Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – Nov/Dec – 2016**

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|  |  | **Semester :** | **3** |
| **Code :** | **15BT2001** | **Duration :** | **3hrs** |
| **Sub. Name :** | **Medical Biochemistry** | **Max. marks :** | **100** |

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| **Q. No.** | **Questions** | | | | **Course outcome** | | **Marks** |
| **PART-A (40X1=40 MULTIPLE CHOICE QUESTIONS)** | | | | | | | |
| 1. | Which among the following is an aromatic amino acid ? | | | |  |  | |
|  | a. Methionine | b. glycine | c. lysine | d. tyrosine | Co1 | (1) | |
| 2. | Amino acids containing both positive and negative ionic groups known as? | | | |  |  | |
|  | a. anion | b. cation | c. Zwitterion | d. ions | Co1 | (1) | |
| 3. | Pick out the fat soluble vitamin from the list | | | |  |  | |
|  | a. Vitamin A | b.riboflavin | c. vitamin C | d. thiamine | Co1 | (1) | |
| 4. | Identify the compound present in vitamin D | | | |  |  | |
|  | a.calcitriol | b.carotene | c. Glutamic acid | d.glycine | Co1 | (1) | |
| 5. | Amino acids are ampholytes because they can function as ? | | | |  |  | |
|  | a. acid or base | b. polar | c. non polar | d. dipolar | Co1 | (1) | |
| 6. | Find out the globulin from the given list | | | |  |  | |
|  | a. thymine | b. vitelline | c. uracil | d. Ribose | Co1 | (1) | |
| 7. | Which among the following is the albumin present? | | | |  |  | |
|  | a. Chitin | b. ovalbumin (egg) | c. Cellulose | d. uracil | Co1 | (1) | |
| 8. | Identify the compound responsible for dim light vision | | | |  |  | |
|  | a. Heparin | b.rods | c. cones | d. xylose | Co1 | (1) | |
| 9. | The loss of native protein structure is known as? | | | |  |  | |
|  | a. chiral | b. denaturation | c. renaturation | d. spiral | Co1 | (1) | |
| 10. | Pick out the basic unit of genetic information present in the list: | | | |  |  | |
|  | a. DNA | b. RNA | c. Glucose | d.proteins | Co1 | (1) | |
| 11. | Identify the compound responsible for bright light vision | | | |  |  | |
|  | a. Leucine | b. Rods | c.Cones | d.glycine | Co1 | (1) | |
| 12. | Identify the vitamin responsible for collagen formation | | | |  |  | |
|  | a. Vitamin C | b. Vitamin A | c. Vitamin E | d. Vitamin B | Co1 | (1) | |
| 13. | Vitamin responsible for iron metabolism | | | |  |  | |
|  | a. Vitamin C | b. Vitamin A | c. Vitamin E | d. Vitamin B | Co1 | (1) | |
| 14. | Identify the coenzyme present in vitaminB1 | | | |  |  | |
|  | a.flavoprotein | b.Thiamine pyrophospate | c. cytosine | d. adenine | Co1 | (1) | |
| 15. | Which test is involved in identifying the proteins? | | | |  |  | |
|  | a. Lowry | b.DNS | c.Orcinol | d. ninhydrin | Co1 | (1) | |
| 16. | Which among the protein is present in DNA? | | | |  |  | |
|  | a. tyrosine | b. Histone | c. Glycine | d. alanine | Co1 | (1) | |
| 17. | Identify the iminoacid found in protein structure: | | | |  |  | |
|  | a. Hydroxy proline | b. glycine | c. lysine | d. leucine | Co1 | (1) | |
| 18. | The deficiency of vitamin c results in | | | |  |  | |
|  | a. blindness | b. beri beri | c. Scurvy | d. rickets | Co1 | (1) | |
| 19. | Pick up the peptide from the given list: | | | |  |  | |
|  | a. LSH | b.FSH | c. oestrogen | d.oxytocin | Co1 | (1) | |
| 20. | The deficiency caused by vitamin D leads to | | | | Co1 |  | |
|  | a. blindness | b. beri beri | c. Scurvy | d. rickets |  | (1) | |

