

## Physics (G.E.GEN)

Answer any four question:-

- Q1. Discuss Fourier's theorem
- Q2. Define :- a) Half-period zone  
b) Plane polarized light
- Q3. Derivation Double slit.
- Q4. Discuss Sabine's formula.
- Q5. What is Phase velocity?

UG<sub>2</sub>- Sem-IV Exam- 22 (21-24)

Physics (core-VIII)

Answer four question:-

1. State and prove De-Moivre's theorem.
2. Prove Cauchy Integral formula.
3. State and prove Fourier Integral theorem.
4. Prove Cauchy-Riemann conditions for analytic function.

Physics (core-IX)

Answer four question:-

1. Discuss Schrodinger time independent wave equation.
2. Derive its expression of Compton effect?
3. Explain Heisenberg's uncertainty principle?
4. Experimental demonstration of matter waves?

Physics (core-X)

- Q1. State and prove De-Morgan's theorem.
- Q2. Discuss the theory of Half-adder & full adder.
- Q3. How does AND gate realised using diode and transistor.
- Q4. Why NAND gate is known as universal gate?

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