



BRAINWARE UNIVERSITY

Term End Examination 2023-2024

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

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) Name the condition marked by a low TSH?
- a) Hypothyroidism b) Hyperthyroidism
c) Goitre d) Thyroid Cancer
- (ii) This condition of chronic inflammation of the thyroid leading to under-activity is
- a) Thyroiditis b) Goitre
c) Hypothyroidism d) Hyperthyroidism
- (iii) Which of following are the components of radioimmunoassay?
- a) Rediolabeled Antigens b) Monoclonal Antibodies
c) Unlabeled Antigens d) All of these
- (iv) Write the application of Autoclave used for sterilization
- a) Principle of autoclave b) Application in diagnostic lab
- (v) Which of the following immune cell is unable to phagocytose
- a) neutrophils b) macrophages
c) T-cells d) monocytes
- (vi) State the laboratory department that studies antigen-antibody reaction:
- a) Chemistry b) Microbiology
c) Pathology d) Immunology
- (vii) Predict the durable material that is used to make glasswares:
- a) Polythelene b) Soda lime
c) Borosilicate d) Polystyrene
- (viii) The process that destorys all the microorganisms including spores are:
- a) Volcanization b) Sterilization
c) Disinfection d) Asepsis
- (ix) Microtitre Well Plate is composed of:
- a) Polypropylene b) Poly vinyl Chloride
c) Polystyrene d) Nylon

- (x) Define neoplasia
 - a) Normal growth of tissue
 - b) Abnormal, uncontrolled growth of cells
 - c) Inflammation of tissues
 - d) Repair of damaged tissue
- (xi) The compound used for Chelation Therapy
 - a) Heparin
 - b) Tetracycline
 - c) EDTA
 - d) All of these
- (xii) Autoclaves are used in the medical applications to perform _____
 - a) Vulcanization
 - b) Sterilization
 - c) Heating
 - d) Cleaning
- (xiii) Rise in blood urea in pre-renal cases is mainly due to :
 - a) Dehydration
 - b) Multi organ failure
 - c) Due to renal failure
 - d) Increased urea synthesis
- (xiv) The Predominant extracellular cation is
 - a) Bicarbonate
 - b) Sodium
 - c) Potassium
 - d) Chloride
- (xv) ELISA (enzyme-linked immunosorbent assay) allows for rapid screening and quantification of the presence of _____ in a sample
 - a) DNA
 - b) Antigen
 - c) Amino acid
 - d) Protein

Group-B

(Short Answer Type Questions)

3 x 5=15

- 2. Define hyperplasia and give examples of the physiological and pathological hyperplasia (3)
- 3. Distinguish between transudate and exudate permeability (3)
- 4. Identify the instrument and write its principle used for biochemical assessment in laboratory diagnosis (3)
- 5. Differentiate between hemolytic jaundice and obstructive jaundice (3)
- 6. Evaluate the pattern of necrosis in a tissue. (3)

OR

Design a flowchart on the role of hypoxia in causing cell injury. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

- 7. Summarize the mode of carcinogenesis by genetic, chemical and microbial agents. (5)
- 8. Differentiate between water bath and incubator (5)
- 9. Explain Gestational diabetes (5)
- 10. Define free radical and explain how it triggers the cell injury (5)
- 11. Define inflammation and state about the etiological factors of inflammation (5)
- 12. Compile the causes of autoimmune diseases in the human being. (5)

OR

Design the stepwise procedure of ELISA (5)
