

MASENO UNIVERSITY
SCHOOL OF MEDICINE
DEPARTMENT OF HUMAN ANATOMY
PROGRAM MB,C&B
YEAR ONE

END OF TERM 1
HISTOLOGY

CONTINUOUS ASSESSMENT TEST

DATE: 1ST APRIL 2016 TIME: 3 HOURS 9.00-12.00 NOON

Instructions

This paper has 4PARTS.

Answer all questions in each section.

PART I MCQ TYPE III- 30 questions

PART II MCQ- TRUE/FALSE (10 questions)

PART III SHORT ESSAY QUESTIONS

PART IV DIAGRAMS 6 QUESTIONS.

PART V MCQ TYPE 4 MATCHING QUESTIONS(2 questions)



Part1: Mark the best answer(60 marks)

1. Neutrophils are best described as being:
 - a. Less numerous in peripheral blood than basophils.
 - b. Less numerous in peripheral blood than eosinophils
 - c. More numerous in peripheral blood than lymphocytes.
 - d. More numerous in patients with Schistosomiasis
 - e. Incapable of phagocytosis.

2. In the adult, haemopoiesis occur in the:
 - a. Spleen
 - b. Pancreas
 - c. Lymphnodes
 - d. Liver
 - e. Bone marrow of short, irregular and flat bones.

3. Regarding the immune system:
 - a. Activated T cells differentiate into plasmablasts.
 - b. Helper T cells are responsible for secondary immune response.
 - c. Plasma cells are freely circulating in the blood.
 - d. Each lymphocyte recognises several specific antigens.
 - e. Lymphokines enhance the action of macrophages.

4. The following cell type is involved in phagocytosis:
 - a. Mast cells
 - b. Reticulocytes
 - c. Fibroblasts
 - d. Macrophages
 - e. Plasma cells

5. Which of the following is FALSE about the reticulo-endothelial system:
 - a. Is represented in the liver by Kupffer cells.
 - b. Extends to the alveoli of the lung.
 - c. Is also found in the bone marrow.
 - d. The spleen is a major component.
 - e. It does not extend to the brain.

6. Apocrine glands exist in the:
 - a. Sweat glands.
 - b. Breasts.
 - c. Sebaceous glands
 - d. All the above
 - e. None of the above.

7. The following are skin appendages except:



- a. Sweat glands
 - b. Sebaceous glands
 - c. hair
 - d. Finger nails
 - e. Meissners corpuscle .
8. The following parts of the sarcomere diminish when a skeletal muscle contracts.
- a. H-band
 - b. A-band
 - c. I-line
 - d. Z-line
 - e. M-line
9. A dense connective tissue lining the muscle fascicle is called
- a. Perimysium
 - b. Epimysium
 - c. Endomysium
 - d. Endometrium
 - e. Myomysium
10. Regarding the composition of blood choose the incorrect statement.
- a. Haematocrit level is 40-50 % in male adults
 - b. Haematocrit level is 40-60 % in female adults
 - c. Haematocrit level is reduced by hemodilution in pregnancy
 - d. Haematocrit level is 35- % in children upto 10 yr.
 - e. Haematocrit level is 40-60 % in new borns
11. The thyroid follicles are
- a. Located in the thymus
 - b. Contains pituicytes
 - c. Have cuboidal epithelium
 - d. Have squamous epithelium
 - e. Have stratified epithelium
12. Which structure is NOT abundant in the dermis ?
- a. Blood vessels
 - b. Glands
 - c. Muscle
 - d. Melanocytes
 - e. Nerves
13. This type of cell is NOT found in the central nervous system
- a. Stellate cells
 - b. Basket cells
 - c. Microglia cells
 - d. Dendrites
 - e. Purkinje cells



