



Quiz Time

Histology 2

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Histology 2

1. What is the primary purpose of histological techniques?

- A. To study the chemical composition of tissues
- B. To prepare tissue sections for microscopic examination
- C. To analyze genetic material within cells
- D. To observe live tissue reactions under a microscope

Answer: B. To prepare tissue sections for microscopic examination

2. Which of the following is NOT a common method of tissue preparation for microscopic examination?

- A. Routine microscopic examination
- B. Histochemistry and cytochemistry
- C. Immunocytochemistry
- D. Magnetic resonance imaging (MRI)

Answer: D. Magnetic resonance imaging (MRI)

3. What is the main reason tissues need to be sliced into thin sections for light microscopy?

- A. To enhance staining properties
- B. To allow light to pass through the tissue
- C. To increase tissue rigidity
- D. To facilitate chemical reactions within the tissue

Answer: B. To allow light to pass through the tissue

4. During tissue processing, what is the purpose of fixation?

- A. To dehydrate the tissue
- B. To harden the tissue and preserve its structure
- C. To embed the tissue in paraffin
- D. To stain the tissue components

Answer: B. To harden the tissue and preserve its structure

5. Which fixative is most commonly used in histological techniques?

- A. Bouin's solution
- B. Formalin 10%
- C. Glutaraldehyde
- D. Osmium tetroxide

Answer: B. Formalin 10%

6. Why is gradual dehydration of tissue samples important during processing?

- A. To prevent tissue shrinkage
- B. To enhance staining affinity
- C. To increase tissue transparency
- D. To facilitate embedding

Answer: A. To prevent tissue shrinkage

7. What is the purpose of clearing in tissue processing?

- A. To remove lipids from the tissue
- B. To replace alcohol with a medium compatible with paraffin
- C. To enhance tissue staining
- D. To fix the tissue components

Answer: B. To replace alcohol with a medium compatible with paraffin

8. During embedding, what medium is commonly used to harden the tissue externally?

- A. Celloidin
- B. Paraffin wax
- C. Resin (Epon)
- D. Agarose gel

Answer: B. Paraffin wax

9. Which instrument is used to cut thin sections of tissue embedded in paraffin?

- A. Ultramicrotome
- B. Cryostat
- C. Rotary microtome
- D. Vibratome

Answer: C. Rotary microtome

10. After sectioning, how are tissue sections typically mounted on microscope slides?

- A. By air drying
- B. Using adhesive substances
- C. By warming on a hot plate and drying in an incubator
- D. By freezing

Answer: C. By warming on a hot plate and drying in an incubator