

# 2nd Quarter Final Exam Topics

January, 2022

## Topics and Expected Number of Questions

### Unit 1

Total number of questions expected: 5 to 6

#### Topics :

- Acceleration due to gravity
- Gravitational potential energy
- Moment of inertia
- Rotational Dynamics

### Unit 2

Total number of questions expected:  $\sim 20$

#### Topics :

- Charges, Properties of Charges, Coulomb's Law & Superposition Principle
- Electrostatic Force & Field
- Electric potential energy, potential & potential difference
- Capacitors, capacitance(&factors affecting it) energy in capacitors and combination of capacitors
- RC circuits

### Unit 3

Total number of questions expected:  $\sim 8$

#### Topics :

- Current & drift speed
- Conductors, insulators, resistivity and conductivity
- Microscopic & Macroscopic forms of Ohm's Law.
- Electric energy, power, units of energy & power
- Resistors, resistance((&factors affecting it)) combination of resistors, power due to resistors
- Internal resistance