14. Regarding neurons which of the following is NOT true?
- Multipolar
 - Bipolar
 - Pseudounipolar
 - All the above
 - None of the above
15. A sarcomere extends between
- Two Z line
 - Two I bands
 - Two H zone
 - Two A bands
 - A Z and I line
16. During muscle contraction
- Sarcomers lengthen
 - Z lines thickens
 - The H and I bands width increase
 - A band remains unchanged
 - None of the above
17. A dense connective tissue lining the periphera nerve is called
- Perimysium
 - Epineuium
 - Endomycium
 - Endometrium
 - Myomycium
18. During the development of the blood cells, the lymphoid stem cells lineage will give rise to
- Erythrocytes
 - Platelets
 - B lymphocytes
 - Granulocytes
 - Basophils
19. Which of the following is not part of the epidermis
- stratum corneum
 - stratum besale
 - stratum germinativum
 - stratum spinosum
 - Hypodermis
20. Which one of the following is not a cell of the central nervous system.
- schwann
 - ependyma
 - neuron
 - astrocyte
 - Microglia
 - Corneal hair
21. Lymphoid tissue is not normally seen in
- Tonsils



- b. Stomach
 - c. The spleen
 - d. Thymus
 - e. Groin lymph nodes
22. Regarding the cartilage, the following are true except:
- a. Develops from mesenchymal cells
 - b. Matrix separate chondroblasts
 - c. Isogenous groups of chondrocytes are separated by condensation of matrix
 - d. Fibroblasts line the surface
 - e. Hyaline cartilage line articular surfaces
23. Which one of the following cells of the nervous system lines the central canal of the spinal cord
- a. Schwann
 - b. Ependyma
 - c. Neuron
 - d. Astrocyte
 - e. Microglia

For question 24 to 30 regarding bone tissue state true or false against each statement:

- 24. Origin is from mesodermal tissue
- 25. Formed from cartilage or fibrous membrane
- 26. Concentric bone lamellae formation is a feature of spongy bone
- 27. Calcium deposition is a feature of spongy bone
- 28. Bone growth occur in the epiphysis
- 29. Osteon is the structural unit of bone
- 30. Haversian canal is a feature of spongy bone

Part 2: write true or false against each question (10marks)

- 31. The neurons ability to respond provide rapid reaction to external stimuli _____
- 32. The cortex of the thymus is packed with immature and maturing plasma cells _____
- 33. Hassals corpuscles are found in the spleen _____
- 34. The white pulp of the spleen forms the bulk of the organ _____
- 35. Renewal of epidermis takes place at the stratum germinativum _____
- 36. The pressure receptors are located at the papillary layer of the dermis _____
- 37. In the cardiac muscles, the fascia adherens anchor actin fillaments _____
- 38. The epithelium lining the ventricle of the brain is composed of microglia _____
- 39. The trachea is lined with ciliated stratified epithelium _____



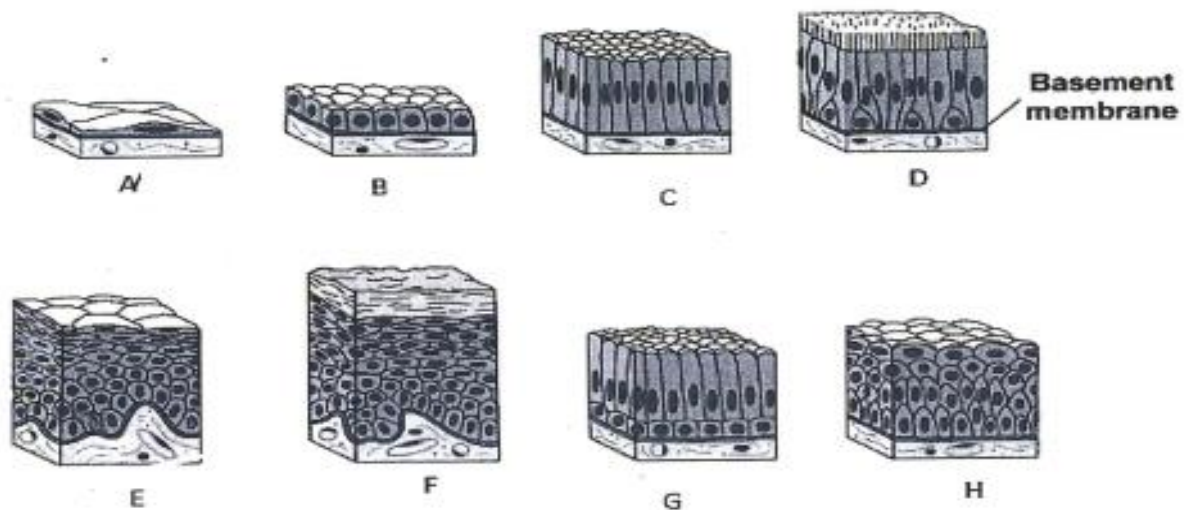
40. The melanocytes belong to diffuse neuroendocrine system.

