

# 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 cristae (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 cartillages
- has pronounced perichondrium
- is highly vaskularized

**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 capsulla
- 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

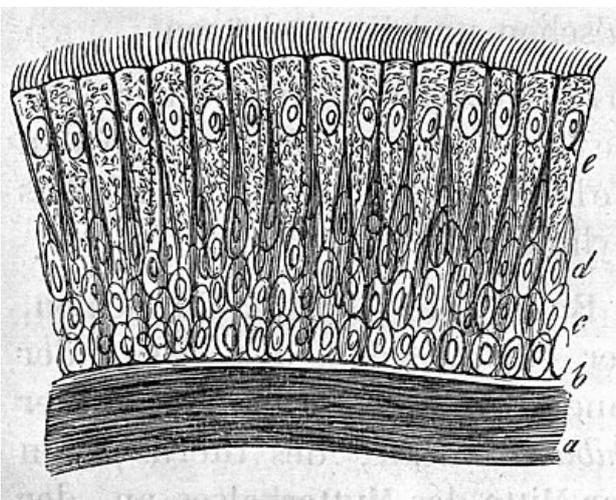
**24** Glial cells:

- 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** Reticulocyte:

- 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