranes
c) Saliva	d) Osteoblasts
- (3) The term cell was coined by
 

a) Schwann	b) Robert Hooke
c) De Bary	d) Tatum
- (4) Smooth endoplasmic reticulum is site of :
 

a) Protein Synthesis	b) Carbohydrate Synthesis
c) Amino acid Synthesis	d) Lipid Synthesis
- (5) In a normal human being number of chromosomes is
 

a) 23	b) 46
c) 53	d) 26
- (6) The rough ER is so named because it has an abundance of \_\_\_\_\_ on it.
 

a) Mitochondria	b) Lysosomes
c) Golgi bodies	d) Ribosomes
- (7) DNA is mainly present in:

- a) Ribosome  
c) Nucleus
- b) Plasma membrane  
d) None of these
- (8) Rhythmicity is a property of :
- a) Nervous tissue  
c) Cardiac muscle
- b) Voluntary muscle  
d) Globular Cell
- (9) Bone is a \_\_\_\_\_ tissue.
- a) Epithelial  
c) Connective
- b) Muscular  
d) All of these
- (10) Ribosomes helps in:
- a) Photosynthesis  
c) Sympathetic
- b) Protein Synthesis  
d) None of these
- (11) Name the outer most boundary of cell:
- a) Plasma membrane  
c) Nuclear membrane
- b) Cytoplasm  
d) None of these
- (12) Which of the following gives shape to the cell?
- a) Protoplasm  
c) Plasma membrane
- b) Cytoplasm  
d) Erythrocyte
- (13) A very important organelle which is also called power house of cell is:
- a) Mitochondria  
c) Golgi complex
- b) Mucous membranes  
d) Nucleus
- (14) Synapse is present in:
- a) Cardiac tissue  
c) Nervous tissue
- b) Connective tissue  
d) Epithelial tissue
- (15) The epithelial tissues present on the inner surface of bronchioles and fallopian tubules are \_\_\_\_\_
- a) Squamous  
c) Glandular
- b) Ciliated  
d) Cuboidal
- (16) Name the tissues that are involved in the formation of membranes.
- a) Epithelial tissue  
c) Muscular tissue
- b) Nervous tissue  
d) Connective tissue
- (17) Which of the following does not belong to the class of covering and lining epithelium?
- a) Simple squamous epithelium  
c) Simple cuboidal
- b) Glandular epithelium  
d) Simple columnar
- (18) All movement of human body is coordinated and controlled by:
- a) Axial system  
c) Vertebral system
- b) Nervous system  
d) Skeletal muscles
- (19) The rough ER is so named because it has an abundance of .....on it.
- a) Mitochondria  
c) Golgi bodies
- b) Ribosome's  
d) Liposome's
- (20) Each organelle has a specified:
- a) Shape  
c) Size
- b) Function  
d) Mass

- (21) The type of cellular organization in which many organisms do not undergo cellular division is called:
- a) Unicellular
  - b) Multi-cellular
  - c) Colonial
  - d) Groups
- (22) Strength is provided to plants by tissues known as:
- a) Parenchyma only
  - b) Collenchyma only
  - c) Ground tissues
  - d) Parenchyma and collenchyma
- (23) Vacuoles are not permanent in:
- a) Plant cell
  - b) Human cell
  - c) Toad cell
  - d) Animal cell
- (24) The function of building up of the proteins in the cell is done by :
- a) Chromatin
  - b) Chromosomes
  - c) Nucleolus
  - d) Neucleoplasm
- (25) What is the difference between compact bone and spongy bone?
- a) They have different bone marrow
  - b) They are made of different materials
  - c) They have different sizes of bone cells
  - d) They have different arrangement of bone cells
- (26) Muscles are made of
- a) Silica
  - b) Polyester threads
  - c) Calcium and phosphorous
  - d) Groups of cells called fibres
- (27) How do muscles attached to the bones move the body?
- a) Automatically
  - b) Pull movement only
  - c) Push movement only
  - d) Push and pull movement
- (28) Which of the following connects the sternum to the ribs?
- a) Bony matter
  - b) White fibrous cartilage
  - c) Hyaline cartilage
  - d) Aerolar tissue
- (29) The number of saddle joints in human body is:
- a) 10
  - b) 8
  - c) 4
  - d) 2
- (30) What type of joint is found in wrist?
- a) Saddle joint
  - b) Gliding joint
  - c) Pivot joint
  - d) Hinge joint
- (31) What are bones forming cells called?
- a) Osteocytes
  - b) Osteoblasts
  - c) Osteoclasts
  - d) Osteons
- (32) Which of the following is sesamoid bone?
- a) Scapula
  - b) Patella
  - c) Sternum
  - d) Tibia
- (33) An example of ball and socket joint in the human body can be found in the –
- a) Shoulder
  - b) Knees
  - c) Ankles
  - d) Elbow
- (34) The hollow space in the middle of bones is filled with:

