Duration: 3 hrs.

Full Marks: 70

BACHELOR OF MEDICAL LABORATORY TECHNOLOGY FOURTH SEMESTER

BIOCHEMISTRY IV BMLT – 403 [SPECIAL REPEAT] [USE OMR SHEET FOR OBJECTIVE PART]

| T | e: 30 min. | ive | Marks: | 2 |
|----|--|------|--|---|
| | | | | - |
| C | hoose the correct answer from t | he | following: 1×20=20 | |
| 1. | Cystine crystals are deposited in many tissue the body. | | | |
| | a. reticuloendothelial system.c. endocrine system. | | respiratory system nervous system | |
| 2. | Phenylalanine and tyrosine are | | | |
| | a. Glucogenic | b. | Ketogenic | |
| | c. Glucogenic and Ketogenic | d. | None of the above | |
| 3. | Tyrosine is the precursor for melanin and o involved in its formation. | nly | one enzyme, namelyis | |
| | a. Hydroxylase | b. | Oxidase | |
| | c. Tyrosinase | d. | Decarboxylase | |
| 4. | What is the scientific name for Vitamin E? | | | |
| | a. Tocopherol | b. | Retinol | |
| | c. Calciferol | d. | Thiamine | |
| 5. | Which fat-soluble vitamin is crucial for bon | e he | palth and calcium absorption? | |
| | a. Vitamin A | | Vitamin D | |
| | c. Vitamin E | | Vitamin K | |
| , | Annonistalis is the | | | |
| 6. | Ammoniotelic is the Aquatic animals dispose of NH3 into the surrounding water. | b. | Ammonia is converted mostly to uric acid | |
| | c. Mammals including man convert NH3 to urea | d. | Waste product of nitrogen metabolism. | |
| 7. | The end product of protein metabolism | | | |
| | a. Uric acid | b. | Urea | |
| | c. Pyruvate | d. | Pyruvic acid | |
| 8. | The liberation of free ammonia from the amoxidation | ino | group of amino acids coupled with | |
| | a. Transamination | b. | Deamination | |
| | c. Oxidative deamination | d. | Non-Oxidative deamination | |

| a. VILA c. Vit E d. Vit D 10. Which vitamin is involved in coagulation? a. Vit B c. Vit E d. Vit C d. Vit K 11. Which fat soluble vitamin is synthesized in the skin upon exposure to sunlight a. Vit B c. Vit D d. Vit K 12. What is the scientific name for vitamin A? a. RETINOL c. RIBOFLAVIN d. NIACIN 13. Vitamin E is known for its role as a. Antioxidant c. Blood-clotting factor d. Pigment synthesizer 14. Which of the following minerals controls growth and body weight? a. Iodine c. Calcium d. All of the above. 15. What is the scientific name of vitamin B-? a. BIOTIN c. RIBOFLAVIN d. NIACIN 16. Cobalt is an integral part of a. Vitamin B1 c. Vitamin B1 d. Vitamin B2 17. Deficiency of cobalt cause a. Pernicious anemia c. Both a and b d. None 18. Which of the following causes candida overgrowth a. Zinc c. Cobalt d. Phosphorus d. Phosphorus d. Night bindness b. O.1% c. 2% d. 0.2% 20. Which of the following is not a disease state of phosphorus a. Night blindness b. Diabetes mellitus d. Thyroidism | 9. | | e not stored in large quantities in the body? | | | | |
|--|-----|--|---|--|--|--|--|
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| a. Night blindness b. Diabetes mellitus | 20 | | | | | | |
| | 20. | | | | | | |
| d. Thyroidism | | | | | | | |
| | | C. MICKEIS | a. Thyroidism | | | | |
| | | | | | | | |

2

USTM/COE/R-01

$\left(\underline{\text{Descriptive}} \right)$

Time: 2 hrs. 30 min. Marks: 50

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

| 1. | Describe the Absorption, transport and storage of vitamin D and its regulation. Write a short note on the deficiency of Vit D and also explain the toxic effects in case of overdose of Vit D. | 6+2+2 =10 |
|----|---|--------------|
| 2. | Describe the metabolism of methionine. Write about Tyrosinemia. | 5+5=10 |
| 3. | Briefly discuss about the Wald's visual cycle. Write a short note on retinoids and xeropthalmia. | 5+5=10 |
| 4. | Describe urea cycle and its associated metabolic disorders. | 1+4+5 =10 |
| 5. | Discuss transamination and its salient features. Explain the metabolism of ammonia. | 10 |
| 6. | Explain about the degradation of HB in details. Write something about Phenylketonuria. | 8+2=10 |
| 7. | Define vitamins. Write the classification of vitamins. Explain the deficiency of vitamin B1/Thiamine. | 5+5=10 |
| 8. | Describe the biochemical functions of Vitamin C. Explain the biochemical functions of Riboflavin with some selected examples of FAD and FMN dependent enzyme along with their respective reactions. | 5+5=10 |

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USTM/COE/R-01