



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF MEDICAL SCIENCES

UNIVERSITY EXAMINATION FOR:

BMLS18 PT

AML 4303: HISTOLOGY

END OF SEMESTER MAIN EXAMINATION

SERIES: May/August 2019

TIME: 2 HOURS

DATE: Aug 2019

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **TWO** Section(s). Attempt ALL questions.

Circle the correct answer in section A.

Section A (30 Marks)

1. What is Histology?
 - a) Study of organ systems
 - b) Study of body organs
 - c) Anatomy
 - d) Histochemistry
 - e) Study of body tissues
2. Which of the following is/are NOT cytoplasmic organelles
 - a) Mitochondria
 - b) Golgi bodies
 - c) Inclusions
 - d) E.R
 - e) Plasma membrane
3. Which of the following is the right build up?
 - a) Organelles-cell-tissue-organ-organ system-organism
 - b) Organism-organ system-organ-tissue-cell-organelle
 - c) Tissue-organ system-organism

- d) Organ-tissue-cells-organism-organ system
 - e) None of the above
4. Which of the following is the cellular organelle with digestive enzyme?
- a) Lysosome
 - b) Centromere
 - c) Golgi apparatus
 - d) Mitochondria
 - e) Plasmolemma
5. Which of the following is NOT a histological element of tissue?
- a) Extracellular matrix
 - b) Cells
 - c) Intracellular space
 - d) Post cellular structures
 - e) Symplast
6. Where do we obtain biopsies?
- a) Corpses
 - b) Cadavers
 - c) Mortuary
 - d) Patients
 - e) None of the above
7. What is an autopsy examination?
- a) Post mortem
 - b) Biopsy preparation
 - c) Sample processing of histological artifacts
 - d) Embalming
 - e) None of the above
8. The organs listed below are expected to have more lysosomes EXCEPT:
- a) Spleen
 - b) Lymph nodes
 - c) Liver
 - d) Kidney
 - e) Thymus
9. Which of the following organs do you expect to see more mitochondria?
- a) The Liver
 - b) Kidney
 - c) Skin
 - d) Lungs
 - e) None of the above
10. A group of cells performing similar function is called?
- a) Kinetics
 - b) Organism
 - c) Tissue
 - d) A system
 - e) None of the above

11. Which stage of cell division do you expect to see distinct cytoplasmic separation?
- a) Prophase
 - b) Metaphase
 - c) Early anaphase
 - d) Late anaphase
 - e) Telophase
12. Which of the following organelle is involved in protein synthesis?
- a) Ribosomes
 - b) Smooth E.R
 - c) Golgi bodies
 - d) Mitochondria
 - e) Plasma membrane
13. The following are components of the bone connective tissue EXCEPT:
- a) Bone stricture
 - b) Osteoclasts
 - c) Osteoblasts
 - d) Calcified matrix
 - e) Harvesian canals
14. Which kind of epithelial tissue listed below is seen at the urinary bladder?
- a) Simple squamous epithelium
 - b) Simple cuboidal epithelium
 - c) Simple columnar epithelium
 - d) Ciliated epithelium
 - e) Keratinized stratified squamous epithelium
15. Which of the following is a type of cartilage?
- a) Hyaline
 - b) Fibroblasts
 - c) Chondrocytes
 - d) Matrix
 - e) None of the above
16. What is the approximate measurement of the esophagus?
- a) 50 cm
 - b) 100 cm
 - c) 10 cm
 - d) 25 cm
 - e) 5 cm
17. Which is the largest organ in the body?
- a) Liver
 - b) Lungs
 - c) Skin
 - d) Kidney
 - e) Brain
18. Which of the following statements is/are TRUE?

- a) It is possible to study a dried ground bone without decalcification
 - b) All bone histological examination need prior decalcification
 - c) Osteoclasts are precursor cells in the bone
 - d) Bone originates from a primary tissue
 - e) All of the above
19. The following are part of connective tissue EXCEPT:
- a) Chondrocytes
 - b) Blood
 - c) Bone
 - d) Cartilage
 - e) Muscle fibers
20. The following are human body tissues EXCEPT:
- a) Muscle
 - b) Nerve
 - c) Epithelium
 - d) Connective tissue
 - e) Blood
21. What is Histo chemistry?
- a) Differential staining characteristics by cellular and tissue parts
 - b) Chemical reactions in tissues
 - c) A branch of chemistry in histology
 - d) Molecular basis of histological stains
 - e) All of the above
22. Which of the following is the common stain used in histological examinations in local hospitals?
- a) Papanicolauo
 - b) Wrights stain
 - c) H&E stain
 - d) Nissyl stain
 - e) Periodic Acid Schiff
23. The following makes up the layers of the gastrointestinal tract EXCEPT:
- a) Muscularis externa
 - b) Serosa
 - c) Mucosa serosa
 - d) Tunica Adventitia
 - e) Sub mucosa
24. The epithelial tissue of the buccal cavity rests on the lamina propria which consists of....
- a) Smooth muscles
 - b) Connective tissue
 - c) Cardiac muscles
 - d) Muscle tissue
 - e) Nerve tissue
25. Which of the following is NOT a component of the Meninges?

- a) Sub arachnoid space
 - b) Ganglia
 - c) Arachnoid
 - d) Dura
 - e) Pia mater
26. What is a ganglion?
- a) A gang of cranial nerves
 - b) A nerve cell cluster
 - c) Synonym of the brain
 - d) Synovial fluid in nerve junction
 - e) Grey mater
27. The following statements are TRUE of staining characteristics exhibited in histology:
- a) Cilia are normally acidophilic
 - b) The phosphate groups in nucleic acids cause the nucleus to stain dark blue
 - c) Tissue components that take basic dye are basophilic
 - d) In Histological examination microorganisms in tissues can never be demonstrated
 - e) All of the above
28. The following are connective tissue cells EXCEPT?
- a) Fibroblasts
 - b) Osteoblasts
 - c) Myoblasts
 - d) Leukocytes
 - e) All of the above
29. Histology is majorly divided into two (2) parts?
- a) Organology and tissue study
 - b) Histology and Histopathology
 - c) Animal and plant histology
 - d) Histology and cytology
 - e) Human anatomy and physiology
30. The following are cytoplasmic inclusions EXCEPT?
- a) Glycogen
 - b) Mucin
 - c) Centrioles
 - d) Yolk
 - e) Vacuoles

Section B (40 Marks)

31. a) Explain how Histology is important in the hospital set up (14 marks)
b) Outline the histological differences between arteries and veins (6 marks)
32. Discuss the epithelial tissue (20 marks)