



## PHYSICS C-E & M COURSE- SESSION PLAN

LESSON NO	TOPICS
LESSON 1	Discussion of the structure of the test and test taking strategies. Discussion of Diagnostic test and scopes of improvement. Fundamentals of Calculus
LESSON 2	Session 1: Electrostatics Coulomb's Law, Electric field and electric potential, Electric potential due to point charges and uniform fields
LESSON 3	Unit 1: Gauss's Law, Fields and potentials of other charge distributions+Discussion of Homeworks
LESSON 4	UNIT 2: Conductors, Capacitors, Dielectric-Electrostatics with conductors, Capacitors, Dielectrics+Discussion of Homeworks
LESSON 5	UNIT 3: Electric Circuits-Current and resistance, Current, resistance, and power+Discussion of Homeworks
LESSON 6	Unit 3: Steady-state direct-current circuits with batteries and resistors only, Gauss's Law+Discussion of Homeworks
LESSON 7	UNIT 4: Magnetic Fields-Forces on moving charges in magnetic fields, Forces on current carrying wires in magnetic fields Fields of long current carrying wires, The Biot-Savart Law and Ampère's Law+Discussion of Homeworks
LESSON 8	UNIT 5: Electromagnetism-Electromagnetic induction (including Faraday's Law and Lenz's Law)
LESSON 9	Unit 5: Inductance (including LR circuits), Maxwell's equations and FRQs writing style+Discussion of Homeworks
LESSON 10	MOCK TEST 1
LESSON 11	MOCK TEST 1-REVIEW
LESSON 12	MOCK TEST 2
LESSON 13	MOCK TEST 2-REVIEW
LESSON 14	MOCK TEST 3
LESSON 15	MOCK TEST 3-REVIEW
LESSON 16	MOCK TEST 4
LESSON 17	MOCK TEST 4-REVIEW
LESSON 18	PRACTICE TESTS 50 HOURS OF PRACTICE AFTER THE PREPARATION