

1) One of the following is INCORRECT about the bone ?

Select one:

- a. The organic components are mainly formed by collagen type I
- b. The inorganic components are responsible for its rigidity
- c. Medullary bone mainly formed by trabeculae
- d. The periosteum covers the outer surfaces of bone trabeculae
- e. Compact bone and spongy bone have the same chemical composition

2) Reticulocytosis refers to-----?

Select one:

- a. An increase in the number of reticular cells in the bone marrow.
- b. A drop in the reticulocyte count of a blood film below 1%.
- c. A rise in the reticulocyte count of a blood film more than 1%.
- d. A rise in the reticulocyte count of a blood film more than 10 %.
- e. A rise in the reticular cell count in connective tissue

3) The leucocyte with the longest life spanis?

Select one:

- a. Plasma cells
- b. Memory cells
- c. Lymphocytes
- d. Macrophages
- e. Cytotoxic T- cells



4) The cell motility can be demonstrated in the following cells EXCEPT?

Select one:

- a. The red blood corpuscles.
- b. The blood platelets.
- c. The neutrophils.
- d. The basophils.
- e. The monocytes.

5) What type of tissue makes up the deep dermis of the skin?

Select one:

- a. Mucoïd connective tissue
- b. Reticular connective tissue
- c. Loose irregular connective tissue
- d. Dense irregular connective tissue
- e. Dense regular connective tissue

6) Class II MHC antigens are expressed on the following cells ———?

Select one:

- a. Endothelial cells
- b. Bone cells
- c. Red blood cells
- d. T-lymphocytes
- e. Macrophages



7) The antigen for cluster of differentiation present in ?

Select one:

- a. Different types of lymphocytes
- b. Granular leucocytes
- c. Glycocalyx of platelets
- d. Glycocalyx of RBCs
- e. Monocytes and macrophages

8) Which of the following is INCORRECTLY paired ?

Select one:

- a. Elastic cartilage.....does not calcify with age
- b. Articular cartilage.....collagen type I
- c. Interstitial growth.....nasal and costal cartilages
- d. Perichondrium.....Eustachian tube
- e. Interstitial growth.....articular surfaces in joints

9) Pseudostratified Columnar ciliated epithelium is a feature of\_?

Select one:

- a. Ureter
- b. Skin
- c. Kidney
- d. Oviduct
- e. Trachea



10) The blood picture of a young male patient showed the following values: RBCs count  $5 \times 10^6 / \text{mm}^3$ , total WBCs count  $6000 / \text{mm}^3$ , platelet count  $100,000 / \text{mm}^3$ . Accordingly, the comment on this blood picture would be?

Select one:

- a. Acase of anemia.
- b. Acase of leucocytosis.
- c. A case of thrombocytopenia.
- d. Acase of thrombocytosis.
- e. Acase of leucopenia.

11) Which cell is a liver macrophage?

Select one:

- a. Fibroblast
- b. Kupffer cells
- c. Histiocyte
- d. Plasma cell
- e. Langerhans cell

12) Neuroepithelium is NOT present in one of the following?

Select one:

- a. Taste buds.
- b. Refina.
- c. Seminiferous tubules.
- d. Ear
- e. Nose



13) The discoid shape of the blood platelets is preserved by-----?

Select one:

- a. Actin and myosin in the hyalomere
- b. Subplasmalemmal protein complex
- c. Microtubules in the hyalomere
- d. Dense tubular system in the hyalomere
- e. Open canalicular system

14) What type of tissue is a tendon composed of?

Select one:

- a. Mucoïd connective tissue
- b. Reticular connective tissue
- c. Loose areolar connective tissue
- d. Dense irregular connective tissue
- e. Dense regular connective tissue

15) Which connective tissue cell is derived from B lymphocytes?

Select one:

- a. Fibroblast
- b. Macrophages
- c. Plasma cell
- d. Mast cell
- e. Alveolar macrophages



16) What cell surface modification is made of microtubules?

Select one:

- a. Microvilli
- b. Stereocilia
- c. Cilia
- d. Keratinization
- e. Flagella

17) Which of the following is NOT primarily composed of connective tissue?

Select one:

- a. Blood
- b. Bone
- c. Tendon
- d. Intervertebral disc
- e. Cardiac muscles

18) Which of the following components not found in the matrix of rib cartilage?

Select one:

- a. Water
- b. Chondroitin sulphate
- c. Troponin
- d. Keratan sulphate
- e. Hyaluronic acid



19) it is possible to identify the sex of a person by examining his blood film. This is by the observation of?

Select one:

- a. The surface antigens on the RBCs.
- b. Barr's body attached to the nuclear chromatin of lymphocytes.
- c. Barr's body attached to the nuclear chromatin of polymorphonuclear leucocytes.
- d. CD antigens on the surface of leucocytes.
- e. MHC antigen

20) One of the following is CORRECTLY matched?

Select one:

- a. Woven bone..... osteoid
- b. Prebone.....secondary bone
- c. Bundle bone.....lamellar bone
- d. Bundle bone.....prebone
- e. Cancellous bone.....medullary bone

21) in a four years old child, his myeloid tissue comprises?

Select one:

- a. Yellow bone marrow in all bones EXCEPT the proximal epiphyses of long bones.
- b. Red bone marrow in the flat bones and yellow marrow in the rest of his bones.
- c. Red bone marrow in the flat and long bones.
- d. Red bone marrow in flat bone only
- e. Yellow bone marrow the distal end of long bones.



