

**B.Sc. IN MEDICAL LABORATORY  
TECHNOLOGY (BMLT)**

**Term-End Examination**

**June, 2016**

00416

**BAHI-008 : HISTOPATHOLOGY AND CYTOLOGY**

*Time : 3 hours*

*Maximum Marks : 70*

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**Note :** *The question paper has three parts, Parts A, B and C. Attempt any **three** questions from Part A. Attempt **all** the questions from Parts B and C.*

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**PART A**

*Answer any **three** questions. Each question carries 10 marks.*

1. Describe the preparation of stain, steps of staining and precautions in the use of Haematoxylin and Eosin (H and E) staining in histopathology. 2+6+2
2. Define and classify fixatives giving examples. List the advantages and disadvantages of formalin as a fixative. 2+2+6

3. List the various types of microtomes giving one application of each. Describe how you will take care of a rotary microtome. 3+3+4
4. Describe the functions of the technologist in a fine-needle aspiration cytology (FNAC) laboratory, with reference to procedure, processing, staining, submission for reporting, record maintenance, slide storage and quality control. 2+2+1+1+1+1+2

## PART B

5. Write short notes on any *four* of the following :  $4 \times 5 = 20$

- (a) Pap stain
- (b) Labelling of tissues taken for processing from gross specimen
- (c) Stain for iron
- (d) Paraffin block preparation
- (e) Clearing agents

6. Write briefly on any *two* of the following :  $2 \times 5 = 10$

- (a) Automation in histotechnology
- (b) Immuno-staining
- (c) Liquid-based cytology

## PART C

7. Indicate *true (T)* or *false (F)* for the following :  $5 \times 1 = 5$

- (a) Plastic embedded sections are used to study bone morphology and mineralization.
- (b) The most commonly used mounting medium in histopathology is DPX.
- (c) Reticulum stain demonstrates mucin in the tissues.
- (d) Bone marrow biopsies are usually stained by the Giemsa or MGG stain.
- (e) Bouin's fluid is the fixative of choice for testicular biopsies.

8. Fill in the blanks.

$5 \times 1 = 5$

- (a) Graded alcohols are used in tissue processing as \_\_\_\_\_ agents.
- (b) A commonly used preservative for mounting of museum specimens in pathology is \_\_\_\_\_.
- (c) Mayer's egg albumin is used on slides as an \_\_\_\_\_.
- (d) The instrument on which tissue cassettes are rotated through the steps of dehydration, clearing and impregnation is called \_\_\_\_\_.
- (e) A wrongly labelled specimen is an example of a \_\_\_\_\_ error.