FACULTY OF ALLIED HEALTH SCIENCES, UNIVERSITY OF RUHUNA
Department of Medical Laboratory Science
Third End Semester Examination – 2019/2020 Batch - February 2023
MLS 2144 Basic Haematology – SEQ

Date: 13th February 2023   Time: 09.00 a.m. - 10.00 a.m.   Duration: 01 hour

Answer all questions.   Index Number: ....

01

1.1	Briefly explain **two** principles used in automated Full Blood Count (FBC) analyzer.	*20 marks*
1.2	List **five advantages** and **five disadvantages** of automated FBC analyzer.	*10 marks*
1.3	Briefly explain how spurious test results are generated in automated FBC analyzer giving different examples and parameters.	*50 marks*
1.4	State the instances where you would calibrate the automated FBC analyzer.	*20 marks*

02

A 40 years old female patient with past history of resection of terminal ileum in childhood presented with shortness of breathing on exertion. Her FBC revealed following results.

Hb 6.2 g/dl
MCV 115 fl
WBC 3.5×10^9/L
Platelet 98×10^9/L

2.1	Comment on above investigation findings.	*20 marks*
2.2	What is the most likely diagnosis? Explain your answer.	*15 marks*
2.3	List **five** abnormalities you would expect to see in her peripheral blood film as per the diagnosis mentioned in 2.2.	*25 marks*
2.4	List **three** abnormalities you would expect see in her bone marrow aspiration as per the diagnosis mentioned in 2.2.	*15 marks*
2.5	Mention other investigations which are useful to confirm your diagnosis and their expected results.	*25 marks*

03

3.1	Define the term 'Anaemia'	*10 marks*
3.2	Briefly describe the classification of anaemia based on red cell morphology giving examples.	*30 marks*
3.3	Briefly describe dimorphism in Iron deficiency anaemia (IDA).	*20 marks*
3.4	List **four** laboratory tests useful in the diagnosis of IDA and state the expected findings in each in IDA.	*40 marks*