- a) Air  
c) Bone cells
- b) Blood  
d) Bone marrow
- (35) Which cells in the blood do not have a nucleus?  
a) Lymphocyte  
c) Basophil
- b) Monocyte  
d) Erythrocyte
- (36) The branch of science deals with blood, blood forming tissues and its disorders is called \_\_\_\_\_  
a) Hemopoiesis  
c) Plasmology
- b) Cardiovascular system  
d) Hematology
- (37) Which of the following is NOT a plasma protein?  
a) Albumin  
c) Fibrinogen
- b) Globulin  
d) Fibronectin
- (38) Which type of anemia is responsible for the disease thalassemia?  
a) Aplastic anemia  
c) Hemorrhagic anemia
- b) Hemolytic anemia  
d) Iron deficiency anemia
- (39) Blood is stained with \_\_\_\_ stain.  
a) Methylene blue  
c) Leishman stain
- b) Safranin  
d) Carbol fuchsine
- (40) Process of formation of blood corpuscles is called \_\_\_\_\_  
a) Haemolysis  
c) Haemopoiesis
- b) Haemozoin  
d) Haemoter
- (41) Which leucocytes release heparin and histamine in blood?  
a) Neutrophil  
c) Eosinophil
- b) Basophil  
d) Monocytes
- (42) Absence of which clotting factor leads to Hemophilia-A?  
a) Factor VII  
c) Factor IX
- b) Factor VIII  
d) Factor X
- (43) What prevents clotting of blood inside blood vessels?  
a) Heparin  
c) Fibrinogen
- b) Serotonin  
d) Fibrin
- (44) Most of the volume of normal human blood is composed of:  
a) Red cells  
c) Plasma
- b) Hemoglobin  
d) White cell
- (45) The life span of erythrocyte is about:  
a) 60 days  
c) 120 days
- b) 90 days  
d) 100 days
- (46) The average total number of White blood cell is :  
a) 5000 per cu mm  
c) 4000 per cu mm
- b) 10000 per cu mm  
d) 6000 – 8000 per cu mm
- (47) \_\_\_\_\_ is a blood disorder where the haemoglobin is defective:  
a) Heterochromia  
c) Haemolysis
- b) Alopecia  
d) Sickle cell anaemia
- (48) Lymph is without:

- a) Leucocytes  
c) Erythrocytes
- b) Plasma  
d) None of these
- (49) Ventricle is thick walled as compared to auricle, because:  
a) It is present on the posterior side  
b) It is to pump blood  
c) It is to receive blood from auricles  
d) None of these
- (50) Lymph nodes may be located in the human body in the tissues of the:  
a) Stomach & Brain  
b) Groin & Neck  
c) Ventricle & Atrium  
d) Thyroid gland & Adrenal Gland
- (51) The thymus is responsible for secreting ----- from epithelial cells.  
a) Thymosin  
b) Growth hormone  
c) Macrophages  
d) Plasma cells
- (52) T-cell activation requires a/an -----cell :  
a) Activation  
b) Accessory  
c) Plasma  
d) Helper
- (53) Out of the following, which one is NOT the physical characteristic of the blood?  
a) Volume is 15-16 liters in an average sized adult male  
b) Slightly alkaline pH  
c) Slightly alkaline pH  
d) Provide 8% of total body mass
- (54) Complete digestion of food occurs in:  
a) Stomach  
b) Small intestine  
c) Pancreas  
d) None of these
- (55) Removal of waste from our body to the process of:  
a) Excretion  
b) Respiration  
c) Exhalation  
d) Double Circulation
- (56) The reserve pace maker is :  
a) AV node  
b) SA node  
c) Bundle of His  
d) None of these
- (57) Parotid glands are present in:  
a) Stomach  
b) Mouth  
c) Pharynx  
d) Intestine
- (58) The site of respiration inside the lungs are \_\_\_\_\_  
a) Alveoli  
b) Diaphragm  
c) Bronchi  
d) Bronchioles
- (59) The structure which closes of larynx is \_\_\_\_\_  
a) Epiglottis  
b) Vocal cords  
c) Adam's apple  
d) Glottis
- (60) ECG records electrical changes in which of the following layers of the heart, mark the correct option:  
a) Epicardium  
b) Pericardium  
c) Endocardium  
d) Myocardium
- (61) Natural pacemaker of heart:  
a) AV node  
b) SA node  
c) Bundle of His  
d) None of these

