

Quiz 2

Epithelium

MCQs – X type (true or false)

1. Stratified squamous non-keratinized epithelium:
 - a. Lines blood vessels
 - b. Is adapted to withstand abrasive forces
 - c. Is avascular
 - d. Is anchored on its basal surface to a basement membrane
 - e. Forms an absorptive surface

2. Cilia:
 - a. Are branched forms of microvilli
 - b. Form a brush border in absorptive cells
 - c. Are motile structures on the surface of some epithelial cells
 - d. Are inserted into basal bodies
 - e. Have 9+2 microtubule arrangement

3. Gap junctions:
 - a. Are found in cardiac muscle
 - b. Are characterized by close apposition of cell membranes
 - c. Are the most apical of junctions
 - d. Prevent flow of materials through the intercellular space
 - e. Allow the passage of small signaling molecules between cells

4. The basement membrane:
 - a. Stains positively with the periodic acid-Schiff (PAS) technique
 - b. Is composed of type IV collagen
 - c. Has no basal lamina
 - d. Is produced by the connective tissue alone
 - e. Is in direct contact with the epithelial basal domain

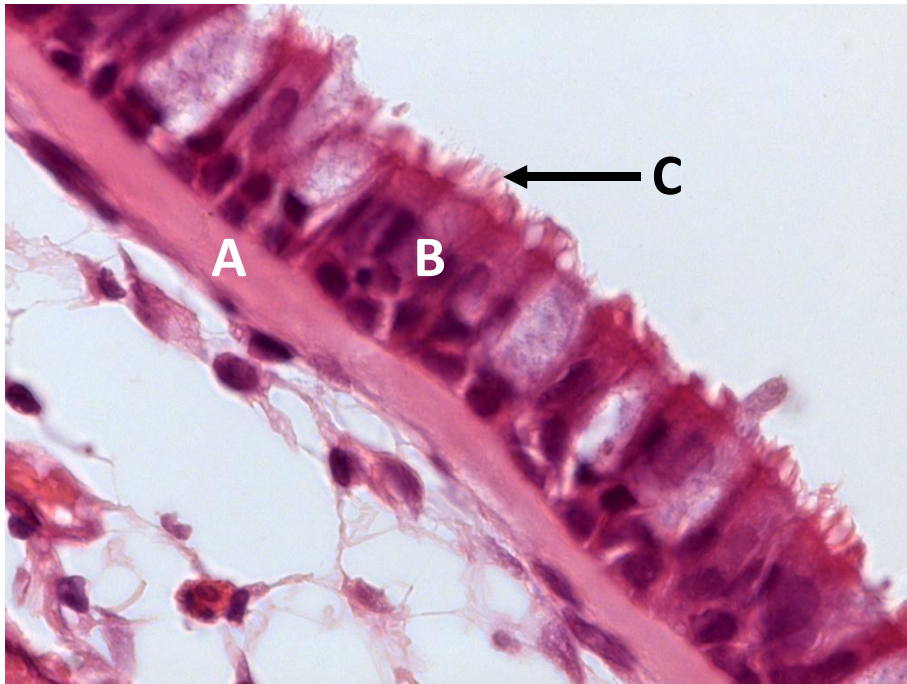
5. Transitional epithelium:
 - a. Lines the urinary bladder
 - b. Contains goblet cells
 - c. Is classified as a stratified epithelium
 - d. Has a secretory function
 - e. Has a distinct basement membrane

Short answer questions

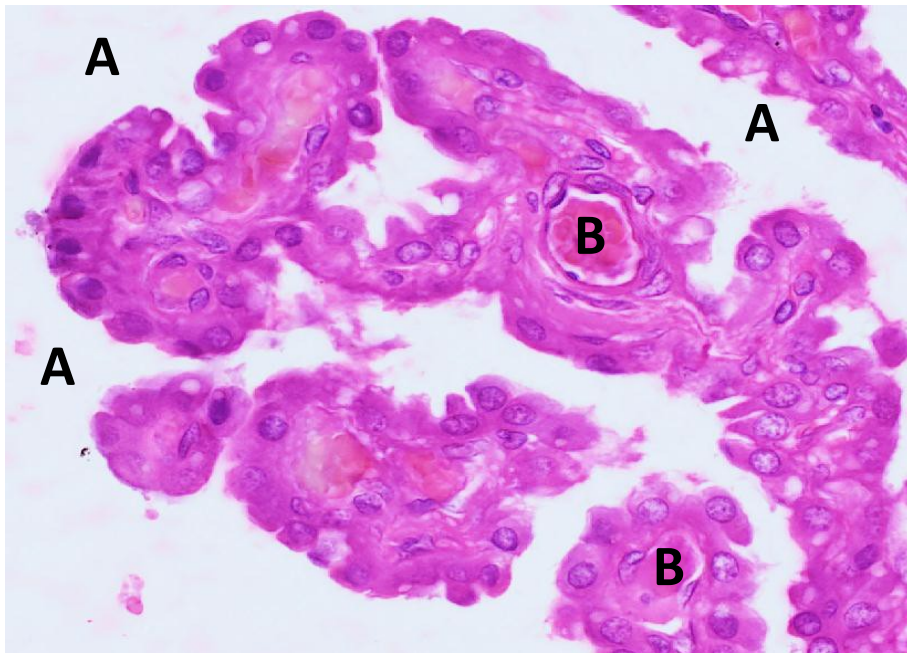
1. Describe the histological structure and function of the choroid plexus (4 marks)
2. Illustrate by means of a fully labeled diagram the histological structure of transitional epithelium in the relaxed state. Add a note on the changes that occur in the stretched state (5 marks)
3. Complete the following table with regard to the specializations of the apical domain of epithelium (8 marks)

| Specialization | General Structure | Movement | Location | Function |
|-----------------------|--------------------------|-----------------|-----------------|-----------------|
| Microvilli | | | | |
| Stereocilia | | | | |
| Cilia | | | | |

Spotters



1. Identify the structure labeled A and give its main function (1 mark)
2. Classify the epithelium, labeled B. Give an example of where this type of epithelium might be located in the human body (2 marks)
3. Identify C and give its main function (1 mark)



1. Classify the epithelium lining the space labeled A (1 mark)
2. Classify the epithelium lining the structure labeled B. (1 mark)
3. Identify the structure depicted in the photomicrograph and give its main function (2 marks)