REV-01
BMLT/23/28

2023/06

SET A

BACHELOR OF MEDICAL LABORATORY TECHNOLOGY
FOURTH SEMESTER
BIOCHEMISTRY IV
BMLT – 403

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs. **Full Marks: 70**

(Objective)

Time: 30 min. **Marks: 20**

Choose the correct answer from the following: ***1×20=20***

1. Vitamin C deficiency cause:
   a. Scurvy
   b. Bleeding from teeth
   c. Both of the above
   d. None of the above

2. Beri beri is cause by:
   a. VitB 1
   b. Vit. C
   c. Vit. K
   d. Vit. D

3. The course code for fourth semester BMLT Biochemistry is:
   a. BMLT 402
   b. BMLT 303
   c. BMLT 403
   d. BMLT502

4. Clothing of blood is :
   a. Vit A
   b. Vit D
   c. Vit.K
   d. None of the above

5. Bitots spots caused due to deficiency of:
   a. Vit.A
   b. Vit.D
   c. Vit.C
   d. None of the above

6. Riboflavin is a part of:
   a. Vit.A
   b. Vit. B complex
   c. Vit.K
   d. None of the above

7. RDA is:
   a. Recommended Dietary Allowances
   b. Recommended Daily Allowances
   c. Recommended Diet Allowances
   d. None of the above

8. Vit. E is:
   a. Fat soluble vitamin
   b. Water soluble vitamin
   c. Both of the above
   d. None of the above

9. Calcium is:
   a. Microminerals
   b. Macrominerals
   c. Both of the above
   d. None of the above

10. Zinc is a :
    a. Macrominerals
    b. Microminerals
    c. Both of the above
    d. None of the above

11. _____ helps in the regulation of blood volume and blood pressure.
    a. Sodium
    b. Potassium
    c. Calcium
    d. None of the above

12. Excessive intake of calcium in our diet results in _____.
    a. Diarrhoea
    b. Constipation
    c. Kidney stones
    d. None of the above

13. Which of the following is example of macro minerals?
    a. Sodium
    b. Calcium
    c. Chloride
    d. All of the above

14. Which of the following minerals controls growth and body weight?
    a. Iodine
    b. Calcium
    c. Phosphorous
    d. All of the above

15. Which organ is affected due to the deficiency of serotonin?
    a. brain
    b. Heart
    c. Stomach
    d. Kidney

16. Which of the following act as precursor for the synthesis of melatonin?
    a. Pyruvate
    b. Acetyl-CoA
    c. Serotonin
    d. Lactate

17. When molecules are being built by chemical reaction it is called:
    a. Anabolism
    b. Catabolism
    c. Fermentation
    d. Resperation

18. Blood urea is decreases in all of the following conditions, except
    a. Liver cirrhosis
    b. Pregnancy
    c. Renal failure
    d. Urea

19. Amino acid that involves both gluconeogenesis and ketogenesis-
    a. 4-Hydroxyphenylpyruvate hydroxylase
    b. Homogentisate oxidase
    c. Phenylalanine hydroxylase
    d. Fumarylacetoacetate hydrolase

20. Amino acid that involves both gluconeogenesis and ketogenesis-
    a. Phenylalanine
    b. leucine
    c. Serine
    d. Isoleucine

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(Descriptive)

Time : 2 hrs. 30 min. **Marks : 50**

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

1. Define vitamins and minerals with classification. Give source, metabolism and laboratory test for Vit. D and Vit. B1 **10**

2. Give two examples of sulfur containing amino acids. Write down 5 importance of Methionine. Explain Methionine metabolism cycle **10**

3. Describe the pathway of catabolism of Tyrosine. Elaborate different metabolic disorders associated with catabolism of phenylalanine and tyrosine. **10**

4. Define metabolism and give the relation with amino acid pool. Explain metabolism steps of cysteine. **10**

5. Give end product of catabolism of tryptophan, tyrosine and phenyl alanine **10**

6. Describe Vitamin B complex in detail in reference to source, function, metabolism, any deficiency and laboratory test. **10**

7. Write a note on metabolism on catecholamine , dopamine and serotonine in the human body. **10**

8. What is the difference between macro minerals and micro minerals? Explain the important roles of all macro and micro minerals in our body. **10**

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