



RY-003-38402

Seat No. _____

**B. Voc. Medical Laboratory & Molecular
Diagnostic Technology (Sem. IV) Examination**

March - 2019

MLMDT-4.2 : Histopathology & Cytology

Faculty Code : 003

Subject Code : 38402

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :**
- (1) All questions are compulsory.
 - (2) The paper is divided in to two sections.
 - (3) No separate OMR sheet will be provided for Section - I.
 - (4) Figures on right indicate marks.

SECTION - I

- 1 Answer the following MCQ : **20**
- (1) Give basic components of all types of connective tissue.
 - (2) How tissue for study can be obtained?
 - (3) Define: special stains.
 - (4) State use of DPX.
 - (5) Define: Histopathology.
 - (6) Enlist calcified/firm tissues.
 - (7) Give examples of Microtome.
 - (8) What is IHC.
 - (9) Small chemical groups on the antigen molecule that can react with antibody is known as _____.
 - (10) Reticulin staining is used for diagnosis of _____.
 - (11) Define : affinity of antibody.

- (12) Define: Cytology.
- (13) What is IF.
- (14) Define: Plastination.
- (15) Minot microtome also known as _____
- (16) _____ is used for examination of cervical cells.
- (17) Define : Maceration.
- (18) What are triggers for neoplastic transformation ?
- (19) Give major parts of Microtome.
- (20) Define: Chatter effect.

SECTION - II

- 2** (a) Answer in brief : (any **three**) **3×2=6**
- (1) What are the features of malignant tumor?
 - (2) Discuss on Tumor Nomenclature.
 - (3) Define Histotechniques and Decalcification.
 - (4) Explain Adhesives along with examples
 - (5) Define IHC and IF.
 - (6) Define Museum techniques and Histopathology.
- (b) Answer in brief : (any **3**) **3×3=9**
- (1) What is Fixative and write on its ideal properties.
 - (2) Write a note on technique to obtain biopsy tissue.
 - (3) Draw chart and explain about steps in ImmunoHistoChemistry.
 - (4) Difference between Wax sectioning and Frozen section.
 - (5) What are the advantages of plastination over routine method ?
 - (6) Enlist examples of different types of Staining.

(c) Answer in brief : (any 2) **2×5=10**

- (1) Write a brief note on rotary Microtome.
- (2) Write the role of immunohistochemistry in diagnosis from tissue.
- (3) Write in detail about tumor staging and grading.
- (4) Brief on types and collection method of Bronchial specimen.
- (5) Note on cryostat.

3 (a) Answer in brief : (any 3) **3×2=6**

- (1) What are major routes of Tumor spread?
- (2) Note on types of Antibodies used in IHC and IF.
- (3) What are basic steps in Museum specimen techniques?
- (4) Write on pathogenesis of cancer.
- (5) Note on smear preparation and its types.
- (6) What is fine needle aspiration technique? Write its use.

(b) Answer in brief : (any 3) **3×3=9**

- (1) Write a note on basic steps of IHC.
- (2) Explain Papanicolau test.
- (3) Explain the principle of hematoxylin and eosin staining.
- (4) What is exfoliative cytology and enlist types of specimens along with its recommended use.
- (5) Enlist the steps of tissue processing.
- (6) Discuss on Kaiserling method.

(c) Answer in brief : (any 2)

2×5=10

- (1) Write in detail on various steps of Tissue Processing from Dehydration to Embedding.
- (2) Write about various Special Staining techniques in histopathological diagnosis.
- (3) Write a brief note on Plastination.
- (4) Describe various types of microtomes with advantages and disadvantages.
- (5) What is IF and how it is done? Write in detail.
