

DEPARTMENT OF PHYSICS



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Date

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Assignment-MICPHY04

Subject: **Physics**

Name of the Course: - **ELECTRICITY AND MAGNETISM**

Course Code: **MICPHY04**

Semester: **Semester-IV**, Session: **2024-2028**

Answer all questions.

Q.1

Derive an expression for the resonance frequency and quality factor of a series LCR circuit.

Q.2

Explain Ampere's law in magnetized material and find the expression for **H** inside and outside of a long copper rod of radius **R** carrying a uniformly distributed (free) current **I**.