



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 SPECIAL/SUPPLEMENTARY EXAM

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. How is Histopathology different from Histology?
 - a) Histology is simply organology while Histopathology is the study of organ systems
 - b) The difference between the two is that Histopathology mainly involves study of diseased tissues
 - c) Histology is more practical than histopathology
 - d) Histopathology involves study of cells
 - e) None of the above
2. Which of the following is/are cytoplasmic organelle
 - a) Glycogen
 - b) Mitotic spindle
 - c) Inclusions
 - d) E.R
 - e) Cilia
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 has own genetic make up?
- a) Lysosome
 - b) Centromere
 - c) Golgi apparatus
 - d) Mitochondria
 - e) Plasmolemma
5. Which of the following structure contains the oocyte?
- a) Follicle
 - b) Germinal epithelium
 - c) Medulla
 - d) Tunica
 - e) Cortex
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. During pregnancy which hormone maintains the corpus
- a) FSH
 - b) LH
 - c) HCG
 - d) Estrogen
 - e) Progesterone
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. The following make up the layers of the gastrointestinal tract EXCEPT?
- a) Serosa
 - b) Mucosa serosa
 - c) Tunica Adventitia
 - d) Muscularis externa
 - e) Submucosa
30. Which type of epithelial tissue lines the glandular ducts of the pancreas?
- a) Simple columnar epithelium
 - b) Simple cuboidal epithelium
 - c) Simple squamous epithelium
 - d) Stratified squamous epithelium
 - e) Transitional epithelium

Section B (40 Marks)

31. a) Compare the microscopic features of skeletal, cardiac and smooth muscles (15 marks)
b) Outline the human body systems with their organs (5 marks)
- 32 a). Briefly discuss cell division by mitosis (10 marks)
b). Explain the structure and function of cellular organelles (10 marks)