2024

MEDICAL LABORATORY TECHNICIAN/MEDICAL LAB AND MOLECULAR

DIAGNOSTIC TECHNOLOGY

Paper: MHS0200304

(Clinical Pathology and Haematology)

Full Marks: 45
Time: 2 hours

The figures in the margin indicate full marks for the questions.

1. Fill in the Blanks: 1x5=5
   a) The primary function of cerebrospinal fluid is to _____ the brain and spinal cord.
   b) What is the most common. haemoglobin variant in individuals with sickle cell disease _____
   c) The presence of blood in stool is known as _____
   d) The erythrocyte sedimentation rate (ESR) is a common blood test used to detect_____ in the body.
   e) Urine specimen if delayed in transportation to laboratory needs to be refrigerated at _____ temperature.

2. Answer the following in brief: (Any Five) 2x5=10
   a) Name the five main types of leukocytes found in a differential leukocyte count (DLC)?
   b) Advantages of Romanowsky stain.
   c) Write about semen liquefaction.
   d) Explain G6PD deficiency.
   e) Principle ofLeishman's stain.
   f) Write any two functions of haemoglobin.
   g) Principle of Erythrocyte sedimentation rate.
   h) Name two preservative for sputum?
   i) Define osmotic fragility?
   j) Define advantage of automation in haematological technique?

3. Answer any four of the following : 5x4=20
   a) Differentiate between transudate and exudates?
   b) Briefly define about Macroscopic examination of urine?
   c) Discuss the procedure of bone man-ow aspiration and biopsy?
   d) Write a short note on pleural fluid?
   e) Define clinical significance of sputum?
   f) Describe the composition of cerebrospinal fluid and its function?
   g) Discuss briefly about Automation in haematology?
   h) What is semen analysis and What ctoes it measure?

4. Answer any one from the following: 10x1=10
   a) Explain the different types of haemoglobin variants? Discuss changes in red blood cell shape & strncture due to various haemoglobin variants?
   b) Describe in details about Macroscopic examination of stool?
   c) Explain the formation and clinical significance of CSF?
   d) Explain how does the body produce urine? Name two preservative of urine?