

**2023**

**MEDICAL LABORATORY TECHNICIAN /  
MEDICAL LAB AND MOLECULAR  
DIAGNOSTIC TECHNOLOGY**

**Paper : MLT/MDT-VE-5036**

**( Pathology—V )**

**Full Marks : 60**

**Time : 3 hours**

*The figures in the margin indicate full marks  
for the questions*

- 1. Fill in the blanks : 1×7=7**
- (a) Demonstration of glycogen can be done by using \_\_\_\_\_.
  - (b) Petrol can be used as \_\_\_\_\_ in histopathology.
  - (c) \_\_\_\_\_ is used, to remove formalin pigments from tissue sections.
  - (d) Fixation is done to prevent autolysis and \_\_\_\_\_.
  - (e) \_\_\_\_\_ fixative can be used in electron microscopy.
  - (f) Haematoxylin is extracted from the tree \_\_\_\_\_.
  - (g) EDTA can be used as \_\_\_\_\_ in histopathology laboratory.

2. Answer the following questions :

- (a) Name some decalcifying agents. Which one is more suitable decalcifying agent with minimum tissue damage?
- (b) What do you mean by progressive and regressive staining?
- (c) List out the characteristics of good clearing agents.
- (d) Write briefly about naturally ripened haematoxylin.

3. Answer any *three* of the following questions :  
5×3=15

- (a) Write a brief note on tissue processing.
- (b) What are the important points to be noted prior to tissue sectioning?
- (c) Classify haematoxylin and explain briefly according to the mordant used.
- (d) Write a note on grossing.
- (e) Write about the mode of action of fixative. Classify fixative along with examples.

4. Answer the following questions : 10×3=30

- (a) What are the formalities you have to perform while processing a biopsy specimen? Explain in detail.

( 3 )

Or

What is the principle of cryostat sectioning? Write a note on cryostat sectioning.

- (b) Name the connective tissue fibres. Write down the principle, procedure and results of any trichrome stain.  $3+7=10$

Or

List out the problems you might face during tissue sectioning and find out the solution.

- (c) What do you mean by pigments? Classify and explain in detail.  $1+9=10$

Or

Draw a labelled diagram of microtome. Explain about honing and stropping.

$4+3+3=10$

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