B.Voc (NEP) 1st Semester (FYUGP) Exam., 2024

MEDICAL LAB AND MOLECULAR DIAGNOSTIC TECHNOLOGY/MEDICAL LABORATORY TECHNICIAN

Paper : MHS0100304

(Introduction to Pathology)

Full Marks : 45

Time : 2 hours

The figures in the margin indicate full marks for the questions

1. Fill in the blanks : 1×5=5

(a) The universal donor blood group is _____.

(b) _____ refers to the reduction in the number of red blood cells or haemoglobin.

(c) The process of white blood cell formation is known as _____.

(d) The cell injury due to oxygen deprivation is known as _____.

(e) The blood component responsible for clotting is _____.

2. Answer any *five* from the following questions in short: 2×5=10

(a) List any two types of laboratory hazards.

(b) What is a hematocrit? Why is it important?

(c) Mention two effects of anaemia on the body.

(d) Define acute inflammation.

(e) Name the main types of cells involved in inflammation.

(f) Briefly describe the purpose of using vacutainers.

(g) What does MCV stand for? Why is it measured?

(h) Define pathology.

(i) List two systemic effects of chronic inflammation.

(j) Describe the importance of hand hygiene in a laboratory setting.

3. Answer any *four* from the following questions: 5×4=20

(a) Differentiate between reversible and irreversible cell injury.

(b) What are the precautions for preserving patient samples during transport?

(c) Describe the procedure for collecting CSF.

(d) Discuss the use and importance of personal protective equipment (PPE).

(e) Outline the functions and related pathologies of platelets.

(f) What are the common laboratory hazards and precautions?

(g) Describe different types of antico-agulants used in laboratories.

(h) What are the steps in the collection and preservation of urine samples?

4. Answer any *one* from the following questions: 10

(a) Describe in detail the types of laboratories and the aspects of their setup.

(b) Explain the biochemistry of ABO blood grouping and its clinical significance. 7+3=10

(c) Describe the composition of blood and its function with a focus on red and white blood cells. 6+4=10

(d) Describe the different branches of pathology and their focus areas.

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