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



**End Semester Examination – Nov / Dec – 2019**

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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. |  | How pyruvate is formed during aerobic conditions? Justify with suitable reactions. | CO1 | 20 |
| **(OR)** | | | | |
| 2. |  | Illustrate the reactions of Pentose Phosphate pathway. | CO1 | 20 |
| 3. |  | Describe the anabolic reactions of aromatic amino acids. | CO1 | 20 |
| **(OR)** | | | | |
| 4. |  | Elaborate on the urea cycle. | CO2 | 20 |
|  |  |  |  |  |
| 5. |  | How cholesterol is biosynthesized in our body? Explain in detail. | CO2 | 20 |
| **(OR)** | | | | |
| 6. |  | Sketch the anabolic and catabolic reactions of fatty acid. | CO1 | 20 |
|  |  |  |  |  |
| 7. |  | Classify the various inborn errors of nucleotide metabolism and lipid metabolism. | CO1 | 20 |
| **(OR)** | | | | |
| 8. |  | Describe the catabolism of purines and pyrimidines. | CO2 | 20 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Comment on respiratory chain. | CO2 | 10 |
| b. | How ATP is produced by oxidative phosphorylation? | CO1 | 10 |