22) Which of the following is NOT true regarding the osteon in compact bone?

Select one:

- a. The primary cell type within the mineralized bone of the osteon is the osteoclast
- b. It is composed of concentric lamellae of mineralized material
- c. Blood vessels reach the osteons from the bone marrow through the Volkmann's Canals
- d. Lamellae in between osteons are called interstitial lamellae.
- e. The central component is the Haversian Canal which contains blood vessels and nerves

23) One of the following is INCORRECT regarding the periosteum and endosteum?

Select one:

- a. The endosteum vascular fibrous sheath covering the exterior of flat and long bone
- b. The periosteum has Sharpey's fibres
- c. The cellular layer of the periosteum contains osteoprogenitor cells
- d. The articulating surfaces are not covered by the periosteum
- e. The endosteum contains single layer of squamous osteoprogenitor cells

24) One of the following is INCORRECT about structure and arrangement of the osteon?

Select one:

- a. The collagen fibres arranged spirally within the osteon
- b. Outer circumferential lamellae is a lamellar bone
- c. Interstitial lamellae situated underneath the outer surface of the bone
- d. Interstitial lamellae represents the remaining of old osteons
- e. Inner circumferential lamellae located around the marrow cavity





25) Tarsal gland is \_?

Select one:

- a. Simple coiled tubular gland.
- b. Simple branched tubular gland.
- c. Simple branched tubulo- alveolar gland.
- d. Compound tubular gland.
- e. Simple branched alveolar

26) Which of the following would be best suited to differentiate reticular fibers from other fibers?

Select one:

- a. Osmic acid
- b. Hematoxylin and eosin stain
- c. Sudan stain
- d. Silver stain
- e. VVG stain

27) What type of tissue tends to increase as humans age?

Select one:

- a. Loose areolar tissue
- b. White fibrous tissue
- c. Unilocular adipose tissue
- d. Multilocular adipose tissue
- e. No change with age



28) One of the following is CORRECTLY matched?

Select one:

- a. Osteoblast-w—w—long cellular processes
- b. Osteoclast-mum- secrete acid phosphatase
- c. Osteocyte ----- inert cells
- d. Osteoblast ----- secrete coHagenase
- e. Osteoclast ----- secrete alkaline phosphatase

29) The blood picture of a patient shows a total leucocytic count 17,000/ mm<sup>3</sup> and Lymphocytes 20 % this probably goes with the diagnosis of -----?

Select one:

- a. Parasitic infection
- b. Acute bacterial infection
- c. Chronic infection
- d. Malaria
- e. Bronchial asthma

30) Metachromasia -----?

Select one:

- a. Staining of a tissue by the color of the original stain
- b. Staining of a tissue by a color differs from the original stain
- c. Staining of granules of plasma cells by a red color after toluidine blue
- d. Staining of phagocytic cells by trypan blue
- e. Staining of granules of eoinophils by a red color after toluidine blue



31) On examining a blood film, the cell in which the cytoplasmic granules are obscuring the nucleus is-----?

Select one:

- a. The monocyte.
- b. The large sized lymphocyte.
- c. The eosinophil.
- d. The basophil.
- e. Neutrophils

32) What do you call the simple squamous epithelium that lines the blood vessels?

Select one:

- a. Epithelioid tissue
- b. Mesothelium
- c. Endothelium
- d. Transitional
- e. Pseudostratified

33) One of the following statements is correct concerning the gap junction ?

Select one:

- a. The intercellular space is narrowed to about 3 nm.
- b. A type of anchoring junction.
- c. Its plaque is attached to actin filaments.
- d. Integrin protein is a component of membrane protein
- e. Present between the cell and CT



34) One of the following is INCORRECT concerning the Chondroblasts?

Select one:

- a. They change to form chondrogenic cells
- b. They differentiated from the perichondrium
- c. They are not surrounded by lacunae
- d. They have basophilic cytoplasm
- e. They provide collagen and proteins

35) Which of the following is NOT a term used for a neutrophil?

Select one:

- a. Polymorphonuclear
- b. Neutrophils
- c. Microphages
- d. Pus cell
- e. Mast cell of the blood

36) Each of the following statements concerning B cells is true EXCEPT?

Select one:

- a. They can differentiate into plasma cells
- b. They are derived from bone marrow
- c. They contain non specific granules
- d. They kill virus-infected cells.
- e. They are responsible for humeral immune response



37) The lining epithelium of the pleura is?

Select one:

- a. Simple columnar.
- b. Simple cuboidal.
- c. Simple squamous.
- d. Pseudostratified columnar.
- e. Mesothelium

38) One of the following glands is a holocrine one?

Select one:

- a. Liver
- b. Sebaceous gland
- c. Mammary gland.
- d. thyroid gland.
- e. Parotid gland

39) How can neutrophils and monocytes reach an infection site from the blood stream?

Select one:

- a. The blood vessels rupture at a site of infection
- b. Neutrophils and monocytes are amoeboid and can pass through capillary walls
- c. They are small and diffuse across membranes just like food and gas molecules.
- d. They move upstream in the lymph system
- e. T-lymphocyte differentiates into neutrophils and monocytes when it arrives at the site of infection



40) Which one of these cells is not a cell type routinely found in loose connective tissue?

Select one:

- a. Fibroblast
- b. Microglia
- c. Histiocyte
- d. Plasma cell
- e. Mast cell

