



BRAINWARE UNIVERSITY

Term End Examination 2025-2026

Programme – DMLT-2023/DMLT-2024

Course Name – Histopathology & Blood Banking

Course Code - DMLT401

(Semester IV)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) The material used for labelling of tissue in Histopathology lab is _____.
 - a) Glass Marker
 - b) Diamond Pen
 - c) Graphite Pencil
 - d) Ink pen
- (ii) Select the melting temperature of Paraffin wax.
 - a) 68°C
 - b) 45°C
 - c) 58°C
 - d) 65°C
- (iii) Identify the Clearing Agent.
 - a) Absolute Alcohol
 - b) Toluene
 - c) DPX
 - d) Mayer's Albumin
- (iv) In H & E Stain, Eosin produces Pink colour to -
 - a) Nucleus
 - b) Cytoplasm
 - c) RBC
 - d) Polysaccharides
- (v) The main purpose of Fixation -
 - a) Putrification
 - b) To prevent from Autolysis
 - c) Dehydration
 - d) All of these
- (vi) Identify the use of Chloroform.
 - a) Dehydration
 - b) Impregnation
 - c) Infiltration
 - d) Clearing
- (vii) What is the main anticoagulant used in blood storage bags?
 - a) Heparin
 - b) EDTA
 - c) Citrate Phosphate Dextrose (CPD)
 - d) Formalin
- (viii) Which of the following tests is mandatory for donated blood before transfusion?
 - a) Liver function test
 - b) Kidney Function Test
 - c) HIV and Hepatitis screening
 - d) Hemoglobin Electrophoresis

- (ix) What is the self-life of stored whole blood in CPDA with SAGM anticoagulant?

 - a) 7 Days
 - b) 21 Days
 - c) 35 Days
 - d) 42 Days

(x) What is the purpose of blood component separation?

 - a) To prevent Blood from Clotting
 - b) To increase blood volume
 - c) To allow targeted transfusion therapy
 - d) To provide long shelf Life

(xi) What does TTI stand for in blood banking?

 - a) Transfusion Table Index
 - b) Thrombocyte Transfusion Indicator
 - c) Transfusion Transmitted Infections
 - d) Total Thrombin Interaction

(xii) Which screening test is commonly used to detect HIV in blood donors?

 - a) Rapid Antigen Test
 - b) ELISA
 - c) PCR
 - d) Western Blotting

(xiii) What is the principle of the indirect Coomb's test?

 - a) Detects antibodies bound to red blood cells
 - b) Detects unbound antibodies in the plasma
 - c) Identifies clotting factor deficiencies
 - d) Determines hematocrit levels

(xiv) A blood donor experiences mild dizziness after donation. What should be the first step in management?

 - a) Allow the donor to leave immediately
 - b) Sit or lie down immediately, preferably with their feet raised
 - c) Perform an ECG to rule out cardiac issues
 - d) Ask the donor to run for 5 minutes to improve circulation

(xv) A healthy 25-year-old male wants to donate blood. He had a tattoo done two months ago. What should be advised?

 - a) He can donate immediately
 - b) He should wait for 4 months before donating
 - c) He should undergo liver function tests first
 - d) He should not donate blood at all

Group-B

$$3 \times 5 = 15$$

OR

Group-C

 $5 \times 6 = 30$

OR