

TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES
DEPARTMENT OF MEDICAL SCIENCES
UNIVERSITY EXAMINATION FOR:
DEGREE
AML 4303 : HISTOLOGY
SPECIAL/ SUPPLIMENTARY EXAMINATIONS

SERIES: SEPTEMBER 2018

TIME: 2 HOURS

DATE: Pick Date Sep 2018

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

1. Histology is the study of
 - a. Cells
 - b. Tissues
 - c. Tumours
 - d. Diseases
 - e. Organs
2. The following are connective tissue cells except
 - a. Fibroblasts
 - b. Osteoblast
 - c. Myoblasts
 - d. Leukocytes
 - e. Adipocytes

3. The cellular organelle that contains digestive enzymes is called
 - a. Endoplasmic reticulum
 - b. Karyosomes
 - c. Lysosome
 - d. Centriole
 - e. Mitochondria
4. Cytoplasmic organelles include the following except
 - a. Vacuoles
 - b. Ribosomes
 - c. Endoplasmic reticulum
 - d. Centrioles
 - e. Karyosome
5. Which of the following is a component of collagen fibers
 - a. Alpha polypeptidereal
 - b. Extracellular matrix
 - c. Elastin
 - d. Elastic microfibril
 - e. Type III collagen
6. The prophase stage of mitotic cell division is characterised by
 - a. Appearance of two daughter cells
 - b. Condensation of chromosomal material
 - c. Disappearance of the spindle
 - d. Replication of DNA and RNA
 - e. Shortening of the spindle fibres
7. Simple columnar epithelium is found in which organ
 - a. Kidneys
 - b. Uterus
 - c. Skin
 - d. Small intestines
 - e. Iris
8. The human cell is divided into two parts namely
 - a. Nuclear and cell wall
 - b. Nuclear and cytoplasm
 - c. Protoplasm and cytoplasm
 - d. Cell wall and nuclear membrane
 - e. Organelles and ground substance
9. Stratified columnar epithelium are found in the
 - a. Mouth
 - b. Skin
 - c. Scalp
 - d. Urethra
 - e. Cornea

10. Multicellular glands are usually classified on the bases of the following except
 - a. The shape of their secretory part
 - b. The organ they drain into
 - c. The number of ducts draining the gland
 - d. Their secretory mechanisms
 - e. The secretory product
11. The Peyer's patches are located in the
 - a. Stomach
 - b. Rectum
 - c. Small intestines
 - d. Large intestines
 - e. Oesophagus
12. Which of the following are produced by Leydig cells?
 - a. Inhibin
 - b. Progesterone
 - c. Testosterone
 - d. Oestrogen
 - e. Androgen
13. In which of the basic tissue types does blood belong to
 - a. Epithelium
 - b. Blood
 - c. Connective tissue
 - d. Muscle
 - e. Nervous
14. What are the localized concentrations of lymphocytes seen in respiratory and gastrointestinal tract
 - a. Diffused lymphatic tissue
 - b. Peyer's patches
 - c. Lymph vessels
 - d. Lymph follicles
 - e. White pulp
15. Which organelle contains digestive enzymes
 - a. Ribosomes
 - b. Lysosomes
 - c. Mitochondria
 - d. Centrioles
 - e. Nucleoli
16. What is the name of the exocrine portion of the pancreas
 - a. Islets of Langerhans
 - b. Alpha cells
 - c. Delta cells
 - d. Beta cells
 - e. Acini

17. Which of the following is the inner layer of the adrenal cortex
 - a. Chromaffin cells
 - b. Zona glomerulosa
 - c. Zona reticularis
 - d. Zona fasciculate
 - e. Parafollicular layer
18. What type of gland secretes its products through a duct or tube
 - a. Endocrine gland
 - b. Exocrine gland
 - c. Thyroid gland
 - d. Multicellular gland
 - e. Unicellular gland
19. What type of tissue lines the urinary bladder
 - a. Simple squamous epithelium
 - b. Stratified squamous epithelium
 - c. Stratified cuboidal epithelium
 - d. Transitional epithelium
 - e. Simple columnar epithelium
20. What type of tissue lines most ducts
 - a. Transitional epithelium
 - b. Simple squamous epithelium
 - c. Simple columnar epithelium
 - d. Stratified squamous epithelium
 - e. Simple cuboidal epithelium
21. Which of the following is the largest organ in the body
 - a. Gastrointestinal tract
 - b. Kidney
 - c. Skin
 - d. Uterus
 - e. Brain
22. Prickle cells found on the skin are usually on which layer
 - a. Dermis layer
 - b. Intradermal layer
 - c. Epidermis layer
 - d. Epidermal cells
 - e. Semi-dermal layer
23. Which of the following statement is true about the adrenal gland
 - a. Also referred to as supra-adrenal gland
 - b. It is found below the kidney
 - c. It is divided into three portions
 - d. The whole gland is surrounded by a connective tissue capsule
 - e. It is one of the muscle tissue of the GIT

24. The following cells are found within the pituitary gland except
- Alpha cells
 - Beta cells
 - Gamma cells
 - Nerve cells
 - Basophils
25. The glandular ducts of the pancreas are lined by which type of epithelial tissue cell
- Columnar epithelium
 - Cuboidal epithelium
 - Squamous epithelium
 - Stratified epithelium
 - Transitional epithelium
26. The mammary gland is made up of how many lobes that are usually separated by connective tissue and adipose tissue
- 30 – 50 lobes
 - 50 -100 lobes
 - 15 – 20 lobes
 - 5 – 10 lobes
 - Less than 5 lobes
27. The space between the trabeculae of the spleen is filled with lymphatic tissue which is the
- Peyer's patches
 - Splenic pulp
 - Splenic nodes
 - Lymphatic follicles
 - Yellow pulp
28. The organelle that specializes in digestive and delivery of nutrients to the entire cell is
- Golgi body
 - Centrioles
 - Glycogen
 - Endoplasmic reticulum
 - Nucleolus
29. The oesophagus consists of the following four layers except
- Mucosa
 - Submucosa
 - Muscularis externa
 - Serosa
 - Pylorus
30. The smallest particle of living matter that is able to reproduce is called
- Karyosome
 - Nucleolus
 - Nucleus
 - Centriole
 - protoplasm

Section B

31. a) Discuss the functions of the basement membrane (10 marks)
b) Discuss the connective tissue of special purpose (10 marks)
32. a) Describe the general histologic features of the small intestine (10 marks)
b) Draw and label the human cell and outline the functions of the organelles (10 marks)