

**SET
A**

**BACHELOR OF MEDICAL LABORATORY
TECHNOLOGY
FIRST SEMESTER
BIOCHEMISTRY I
BMLT – 103 [REPEAT]
(USE OMR SHEET FOR OBJECTIVE PART)**

Duration: 3 hrs.

Full Marks: 70

(Objective)

Time: 30 min.

Marks: 20

$1 \times 20 = 20$

Choose the correct answer from the following:

- Examples of reducing disaccharides
 - Sucrose
 - Trehalose
 - Lactose
 - Glucose
- Amino acids which are highly basic in character.
 - Tyrosine, Tryptophan
 - Lysine, Arginine and Histidine
 - Methionine, Leucine and isoleucine
 - Serine, Threonine and Tyrosine
- Gelatin is an example of
 - Incomplete protein
 - Partially incomplete protein
 - Complete protein
 - Derived protein
- The steroids contain a cyclic ring known as
 - Cyclopentanoperhydrophenanthrene
 - Cycloparaphenylene
 - Cyclopentanophenanthrene
 - Cyclopentanophenylene
- Dicarboxylic mono-amino acids aspartic acid and glutamic acid are considered in which group
 - Polar amino acids (-ve R group)
 - Non- Polar amino acids(-ve R group)
 - Polar amino acids (+ve R group)
 - Non-Polar amino acids(+ve R group)
- Which one of the following is the structural protein
 - Keratin
 - Hemoglobin
 - Actin
 - Insulin
- Hydroxyl group containing amino acid
 - Serine
 - Lysine
 - Valine
 - Leucine
- The Amino acid found in protein structure
 - Valine
 - Arginine
 - Proline
 - Alanine
- Examples of Acidic amino acid
 - Lysine, Arginine
 - Histidine, lysine
 - Aspartic acid and glutamic acid
 - Tyrosine, phenylalanine

10. Carbohydrates are often referred as
 - a. Disaccharides
 - b. Monosaccharides
 - c. Saccharides
 - d. Polysaccharides
11. mostly produce by sugarcane and sugar beets
 - a. Maltose
 - b. Sucrose
 - c. Lactose
 - d. Galactose
12. Lactose is made up of
 - a. Glucose and glucose
 - b. Glucose and fructose
 - c. Fructose and galactose
 - d. Galactose and glucose
13. Examples of Disaccharides
 - a. Maltose, lactose, sucrose
 - b. Maltose, lactose, trehalose
 - c. Maltose, glucose, galactose
 - d. Maltose, lactose, glucose
14. Examples of Monosaccharides
 - a. Glucose, Fructose
 - b. Sucrose, maltose
 - c. Galactose, sucrose
 - d. Trehalose, sucrose
15. One of the following is not an aldose.
 - a. Glucose
 - b. Galactose
 - c. Mannose
 - d. Fructose
16. Which of the following is a saturated fatty acid?
 - a. Palmitoleic acid
 - b. Palmitic acid
 - c. Oleic acid
 - d. None of the above
17. The major fat in adipose tissue is
 - a. TAG
 - b. Cholesterol
 - c. Fatty acids
 - d. Phospholipids
18. Which of the following is not a phospholipid
 - a. Sphingomyelin
 - b. Cephalin
 - c. Cerebrosides
 - d. Lecithin
19. Hydrolysis of fat by alkalis is called
 - a. Esterification
 - b. Alkylation
 - c. Saponification
 - d. Mutarotation
20. Which of the following is not present in vegetable oils
 - a. Cholesterol
 - b. Oleic acid
 - c. Linoleic acid
 - d. Stearic acid

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Descriptive

Time : 2 hrs. 30 min.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

1. Define amino acids. Describe its classification with suitable examples. 10
2. Define protein. Describe its function and its classification. 2+8=10
3. Define lipids. Write its function. Describe its classification. Differentiate between fats and oils. 10
4. Define fatty acids. Describe essential fatty acids. Discuss saturated and unsaturated fatty acids. Write a short note on Phospholipids. 1+4+2+3=10
5. Discuss sucrose and lactose. Define cell. Differentiate between prokaryotic and eukaryotic cells. 4+1+5=10
6. Write the properties of lipids. Write a short note on Triacylglycerides and steroids. 5+5=10
7. Describe five important mucopolysaccharides. Write about the derivatives of Monosaccharides. 5+5=10
8. Write a short note on Saponification and Rancidity. Discuss on amino acid useful as drugs. 8+2=10

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