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 :** | **2016-17 ODD** |
| **Code :** | **Microbiology** | **Duration :** | **3hrs** |
| **Sub. Name :** | **14BT2005** | **Max. marks :** | **100** |

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

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | What is binomial nomenclature? Discuss in detail about the classification of microorganisms. | CO1 | **20** |
| **(OR)** | | | | |
| 2. | a. | What is refractive index? State the working principle of dark field microscope in detail. | CO1 | **10** |
| b. | With a neat diagram, describe in detail the working principle of fluorescent microscope and mention its advantages and disadvantages. | CO1 | **10** |
| 3. |  | Define media? Discuss in detail about the nutritional requirements for the growth of bacteria. | CO1 | **20** |
| **(OR)** | | | | |
| 4. |  | With a neat flow chart, explain the principle and procedure for Gram staining and Acid fast staining. | CO1 | **20** |
| 5. |  | Give a detailed account on lytic and lysogeny cycle of bacteriophages. | CO1 | **20** |
| **(OR)** | | | | |
| 6. |  | What are actinomycetes? Discuss the structure, replication and importance in detail. | CO1 | **20** |
| 7. |  | Enumerate the physical methods used to control the growth of microorganisms. | CO1 | **20** |
| **(OR)** | | | | |
| 8. |  | With a neat diagrammatic representation, describe the biogas production and its uses in detail. | CO1 | **20** |
|  | | **Compulsory:** |  |  |
| 9. | a. | What is biofertilizer? Give a short note on Rhizobial fertilizer. | CO1 | **10** |
|  | b. | Briefly discuss the production of cyanobacterial fertilizer. | CO1 | **10** |

ALL THE BEST