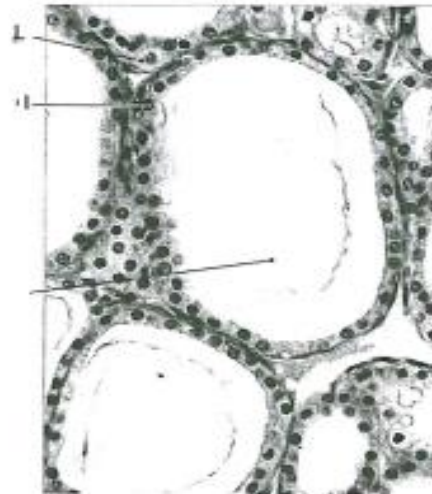
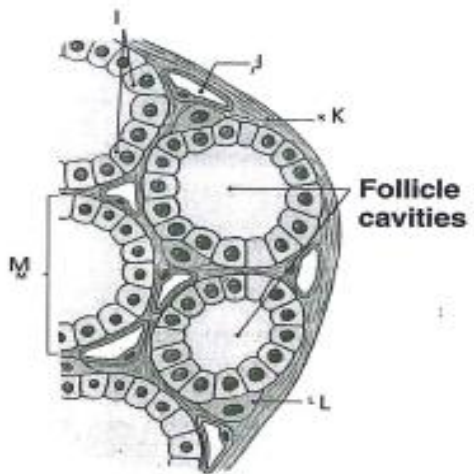
Part 3: short answer questions (10marks each)

- 41. Classify muscle tissue and state the functional unit of muscle.
- 42. List the 5 appendages of the skin and state their functions.
- 43. Describe the structure of a typical neuron and list 5 types of organelles found in the neuron.
- 45. List the cells found in the loose connective tissue.
- 46. State the main characteristics of hyaline cartilage.

Part 4: DIAGRAMS.

Q47. label the diagrams in the box provided (13marks)