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| 21. | The major site of cholesterol biosynthesis in humans | | | | Co1 |  |
|  | a. stomach | b. brain | c.kidney | d.liver |  | (1) |
| 22. | The precursor of a component of fatty acyl synthase | | | | Co1 |  |
|  | a. acetyl coA | b. pepsin | c.peptide | d. carnitine |  | (1) |
| 23. | Lipids are formed by a chemical reaction between | | | | Co1 |  |
|  | a. two glycerol | b. one glycerol | c.fat | d. fatty acid |  | (1) |
| 24. | Ketosis is the consequence of increased blood levels of | | | | Co1 |  |
|  | a. HMG coA | b. acetic acid | c.proteins | d. peptides |  | (1) |
| 25. | Which of the following dietary components influences heart disease | | | | Co1 |  |
|  | a.saturated fat | b. unsaturated fat | c. PUFA | d.essential fat |  | (1) |
| 26. | Which sugar is present in gangliosides | | | | Co1 |  |
|  | a. neuraminic acid | b. galactose | c. fat | d. glucose |  | (1) |
| 27. | During prolonged starvation brain oxidizes significant amounts of | | | | Co1 |  |
|  | a. ketone | b. glucose | c. Fat | d. sucrose |  | (1) |
| 28. | Utilization of ketone bodies occur in all the following tissues except | | | | Co1 |  |
|  | a. liver | b. skeletal muscles | c. Renal cortex | d. cardiac muscles |  | (1) |
| 29. | Collagen contains a carbohydrate moiety linked to | | | | Co1 |  |
|  | a. hydroxyl proline | b. serine | c.lysine | d.glycine |  | (1) |
| 30. | An enzyme found in liver and not in skeletal muscles | | | | Co1 |  |
|  | a. hexo kinase | b. glucose 6- phosphatase | c. kinase | d. Phosphatase |  | (1) |
| 31. | Which of the following not required for transketolase | | | | Co1 |  |
|  | a. PP | b. TPP | c. cobalamine | d. Kinase |  | (1) |
| 32. | The mitochondrial membrane are permeable to | | | | Co1 |  |
|  | a. lipids | b. fatty acid | c. Carnitine | d. acyl Co-A |  | (1) |
| 33. | Glycerol containing lipids are synthesized from | | | | Co1 |  |
|  | a. Cephalin | b.Fatty acyl COA | c.cobalamine | d. Phosphatidic acid |  | (1) |
| 34. | Which of the following must be provided in the diet | | | | Co1 |  |
|  | a. Essential fatty acid | b. saturated fat | c. unsaturated fat | d. ghee |  | (1) |
| 35. | Which of the following is a tetrose? | | | | Co1 |  |
|  | a. Methionine | b. erythrose | c. glucose | d. tyrosine |  | (1) |
| 36. | Select the odd one from the following | | | | Co1 |  |
|  | a. Erythrose | b. Peptides | c.Glucose | d. Arabinose |  | (1) |
| 37. | Pick out the fat soluble vitamin which contains beta carotene | | | | Co1 |  |
|  | a. Vitamin A | b.riboflavin | c. vitamin E | d. thiamine |  | (1) |
| 38. | Pick the dietary sources which contains vitamin C | | | | Co1 |  |
|  | a.citrus fruits | b.carotene | c. carrot | d.Brinjal |  | (1) |
| 39. | Creatinine Clearance test is used to detect ---------disorders | | | | Co1 |  |
|  | a. liver | b. kidney | c. gastric | d. lungs |  | (1) |
| 40. | Bilirubin level is detected to find ---------- | | | | Co1 |  |
|  | a. liver | b. stomach | c. jaundice | d.fever |  | (1) |

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| **PART B(8 X 5 = 40 MARKS) (ANSWER ANY EIGHT)** | | | |
| 41. | Draw the diagram of plant cell and animal cell and label its parts | Co1 | (5) |
| 42. | Brief on the functions of various cell organelles | Co1 | (5) |
| 43. | State the reasons for onset on diabetes mellitus | Co1 | (5) |
| 44. | How the level of blood glucose is monitored?Justify by Glucose tolerance test | Co1 | (5) |
| 45. | List the fucntions of cholesterol | Co1 | (5) |
| 46. | Mention the functions of proteins | Co1 | (5) |
| 47. | Write short notes on deficiency diseases of vitamins | Co1 | (5) |
| 48. | What are essential fatty acid.Comment on it | Co1 | (5) |
| 49. | How gastric disorders are diagnosed? | Co1 | (5) |
| 50. | Give an outline on redox potential with examples | Co1 | (5) |
| **PART C( 2 X 10 = 20 MARKS) (ANSWER ANY TWO)** | | | |
| 51. | How ATP is produced by Oxidative phosphorylation? Explain with suitable diagrams | Co1 | (10) |
| 52. | Give a detailed account on classification of carbohydrates | Co1 | (10) |
| 53. | Elaborate on the functions of fat soluble vitamins | Co1 | (10) |

ALL THE BEST