لجنة
طب الأسنان

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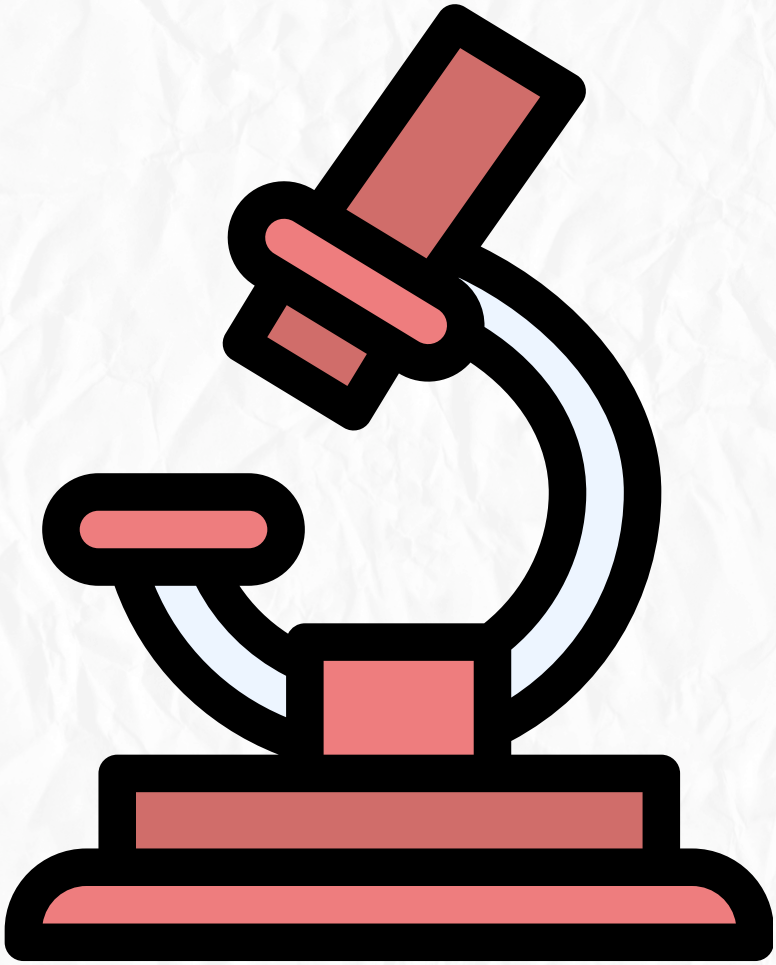
Histology

Quiz time



Histological techniques

Lec2

What is the most common fixative used for routine Light Microscopy (L.M)?
A) Glutaraldehyde
B) Osmium tetroxide
C) Formol saline (10% Formalin)
D) Absolute alcohol

Answer: C)

In the paraffin technique, dehydration is achieved by using:
A) Xylol
B) Ascending grades of alcohol
C) Descending grades of alcohol
D) Distilled water

Answer: B)

Which step makes the tissue translucent and prepares it for paraffin infiltration?

A) Fixation
B) Sectioning
C) Clearing
D) Staining

Answer: C)

The instrument used to cut paraffin sections for light microscopy is called:
A) Ultramicrotome
B) Cryostat
C) Rotary Microtome
D) Centrifuge

Answer: C)

Which technique is used for rapid diagnosis during surgical operations?
A) Paraffin technique
B) Freezing technique
C) Celloidin technique
D) Electron microscopy

Answer: B)

What is the main embedding medium used for Transmission Electron Microscopy (TEM)?
A) Paraffin wax
B) Hard paraffin
C) Epoxy resin
D) Soft paraffin

Answer: C)

Which of the following is used to clear tissues in the preparation for Electron Microscopy?
A) Xylol
B) Propylene oxide
C) Benzene
D) Chloroform

Answer: B) Propylene oxide

For Electron Microscopy, the thickness of the sections should be:
A) 5 - 10 microns
B) 50 - 100 (nm)
C) 1 - 2 millimeters
D) 20 microns

Answer: B)

Lec 3

Most tissues are colorless, so we use stains to:

A) Increase the size of the cells

B) Visualize and distinguish different parts of cells

C) Kill the bacteria in the tissue

D) Dehydrate the tissue

Answer: B)

Which of the following is a "Physical stain" that dissolves in tissue without a chemical reaction?

