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 :** | **14BT3001** | **Duration :** | **3hrs** |
| **Sub. Name :** | **APPLIED BIOCHEMISTRY** | **Max. marks :** | **100** |

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

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| Q. No. | Sub Div. | Questions | Course  Outcome | Marks |
| 1. |  | Define glycoproteins. Discuss the structure and functions of the N and O linked glycans. | CO 1 | 20 |
| (OR) | | | | |
| 2. |  | Expain the significance of glycoconjugates with sutable examples. | CO 1 | 20 |
| 3. |  | Elaborate on the role of glycans in biotechnology and pharmaceutical industries. | CO 1 | 20 |
| (OR) | | | | |
| 4. | a. | What are lectins? How do they mediate cell to cell recognition and adhesion? | CO 1 | 16 |
|  | b. | How do *Hemophilus influenza* and *Helicobacter pylori* engage the host cell surface to initiate infection? | CO 1 | 4 |
| 5. |  | Explain how the structure of Myoglobin and Hemoglobin help in oxygen binding and diffusion | CO 2 | 20 |
| (OR) | | | | |
| 6. |  | Highlight the structural features of actin and myosin. | CO 2 | 20 |
| 7. |  | With specific examples, illustrate the mechanism of actions of steroid hormones that bind intracellular receptors. | CO 2 | 20 |
| (OR) | | | | |
| 8. |  | Define oxidative stress. Potentiate the role of mitochondria in oxidative stress. Add a note on biological consequences. | CO 2 | 20 |
|  | | **Compulsory:** |  |  |
| 9. |  | Explain enzymatic and non enzymaticl antioxidants in defensive action against oxidative damage and improve health. | CO 2 | 20 |

ALL THE BEST