

9th
Batch

FACULTY OF ALLIED HEALTH SCIENCES, UNIVERSITY OF RUHUNA
 Department of Medical Laboratory Science
 Year End Examination, Year 3 - 2015/2016 (9th) Batch
 MLS 3101- Histopathology & Cytopathology – Essay

Date: 09th April 2021

Time: 9.00 a.m. – 11.00 a.m.

Duration: 2 hours

Index Number:

Instructions: Answer 4 out of 5 questions. Answer each question in a separate booklet.

1.
 - 1.1 Define neoplasia giving examples. (20 marks)
 - 1.2 Describe the morphological features of malignant cells. (40 marks)
 - 1.3 Describe how you would assess a sample of tissue received for histopathology to decide on acceptance/rejection for processing in your laboratory. (40 marks)

2.
 - 2.1 List **three** methods/platforms used for immunohistochemistry in a diagnostic laboratory. (10 marks)
 - 2.2 Describe the value of controls in immunohistochemistry. (30 marks)
 - 2.3 Explain the possible reasons for the following in immunohistochemistry staining.
 - 2.3.1 Both control and test sample are negative for the marker. (20 marks)
 - 2.3.2 The positive control stains negative and the test sample stains positive. (10 marks)
 - 2.4 Describe how you would minimize background staining. (30 marks)

3.
 - 3.1 Briefly explain the scientific basis of staining by Papanicolaou stain. (50 marks)
 - 3.2 Discuss the advantages of using Papanicolaou stain for staining cervical smears. (30 marks)
 - 3.3 List **four** other samples that can be stained with Papanicolaou stain. (10 marks)
 - 3.4 List **two** methods for fixation of cytological preparations used in cytology. (10 marks)

4.
 - 4.1 Explain the scientific basis of the following processes done in a histopathology laboratory.
 - a) Tissue processing (30 marks)
 - b) H&E staining (40 marks)
 - 4.2 Explain the precautions that should be taken in microtomy to assure the safety of the operator. (30 marks)

5.
 - 5.1 Briefly describe the scientific basis of the following special staining techniques. (60 marks)
 - a) Masson's Fontana silver stain
 - b) Phosphotungstic acid haematoxylin (PTAH)
 - 5.2 Compare and contrast progressive and regressive staining techniques. (40 marks)