

BUNDELKHAND INSTITUTE OF ENGINEERING & TECHNOLOGY, JHANSI
CLASS TEST-2 (KEE-201T)
BASIC ELECTRICAL ENGINEERING (EE+EC)

M.M- 10

M.T- 1 Hr.

Attempt any **FOUR** questions, each carry equal marks

4*2.5

1. A three phase delta connected load consist of each phase impedance of $Z_p = 40 \angle 30^\circ \Omega$. The line voltage is 400V at 50Hz. Determine
 - a. Power factor
 - b. phase and line current
 - c. power consumed by each phase impedance
2. Explain working principle of single phase transformer and also derive E.M.F equation of it.
3. A transformer with 800 primary turns and 200 secondary turns is supplied from a 100V a.c supply. Calculate the secondary voltage. And explain the characteristics of ideal transformer.
4. Draw the phasor diagram of three phase star connected balance load and derive the relation between current and voltage.
5. Draw and Explain the resonance occur in parallel RLC circuit with the help of diagram.

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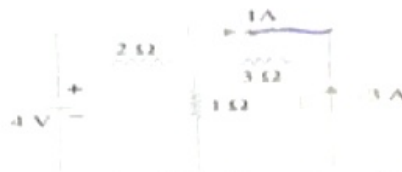
Bundelkhand Institute of Engineering & Technology Jhansi
Class Test -1
Electrical Engineering (KEE-101 T) Branch (EC)

MM: - 15

Time: - 1 hrs

Note: Attempt any three questions each carry equal marks:

1. Define with examples: CO1
 - (a) active and passive network
 - (b) unilateral and bilateral network
 - (c) linear and nonlinear network
 - (d) lumped and distributed network
2. Find current through 1 ohm resistor using superposition theorem and thevenins theorem. CO1



3. using nodal analysis find the current in all the branches of the network given below. CO1



4. Derive the expression for delta to star and star to delta conversion. CO1