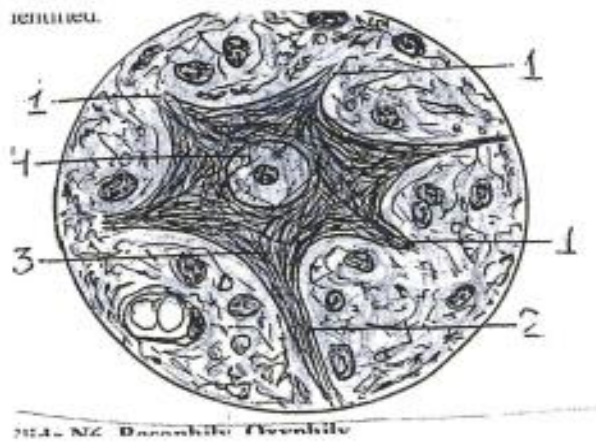


A	I
B	J
C	K
D	L
E	M
F	
G	
H	

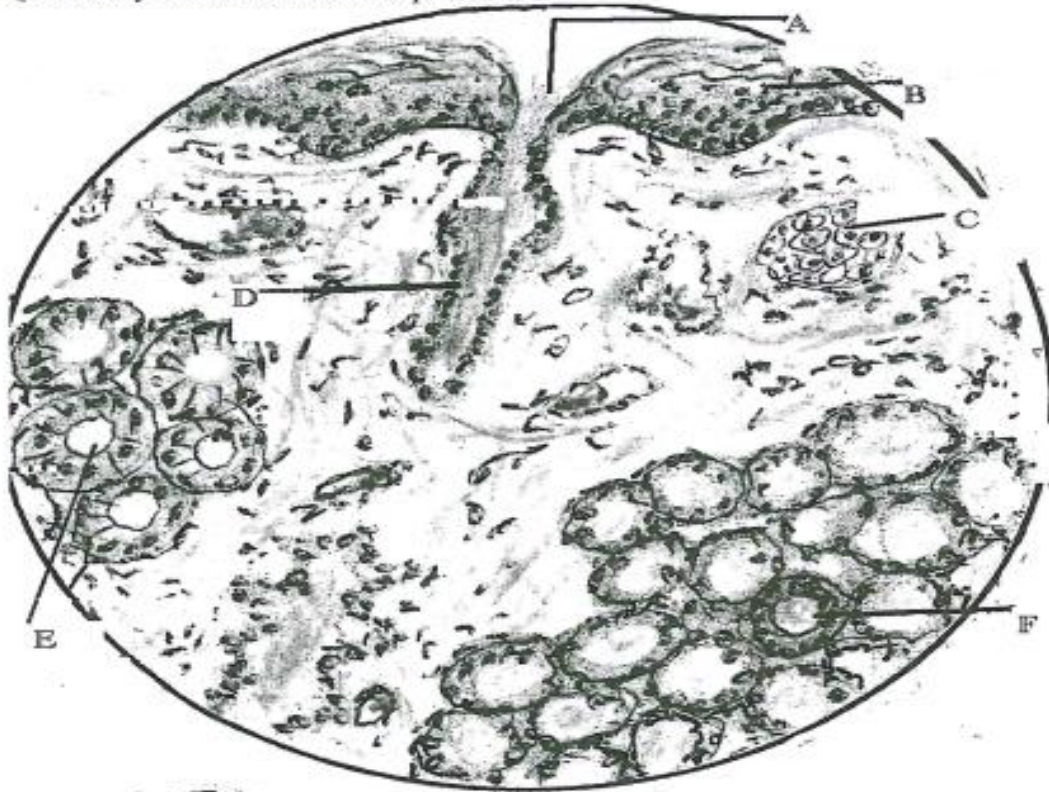


PART 4: LABEL THE DIAGRAMS BELLOW

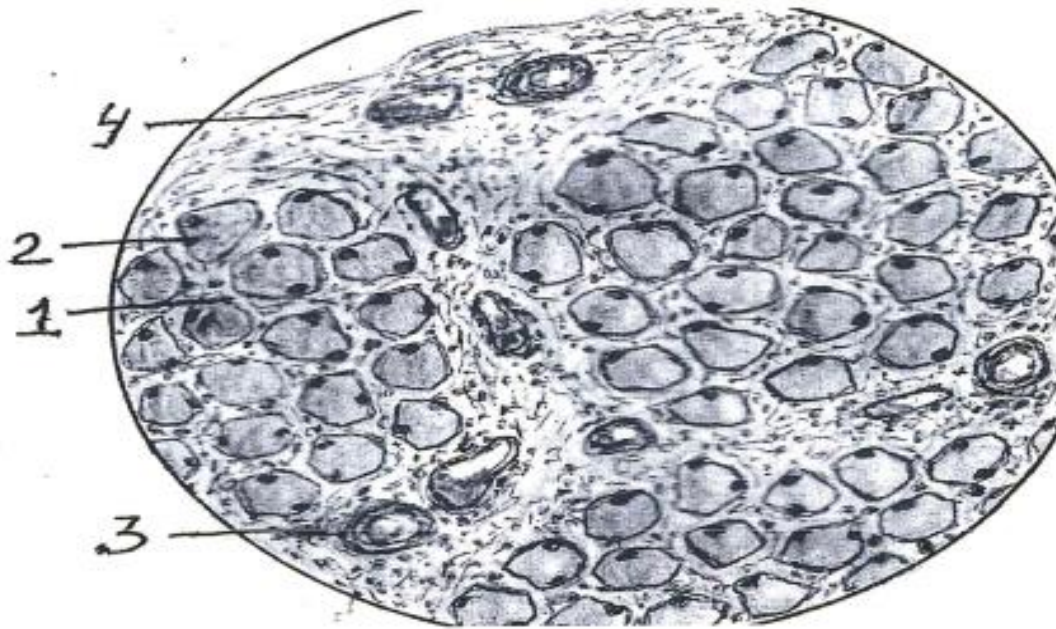
Q48. Identify structure and label the parts 1 to 4.