- (62) Which of the following membrane is responsible for the protection of the heart?
- a) Epicardium
  - b) Endocardium
  - c) Myocardium
  - d) Pericardium
- (63) The semilunar valves prevent blood from flowing backwards:
- a) Into the atria
  - b) Into the ventricles
  - c) Into the brain
  - d) Into the liver
- (64) All the following apply to the bicuspid valve except:
- a) It is also called the mitral valve
  - b) It is a semilunar valve
  - c) It is found on the left side of the heart
  - d) It prevents blood from backing into the left atrium
- (65) Mitral valve is present between \_\_\_\_\_:
- a) Right atrium and left ventricle
  - b) Right and left ventricle
  - c) Left ventricle and aorta
  - d) Left atrium and left ventricle
- (66) The first branch of the human aorta is:
- a) Left subclavian artery
  - b) Brachiocephalic artery
  - c) Coronary artery
  - d) Left common carotid artery
- (67) Which part of human brain is concerned with the regulation of body temperature:
- a) Cerebellum
  - b) Hypothalamus
  - c) Scapula
  - d) Mandible
- (68) Function of smooth muscles, cardiac muscles, organs and glands are regulated by \_\_\_\_\_ system
- a) Autonomic
  - b) Central
  - c) Sympathetic
  - d) None of these
- (69) The "sodium-potassium pump" pumps \_\_\_\_\_.
- a) Sodium ions out and potassium ions in
  - b) Sodium ions in and potassium ions out
  - c) Sodium and potassium ions in
  - d) Sodium and potassium ions out
- (70) 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
- (71) Spinal cord and brain are wrapped in protective membranes known as \_\_\_\_\_
- a) Nodes of Ranvier
  - b) Meninges
  - c) Axomembranes
  - d) Myelin sheath
- (72) Bipolar neurons have \_\_\_\_\_
- a) Two axons
  - b) One axon and one dendrite
  - c) One axon and one presynaptic terminal
  - d) Two presynaptic terminals
- (73) Which of the following helps in maintaining the shape of the eye?
- a) Neuroglia
  - b) Aqueous humor
  - c) Vitreous humor
  - d) Perikaryon
- (74) What is the speed of nerve impulse?
- a) 60 m/s
  - b) 0.5 – 130 m/s
  - c) 10-30 m/s
  - d) 50 -150 m/s
- (75) Broca's area in the left hemisphere is related to \_\_\_\_\_.

- a) Receiving the impulses from eyes                      b) Speech  
c) Learning and reasoning                                  d) Sensation of smell
- (76) Comprehension of spoken and written words take place in the region of:  
a) Association areas    b) Motor area  
c) Wernicke's area    d) Broca's area
- (77) Which of the following cells supports, nourishes, and protects the neurons?  
a) Nissl bodies    b) Perikaryon  
c) Ganglia    d) Glial cells
- (78) Glands emptying the circumvalate through are the:  
a) Mucous glands    b) Serous glands  
c) Mucous and serous mixed glands                    d) Glands of Nuhn
- (79) The light-sensitive cells present on the retina and sensitive to the light intensity is:  
a) Rods    b) Cones  
c) Rods and cones both                                    d) None of these
- (80) Where is the tectorial membrane found?  
a) Inner ear    b) The brain  
c) Middle ear     d) Outer ear