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



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

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

**Supplementary Examination – June – 2017**

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| **Code :** | **14BT2008** | **Duration :** | **3hrs** |
| **Sub. Name :** | **METABOLISM AND BIOENERGETICS** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| Q. No. | Sub Div. | Questions | Course  Outcome | Marks |
| 1. |  | Demonstrate the formation of pyruvate from glucose with suitable reactions. | CO1 | 20 |
| (OR) | | | | |
| 2. |  | Formulate the reactions of pentose phosphate pathway. | CO1 | 20 |
| 3. | a. | Discuss the biosynthesis of Tryptophan. | CO3 | 10 |
|  | b. | Evaluate the fate of leucine in degradation pathway. | CO3 | 10 |
| (OR) | | | | |
| 4. | a. | How Tyrosine is produced? – Explain. | CO2 | 10 |
|  | b. | List any 4 inborn errors of amino acid metabolism. | CO2 | 10 |
| 5. |  | Summarize the reactions for pyrimidine biosynthesis. | CO3 | 20 |
| (OR) | | | | |
| 6. | a. | Outline the reactions of purine degradation. | CO2 | 10 |
|  | b. | Define the following i) Gout ii) Hyperuricemia. | CO3 | 10 |
| 7. |  | Give your opinion on formation of ATP in mitochondria by oxidative phosphorylation. | CO3 | 20 |
| (OR) | | | | |
| 8. | a. | Classify bioenergetics and redox biochemistry. | CO2 | 10 |
|  | b. | State the importance of respiratory chain. | CO3 | 10 |
|  | | **Compulsory:** |  |  |
| 9. |  | Compile the reactions for biosynthesis and oxidation of fatty acids. | CO2 | 20 |

ALL THE BEST