DSE-3. Classical dynamics

* Answer any three question:-

Q1. Derive Hamilton's principle?

Q2. Discuss canonical transformations?

Q3. What is Lorentz transformations?

Q4. What is Time-dilation and length contraction?

DSE-4. ~~Communication system~~ (Nuclear & Particle Physics)

Answer any three question.

Q1 Derive electromagnetic communication spectrum?

Q2. What is Binding energy?

Q3. Discuss Geiger-Nuttal law?

Q4. Write a short notes on Rutherford's experiments of nuclear transmutions?

6 Monday July

Physics

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Core-13. Electromagnetic theory

* Answer any four question:

Q1. Derivation of Maxwell's field equation?

Q2. Discuss Brewster's law?

Q3. Write a short notes on Biot's Laws for Rotatory polarization?

Q4. Discuss Experimental verification of Fresnel's theory?

Q5. Define displacement current and Quarter wave?

Core-14. Statistical mechanics

* Answer any four question:

Q1. Discuss Boltzmann entropy?

Q2. Derivation Bose-Einstein distribution law

Q3. Write a short notes on Fermi-dirac distribution law?

Q4. Discuss Planck's law of blackbody radiation?

Q5. What is classical entropy?