

# Histology MCQs/Mock Credit Test A

Mock credit test. Only one answer is correct, minimal score is 18 points.

**1** Which of following techniques can be used as a staining for a connective tissue?

- ☐ Silver impregnation
- ☐ Masson's trichrome
- ☐ PAS reaction
- ☐ orcein

**2** Which structure is stained by Feulgen's reaction?

- ☐ polysaccharides
- ☐ lipids
- ☐ DNA
- ☐ RNA

**3** Intermediate filaments:

- ☐ we have more than 50 of different intermediate filaments
- ☐ they are often associated with motor proteins
- ☐ main structural proteins are cytokeratins
- ☐ main structural protein is actin

**4** Kinesins:

- ☐ are motor proteins associated with microfilaments
- ☐ are motor proteins associated with microtubules
- ☐ are type of microtubules
- ☐ are type of mikrofilaments

**5** Cytokinesis:

- ☐ is a cell movemet mediated by cillia
- ☐ is final stage of mitotic divison
- ☐ is an amoeboid movement of cells
- ☐ is a kind of cell death

**6** Lipofuscin:

- ☐ is mainly inside cells with high growth-rate
- ☐ is an extracellular crystallic material
- ☐ is an intracellular waste product
- ☐ is used for production of mucus

**7** Mucus (mucinous) cells:

- ☐ have round nucleus with prominent nucleolus
- ☐ their product is PAS positive
- ☐ are also inside pancreas
- ☐ produce mainly enzymes

**8** Basal annealing:

- ☐ its main function is thigt anchoring to the basal membrane
- ☐ is common in all epithelial cells
- ☐ contains numerous mitochondria
- ☐ contains numerous ribosomes

**9** Brush border:

- ☐ main supportive structure are intermediate filaments



Leonid Pasternak (1862-1945): Night Before Exam

- ☐ is composed of crista (see anatomy ;- ) and undulations
- ☐ takes place on apical pole of some epithelial cells
- ☐ is composed of cilia

**10** Desmosome:

- ☐ is responsible for mechanical cohesivity
- ☐ is not associated with the cytoskeleton
- ☐ anchors the cell to the basal membrane
- ☐ is a long belt-like structure

**11** Kinocilia (cilia):

- ☐ they are on cells of pseudostratified epithelium of respiratory passages
- ☐ their supportive structure are intermediate filaments
- ☐ one cell can have only one cilium
- ☐ are immotile

**12** Which cell adhesion does not take place in the intercalated disc?

- ☐ zonula occludens
- ☐ fascia adherens
- ☐ gap junction
- ☐ desmosome

**13** Heparinocytes:

- ☐ are fixed cells of connective tissue
- ☐ usually have two or three nuclei
- ☐ produce heparine and histamine
- ☐ produce antibodies

**14** Fibrocartilage:

- ☐ fibrillar component of its ECM contains type I collagen
- ☐ is main cartilage of articular cartilages
- ☐ has pronounced perichondrium
- ☐ is highly vascularized

**15** Elastic fibers:

- ☐ are clearly visible in slides stained with basic techniques
- ☐ can be stained with aldehyde fuchsin
- ☐ can be stained with alcian blue
- ☐ are PAS positive

**16** Osteoclast:

- ☐ its nucleus has wheel-like arranged chromatin
- ☐ is a multinucleated cell
- ☐ is activated osteocyte
- ☐ produces osteoid

**17** Secondary bone is:

- ☐ woven
- ☐ spongy
- ☐ compact
- ☐ lamellar

**18** White adipose tissue:

- ☐ adipocytes have usually short life-span
- ☐ its main function is heating
- ☐ adipocytes are unilocular
- ☐ is avascular

**19** Glycoproteins:

- ☐ contain usually glycogen
- ☐ contain usually hyaluronic acid
- ☐ contain usually oligosaccharides
- ☐ contain usually glycosaminoglycans

**20** Which protein is main protein of reticular fibers?

- ☐ collagen I
- ☐ collagen II
- ☐ collagen III
- ☐ collagen IV

**21** Loose connective tissue is main material of:

- ☐ subepithelial layer of mucosa
- ☐ organ capsula
- ☐ dermis
- ☐ tendon

**22** Myofibrils:

- ☐ are inside smooth muscle cells
- ☐ are composed of sarcomeres
- ☐ are type of cytoskeleton
- ☐ contain calmodulin

**23** Tropomyosin:

- ☐ increases mechanical stiffness of the muscle
- ☐ is storage of energy in the muscle fibre
- ☐ prevents binding of myosin to actin
- ☐ binds calcium

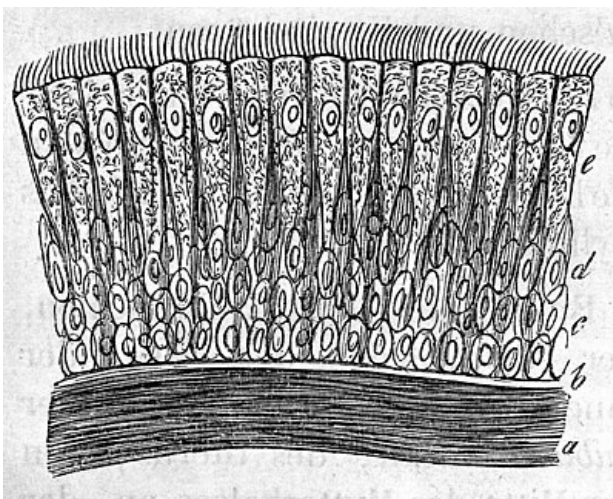
**24** Glial cells:

- ☐ protoplasmic astrocytes have wide processes
- ☐ fibrillary astrocytes are mainly in gray matter
- ☐ oligodendrocytes do not have processes
- ☐ myelin is produced by mikroglia

**25** Neurons:

- ☐ action potential begins in initial segment (hilus) of the axon
- ☐ GFAP is an immunohistochemical marker of neurons
- ☐ neurons have no more than one dendrite
- ☐ neurons are mitotically active

**26** Which type of epithelium is most probably on the schema?



- ☐ stratified squamous with keratinization
- ☐ pseudostratified columnar

- ☐ simple columnar
- ☐ none of above mentioned

**27**Eosinophils:

- ☐ their percentage in the blood (inside vessels) is about 40-60 %
- ☐ specific granules contain main basic protein (MBP)
- ☐ contain metachromatic granules
- ☐ have small round nucleus

**28**What is not true for monocytes?

- ☐ they are the biggest blood (inside vessels) cells
- ☐ they are main players of humoral immunity
- ☐ they contain azurophilic granules
- ☐ they give rise macrophages

**29**Red bone marrow:

- ☐ medullary period of hematopoiesis starts after the birth
- ☐ takes place inside cavities of some long bones only
- ☐ its stroma contains reticular connective tissue
- ☐ contains plenty of adipocytes

**30**Retikulocyte:

- ☐ is not in the peripheral blood
- ☐ has long branching processes
- ☐ its cytoplasm is basophilic
- ☐ has no nucleus

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## Links

- List of all tests: Histology MCQs
- Portal:Histology