

EXAMINATION-2022
PAPER NAME: CELLULAR MICROBIOLOGY
PAPER CODE: MMB E303

Time: 3 hour

Max. Marks: 70
Min. Pass: 40%

Note: Question Paper is divided into two sections: **A and B**. Attempt both the sections as per given instructions.

SECTION-A (SHORT ANSWER TYPE QUESTIONS)

Instructions: Answer any five questions in about 150 words each. Each question carries six marks. (5 X 6 = 30 Marks)

- Question-1: Write a short note on idiopathic disease with suitable examples.
- Question-2: Describe briefly the role of pheromone in cell signaling.
- Question-3: Describe the organization & structural stability of microtubules.
- Question-4: Write short note on pathogenicity islands.
- Question-5: Briefly describe the difference between prokaryotic and eukaryotic cells.
- Question-6: Give a brief account on exocytosis and endocytosis.
- Question-7: Give a brief account on bacterial adherence mechanism.
- Question-8: Write short note on genomic expression.
- Question-9: Write a short note on apoptosis.
- Question-10: Give a brief account on RTX toxins.

SECTION-B (LONG ANSWER TYPE QUESTIONS)

Instructions: Answer any FOUR questions in detail. Each question carries 10 marks. (4 X 10 = 40 Marks)

- Question-1: Give a details account on different stages of cell cycle with diagram.
- Question-2: Describe the different type of Symbiotic Relationships including mutualism, commensalism and parasitism.
- Question-3: Write a details account on outcome of activation of signaling pathways.
- Question-4: Give a detail account on quorum sensing.
- Question-5: Define cell signaling? Give a detail account on cell to cell signaling with reference to endocrine and cytokines.
- Question-6: Give a details account on bacterial invasion of host cells, its mechanism and consequence of invasion, survival and growth after invasion.
- Question-7: Give a detail account on classification of bacterial toxin on the basis of activities.
- Question-8: Write a detail account on application of cellular microbiology to the generation of novel therapeutics.