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 – 2017**

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| --- | --- | --- | --- |
| **Code :** | **15BT3024** | **Duration :** | **3hrs** |
| **Sub. Name :** | **MICROBIAL NANOTECHNOLOGY** | **Max. Marks :** | **100** |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Summarize the Application of various Nanodevices and their role in Nanomedicine with a special mention about “Nanobots”. | CO1 | 20 |
| (OR) | | | | |
| 2. | a. | Analyze the Role of various scientists in the manufacturing processes of Nanoparticles. | CO1 | 10 |
| b. | Elaborate the History and Evolution of Nanotechnology. | 10 |
|  |  |  |  |  |
| 3. |  | Discuss in the various tools used in the Characterization of Nanoparticles. | CO2 | 20 |
| (OR) | | | | |
| 4. |  | Based on the Research Paper, “Biosynthesis of Nanoparticles by Microorganisms and their Applications” studied by you evaluate methods for *Microbial Synthesis of Nanoparticles*. | CO2 | 20 |
|  |  |  |  |  |
| 5. |  | Discuss in detail the Diversity of Nanosystems with examples. | CO2 | 20 |
| (OR) | | | | |
| 6. |  | Elaborate the Concept of Cancer treatment and DNA Origami with respect to Nano-Ethics. | CO3 | 20 |
|  |  |  |  |  |
| 7. |  | Infer the various Societal Implications of Nanoscience and Nanotechnology incurred in the Environment. | CO3 | 20 |
| (OR) | | | | |
| 8. |  | Based on the Research Paper, “Nanotechnology in Food Science: Functionality, Applicability, and Safety Assessment**”** studied by you, discuss the following Questions? | CO1 |  |
|  | i. Protection against biological deterioration using Antimicrobials | 10 |
|  | ii. Increasing Bioavailability. | 10 |
|  |  |  |  |  |
|  | | **Compulsory:** |  |  |
| 9. |  | Based on the Research Paper, “Review on Nano-drugs” studied by you evaluate the *Synthesis of Nano-drugs with respect to Metal Nanoparticles.* | CO3 | 20 |

ALL THE BEST