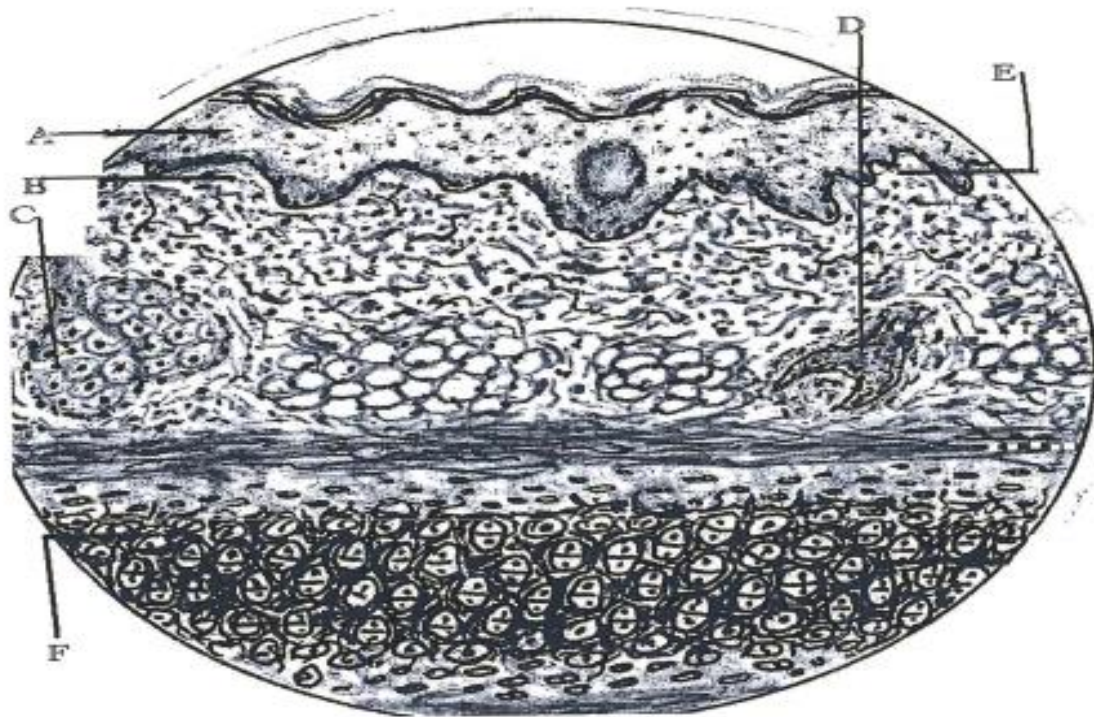
Q49. Identify structure and label the parts A to F



Q50. Identify structure and label the parts 1 to 4.



Q52. Identify structure and label the parts A to F



PART 5 MCQ TYPE 4: MATCHING QUESTIONS (20 MARKS)
CHOOSE THE MOST APPROPRIATE LETTERED ITEM,(A-G), TO THE
NUMBERED ONE (1-5) AND MARK IT (X) IN THE ANSWER SHEET.

Q53. Concerning lining of the respiratory system, match items in Panel I to those in II.

PANEL I

- 1.Larynx
- 2.Trachea
- 3.Alveolar wall
4. Terminal bronchiole
5. Epiglottis
- F . sustentacular cell
- G. goblet cell

PANEL II

- A. ciliated columnar
- B. Hyaline cartilage
- C. central elastic cartilage
- D. clara cells
- E. dust cells

- H. receptor cell.

Q54. Concerning cell nucleus,match items in Panel I to II

PANEL I

1. No nucleus
2. Centrally located nucleus
3. Peripheral multinucleated
4. Indented sperical nucleus
5. Segmented single nucleus

PANEL II

- A. Neuron
- B. Erythrocyte

- C. Fat cell
- D. Skeletal muscle
- E. Neutrophil
- F.Oligodendrocyte
- G.Lymphocyte

