



BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – B.Sc.(MRIT)-2022/B.Sc.(MRIT)-2023/B.Sc.(MRIT)-2024

Course Name – Clinical Biochemistry & General Pathology

Course Code - BMRITC102

(Semester I)

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) Microtitre Well Plate is composed of:

- | | |
|------------------|------------------------|
| a) Polypropylene | b) Poly vinyl Chloride |
| c) Polystyrene | d) Nylon |

(ii) SLE is primarily categorized as:

- | | |
|-----------------------|------------------------|
| a) Metabolic disorder | b) Autoimmune disorder |
| c) Infectious disease | d) Genetic disorder |

(iii) The levels of Sodium & potassium are recorded in :

- | | |
|----------------------------------|------------------|
| a) Semi auto Analyzer | b) Cell Counter |
| c) Ion selective electrode (ISE) | d) None of these |

(iv) Identify below the toxicity can occur due to single exposure .

- | | |
|--------------------------|------------------------|
| a) Acute toxicity. | b) Sub acute toxicity. |
| c) Sub chronic toxicity. | d) Chronic toxicity. |

(v) Which gland mainly controls and regulates the actual thyroid activity?

- | | |
|--------------------|-----------------|
| a) Pituitary gland | b) Hypothalamus |
| c) Parathyroid | d) Both A and B |

(vi) Name the condition marked by a low TSH?

- | | |
|-------------------|--------------------|
| a) Hypothyroidism | b) Hyperthyroidism |
| c) Goitre | d) Thyroid Cancer |

(vii) Choose the most common malignant tumor found in Indian male :

- | | |
|----------|----------------|
| a) Liver | b) Prostate |
| c) Lung | d) Oral cavity |

(viii) Choose the proper explanation of necrosis

- | | |
|--------------------------|---------------------------|
| a) Cellular degeneration | b) Death of group of cell |
| c) Death of single cell | d) Reversible cell damage |

(ix) Predict the durable material that is used to make glasswares:

- a) Polythelene
c) Borosilicate
- b) Soda lime
d) Polystyrene
- (x) Cancer in plasma cell is identified as:
a) Carcinoma
c) Adenoma
- b) Sarcoma
d) Myeloma
- (xi) State the medical imaging technique that is often used to guide needle biopsies:
a) X-Rays
c) MRI
- b) Ultrasound
d) CT Scans
- (xii) In order to stop the reaction between enzyme and substrate, what process is needed?
a) incubate the sample at high temperature
c) wash the sample with PBS and Tween
- b) Add the strong acid to the sample
d) Add blocking sample
- (xiii) What is tracer in radioimmunoassay?
a) Radioactive antigen
c) Rediolabeled antibody
- b) Unlabeled antigen
d) Unlabeled antigen
- (xiv) In acute inflammation, which events occur in the correct chronological order?
a) transient vasoconstriction, stasis of blood flow, increased permeability, vasodilation
c) vasodilation, increased permeability, stasis of blood flow, neutrophil accumulation
- b) transient vasoconstriction, increased permeability, vasodilation, stasis of blood flow
d) neutrophil accumulation, vasodilation, increased permeability, stasis of blood flow
- (xv) Embolism can be defined as:
a) A type of bacteria
c) A heart disease
- b) A blockage caused by a traveling clot
d) A skin rash

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Define hypertrophy and state its physiological significance. (3)
3. Write a short note on sandwich ELISA. (3)
4. Mention about the basic working principle of colorimeter. (3)
5. Classify necrosis with examples. (3)
6. Analyse based on which characteristic features physician can confirm about systemic lupus erythematosus. (3)

OR

Analyze the features by which physician can assume for autoimmune diseases. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Differentiate apoptosis and necrosis. (5)
8. Illustrate the term cellular adaptation. (5)
9. Define free radical and explain how it triggers the cell injury. (5)
10. Analyze the principle based which Centrifugation works to separate particles. (5)
11. Explain: chronic inflammation is the unregulated outcome of acute inflammation. (5)
12. Summarize the mode of carcinogenesis by genetic, chemical and microbial agents. (5)

OR

Assess the mode of spread of tumors. (5)
