

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY
[AHS 0321] **MARCH 2021** **Sub. Code: 2911**
(AUGUST 2020 EXAM SESSION)
B.Sc. MICROBIOLOGY
SECOND YEAR (Regulation 2018-2019)
PAPER I – CELL BIOLOGY AND MOLECULAR BIOLOGY
Q.P. Code : 802911

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(3 x 10 = 30)**

1. Define cell cycle. Describe various phases of cell cycle, Add a note on significance of mitotic cell division.
2. Describe DNA replication in prokaryotes.
3. Write in detail about Bacterial Transformation

II. Write notes on: **(8 x 5 = 40)**

1. Generalized Transduction
2. Fluid Mosaic model of plasma membrane.
3. Post transcriptional modifications.
4. G-Protein signal transduction.
5. Describe the structure and function of actin filament.
6. Transposable elements.
7. Attenuation control.
8. Describe different types of intercellular junctions and mention its function.

III. Short answers on: **(10 x 3 = 30)**

1. F' conjugation.
2. Okazaki fragment
3. Define intron
4. Difference between B-DNA and Z-DNA
5. Desmosome
6. What are cristae?
7. Pericentriolar satellite.
8. Name the different types of cytoskeleton.
9. Define genetic code.
10. Phagocytosis
