

D&E-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?

D&E-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 transmutations?

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Monday
July

Physics

Semester - VI

107-178 • WK 28

16	1	11	1	1	1	1
17	2	12	2	2	2	2
18	3	13	3	3	3	3
19	4	14	4	4	4	4
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31	16	26	16	16	16	16
1	17	27	17	17	17	17
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3	19	29	19	19	19	19
4	20	30	20	20	20	20
5	21	31	21	21	21	21

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?