



Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF MEDICAL SCIENCES
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF
MEDICAL LABORATORY SCIENCES
BMLS 13S REGULAR

AML 4105 : HUMAN PHYSIOLOGY I

SEMESTER EXAMINATION

APRIL 2014 SERIES

2 HOURS

Instructions to candidates:

This paper consists of **TWO** sections **A** and **B**

Section A -Contains MCQS, Answer **ALL** questions in **Section B**.

SECTION A - MCQs - (30marks)

1. Which of the following event occur during telephase
 - a) Cytokinesis
 - b) Chromosome separation
 - c) Nuclear membrane disintergration
 - d) Attachment of centromes
 - e) Movement of centromis to opposite poles
2. The cell memberane is composes of
 - a) Lipoprotein layer
 - b) Tricipid layer
 - c) Buipid layer
 - d) Monophosphalipid layer
 - e) Glucose layer
3. The following organell is responsible for separation of chromosomes at chiasano during miosis
 - a) Golgi apparatus
 - b) Centrioces
 - c) Ribosomes
 - d) Mitochondria
 - e) Peroxisomes
4. What of the following is a site of energy production in a cell

- a) Cell membrane
 - b) Ribosomes
 - c) Mitochondria
 - d) Nucleus
 - e) Golgi apparatus
5. Which of the following is not a type of epithelial tissue
 - a) Stratified columnar
 - b) Simple connective tissue
 - c) Stratified squamous
 - d) Keratinized connective
 6. Which one of the following tissue is found in the kidney tubules
 - a) Stratified columnar
 - b) Squamous epithelium
 - c) Simple cuboidal epithelium
 - d) Stratified cuboidal
 - e) Keratinized epithelial
 7. Which of the following is not a membrane organelle
 - a) Lysosomes
 - b) Mitochondria
 - c) Nucleus
 - d) Centrosomes
 - e) Golgi apparatus
 8. Which of the following is not found in the cytoplasm of the cell
 - a) Endoplasmic reticulum
 - b) Membranous organelles
 - c) Non-membranous organelles
 - d) Ribosomes
 9. Which of the following bears ribosomes on its surface
 - a) Mitochondria
 - b) Smooth endoplasmic reticulum
 - c) Rough endoplasmic reticulum
 - d) Lysosomes
 - e) Both b and c
 10. Material can leave the cell by the following except
 - a) Simple diffusion
 - b) Exocytosis
 - c) Pinocytosis
 - d) An output
 - e) Both a and b
 11. Which of the following is a property of a nerve cell
 - a) Relaxation
 - b) Elasticity
 - c) Contractility
 - d) Extensibility
 - e) Conductivity
 12. Which of the following is considered as the basic unit of life
 - a) Organelle
 - b) Tissue
 - c) Organism

- d) The cell
 - e) The organ
13. Which of following happens during the space of cell cycle
- a) mRNA and protein are produces
 - b) growth and preparation of chromosome replication
 - c) Preparation for mitosis
 - d) DNA replication
 - e) All of the above
14. Movement across the cell membrane involve which of the process
- a) Diffusion
 - b) Osmosis
 - c) Active transport
 - d) Filtration
 - e) All the above
15. Typical osmolarity of human interstitial fluid or blood plasma ranges between
- a) 200 – 275mosmoles /l
 - b) 175 – 275 mosmol/L
 - c) 275 – 385 mosmoles/l
 - d) 285 – 310 mosmole/l
 - e) 300 – 400 mosmol/l
16. Cells will shrink when placed in which of the following solution
- a) Hypertonic solution
 - b) Isotonic solution
 - c) Hypotonic solution
 - d) Both hypertonic and Isotonic
 - e) Both hypotonic and isotonic
17. Which of the following is not characteristic of muscle tissue
- a) Excitability
 - b) Contractility
 - c) Mobility
 - d) Elasticity
 - e) Extensibility
18. A muscle that descreases a joint angle when it contracts is called
- a) Extensor
 - b) Filexor
 - c) Addictor
 - d) Abductor
 - e) Pronator
19. Which of the following statement is true
- a) Sodium (Na⁺) is more Concentrated in the extra cellular than intracellular space
 - b) Sodium (Na⁺) is more concentrates in the intracellular space then extracellular space
 - c) Potassium is more concentrated in both intracellular and extracellular space
 - d) Potassium is more concentrates in the extrocellucer space
 - e) Sodium is more concentrated in both intracellular and extracellucer space
20. Which of the following is not true about a muscle fiber
- a) Is a single muscle cell
 - b) Functional unit of muscle
 - c) Fibers run peep v. Cullar to each other

- d) Cylinder less than 1/10nm diameter and upto ½ meter long
 e) None of the above.
21. Which one is not true about a neurone
 a) Is basic functional unit of the nervous system
 b) Can divide by mitosis
 c) Respond to physical and chemical stimuli
 d) Produce and conduct electrochmic impulses
 e) Release chemical regulators
22. Neuroglia are supporary cells of the nervous system, which one is not true
 a) Segregate and insulate neurons
 b) Guide young neurons to proper conception
 c) Promote health and growth
 d) Provide supportive scaffolding for neurons
 e) Play no role in health and growth
23. Which of the following is not a central nervous system neuroglia
 a) Astrocytes
 b) Oligodendrocytes
 c) Microglia cells
 d) Ependymall cells
 e) Sylvain cells
24. Which one of the following is not included in the phases of action potential
 a) Depolarization
 b) Re polarization
 c) Threshold potential
 d) Undershoot
 e) Both a and b
25. Which of the following cells are involved in bone resorption
 a) Osteoblast
 b) Osteoclast
 c) Osteocytes
 d) Chondroblast
 e) Fibroblast
26. Which are the two forms of nerve impulse
 a) Hyperpolarization and hypopolinization
 b) Hyperdeporization and hypodepolirazation
 c) Action potential and graded potential
 d) Summation and desquamation
 e) Hyper pourizzation and depolarization
- 27.
- 28.
29. N
30. N
31. N
32. N
33. N
34. N
35. N

36. npeople are allergic to insects bites and stings. Thin condition I called
a) Septic shock

SECTION B ESSAY
(ANSWER ALL QUESTION IN THIS SECTION)