A) Hematoxylin

B) Eosin

C) Sudan III

D) Methylene blue

Answer: C)

Hematoxylin is a basic dye (+ve charged) that stains:

A) Basic structures like cytoplasm

B) Acidic structures like the nucleus (DNA/RNA)

C) Lipids and fats

D) Elastic fibers

Answer: B)

The term "Acidophilia" refers to structures that are stained red/pink by:

A) Hematoxylin

B) Eosin

C) Silver stain

D) PAS stai

Answer: B) Eosin

Which staining method involves injecting a non-toxic dye into a "living animal"?

A) Supravital stain

B) Vital stain

C) Metachromatic stain

D) Polychromatic stain

Answer: B)

Staining "living tissues outside the body" (like reticulocytes) is known as

A) Vital stain

B) Supravital stain

C) Routine stain

D) Physical stain

Answer: B)

When using Toluidine blue to stain Mast cells, the color changes from blue to purple. This is called:
A) Polychromatic staining
B) Metachromatic staining
C) Orthochromatic staining
D) Simple staining

Answer: B)

Which special stain is used to detect Carbohydrates and Mucin, giving a magenta color?
A) Sudan III
B) Orcein stain
C) Periodic acid-Schiff (PAS)
D) Silver stain

Answer: C)

To demonstrate "Lipids" (fats) in a tissue section, we can use:
A) Hematoxylin
B) Osmic acid (black color)
C) Giemsa stain
D) Trypan blue

Answer: B)

Which stain is commonly used for staining "Blood films" to show multiple colors?
A) Orcein stain
B) Giemsa or Leishman stain
C) Silver stain
D) Sudan II

Answer: B)

Lec 4

The primary aim of Histochemistry is to:

A) Count the number of cells in a tissue

B) Identify and localize specific cellular structures using enzymatic activity

C) Kill the cells for preservation

D) Change the DNA sequence of the cell

Answer: B)

In Enzyme Histochemistry, the final product must be:

A) Soluble and colorless

B) Insoluble and visible (colored or electron-dense)

C) Gaseous

D) Liquid and transparent

Answer: B)

Which technique uses "labeled antibodies" to identify specific proteins (antigens) in a cell?

A) Routine H&E staining

B) Immunocytochemistry

C) Phase contrast microscopy

D) Exfoliative cytology

Answer: B)

In Immunocytochemistry, if the antibody is tagged with a "fluorescent compound," the technique is called:

A) Enzyme Histochemistry

B)Silver staining

C)Immunofluorescence

D) Autoradiography

Answer: C

Which microscope is best for examining "living cells and tissues" in culture?

A) Transmission Electron Microscope (TEM)

B) Phase contrast microscope

C) Scanning Electron Microscope (SEM)

D) Fluorescence microscope

Answer: B)

The light source used in a Fluorescence Microscope is:
A) Visible white light
B) Ultraviolet (UV) rays
C) Electron beams
D) Laser only

Answer: B)

Which type of Electron Microscope is used to study the "internal structures" (organelles) of the cell?
A) Scanning EM (SEM)
B) Transmission EM (TEM)
C) Phase contrast microscope
D) Polarizing microscope

Answer: B)

In TEM, the areas that appear "dark" because they block electrons are called:
A) Electron lucent
B) Electron dense
C) Fluorescent
D) Radioactive

Answer: B)

The Scanning Electron Microscope (SEM) provides an image that is:
A) Two-dimensional (2D)
B) Three-dimensional (3D)
C) Only black and white dots
D) Inverted and transparent

Answer: B)

Exfoliative Cytology" is a technique used to examine:
A) Cells scraped or shed from body surfaces (e.g., Pap smear)
B) Large blocks of solid organs
C) Only dead tissues
D) Genetic mutations in DNA only

Answer: A)

سُبْحَانَكَ اللهُـمّ وَبِحَمْدِكَ ، أشهد أن لاَ
إِلَهَ إِلاَّ أَنْتَ ، أَسْتَغْفِرُكَ وَأَتُوبُ إِلَيْكَ.