School of Medical and Allied Sciences

Medical Lab Technology
ETE - Jun 2023

Time : 3 Hours **Marks : 100**

SEM IV - BMLS4002 - Applied Haematology – I
Your answer should be specific to the question asked
Draw neat labeled diagrams wherever necessary

1.	Enumerate about ESR by Wintrobe's tube method. Mention its principle, uses, normal values and clinical significance	K1 CO2	(5)
2.	Explain the significance of various stains used in hematology with examples	K2 CO3	(5)
3.	How would you define DLC? Add a note on its principle, method and normal values.	K1 CO1	(5)
4.	Explain the clinical implications of having abnormally high or low Packed Cell Volume (PCV).	K2 CO3	(10)
5)	Analyze and compare a sample of seminal fluid with a high viscosity, discuss how this could interfere with the microscopic examination and the sperm motility assessment.	K4 CO2	(10)

OR

	How would you corelate significant fluctuations in Absolute Neutrophil Count (ANC) suggest about a patient's health?	K4 CO2	(10)
6.	Apply your knowledge and compare the application of Wright's stain, Field's stain, and JSB stain on a peripheral blood smear. Which one is best for differentiating leukocytes and why?	K3 CO2	(10)
7.	Solve that there is a possibility of morphological changes in cells during the preparation of a blood film, how would you ensure the accuracy of the results while taking into account the limitations of the procedure?	K3 CO1	(10)
8.	Evaluate how does the presence of abnormal cells in pleural fluid affect clinical decision.	K5 CO2	(15)
9)	Argue that if you were tasked to develop a standardized protocol for macroscopic and microscopic examination of seminal fluid, what steps would you include and why?	K5 CO3	(15)

OR

	Evaluate How would you design a detailed plan for a comprehensive evaluation of a patient's hematological status, considering normal and absolute values, physiological variations in Hb, PCV, TLC and Platelets.	K5 CO3	(15)
10.	Analyse Why is it important to examine the CSF in diagnosing neurological conditions.	K4 CO1	(15)