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 – April/May – 2017**

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| --- | --- | --- | --- |
| **Code :** | **15BT2009** | **Duration :** | **3hrs** |
| **Sub. Name :** | **TECHNIQUES IN PATHOLOGY AND MICROBIOLOGY** | **Max. Marks:** | **100** |

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

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| Q. No. | Sub Div. | Questions | Course  Outcome | | Marks |
| 1. | a. | Summarize the processes by which Bacteria reproduce with neat labelled diagrams. | | CO1 | 12 |
| b. | Infer the process and reason behind the Endospore formation. | | CO1 | 8 |
| (OR) | | | | | |
| 2. |  | Elaborate the events of Embolism and Infarction with suitable examples. | | CO1 | 20 |
|  |  |  | |  |  |
| 3. |  | Explain the Working Principle, Sample preparation and Application of Transmission Electron Microscope with a neat labelled diagram. | | CO2 | 20 |
| (OR) | | | | | |
| 4. |  | Discuss the Working Principle and Application of a Microscope that uses emitting Fluorescent Light as a Source for viewing an object. | | CO2 | 20 |
|  |  |  | |  |  |
| 5. |  | Analyze the efficacy of the various Immunoelectrophoresis Techniques that are used for separation and Characterization of Proteins and reaction with Antibodies. | | CO3 | 20 |
| (OR) | | | | | |
| 6. |  | List the Characteristic features and Diagnosis of different diseases caused by Bacteria, Fungi, Protozoa, Helminthes and Viruses. | | CO3 | 20 |
|  |  |  | |  |  |
| 7. |  | Summarize the various types of Media that are used for the growth of Microorganisms. | | CO1 | 20 |
| (OR) | | | | | |
| 8. | a. | Discuss the various types of Light microscopes that are available for scientific use. | | CO2 | 10 |
|  | b. | Show the Concept of Lenses and the Bending of Light using an illustration. | | CO2 | 10 |
|  | | **Compulsory:** | |  |  |
| 9. | a. | Discuss the Immunodiffusion techniques that are used for the detection of Antigen in a sample or quantification of Antigens and Antibodies. | | CO3 | 12 |
|  | b. | Show the method of Monoclonal Antibody production with a diagram. | | CO3 | 8 |

**ALL THE BEST**