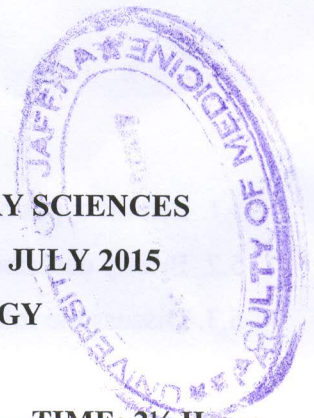UNIVERSITY OF JAFFNA, SRI LANKA

BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES

THIRD YEAR SECONDSEMESTER EXAMINATION- JULY 2015

MLSCH 3203 CLINICAL HISTOTECHNOLOGY

PAPER II

DATE: 27.07.2015   TIME: 2½ Hours

ANSWER ALL EIGHT QUESTIONS

1.

1.1. Briefly describe the characteristic features of the sample collection container for

histopathology.   (20 marks)

1.2. Describe the factors you would consider on setting up a new cut up room

in a histology laboratory.   (40 marks)

1.3. Briefly explain the duties of a Medical Laboratory Technologist in sample

receiving counter for histopathology.   (40 marks)

2.

2.1. Define the term "fixation" in histotechnology.   (10 marks)

2.2. What are the properties of an ideal fixative?   (30 marks)

2.3. State the mechanism of action of formalin in tissue fixation.   (20 marks)

2.4. Enumerate the advantages and disadvantages of formalin fixative.   (40 marks)

3. Write short notes on

3.1. Profile of microtome knife.   (30 marks)

3.2. Automatic knife sharpening.   (30 marks)

3.3. Decalcification.   (40 marks)

4.

4.1. Briefly describe "Progressive" and"Regressive" staining.   (30 marks)

4.2. Discuss the 3main types of dyes used in staining procedure by giving examples.

(70 marks)

5.

    5.1. List the types of microtomes used in clinical histotechnology.   (20 marks)

    5.2. Briefly describe the basic features and uses of each mentioned in 5.1.   (60 marks)

    5.3. Discuss the role of water bathin histology laboratory   (20 marks)

6.

    6.1. List threereagents and their uses that are used in tissue processing.   (20 marks)

    6.2. Briefly explain the steps in automatic tissue processor and give examples
        of reagents used in each step.   (60marks)

    6.3. What are the common problems of bad processing?   (20 marks)

7. Write shorts notes on following and give examples where necessary

    7.1. Vital staining.   (25 marks)

    7.2. Metachromatic staining.   (25 marks)

    7.3. Mordant.   (25 marks)

    7.4. Accentuators.   (25 marks)

8.

    8.1. Describe the steps in cytopreparatory techniques.   (40 marks)

    8.2. Briefly describe the factors affecting optimal cytological preparation.   (30 marks)

    8.3. Discuss the advantages of Fine Needle Aspiration Cytology (FNAC).   (30 marks)