KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

ELECTRICAL ENGINEERING DEPARTMENT

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EE-360 (151)

Key Solution

Quize # 2 Sec. Serial # Name: I.D.#

Circle the correct answer.

1) A 19.2 kVA, 4800/240 V, transformer has an equivalent impedance referred to the primary side (high voltage side) as $Z_{eqp} = 30 + j40\Omega$. If the secondary side of the transformer supplies a resistive load at rated current, the voltage regulation will be (4 Marks)

a. 4.1 %.

b. 2.55 %.

c. 0 %.

d. None of above.

2) A 10 kVA, 480/120 V transformer is connected as a step-down autotransformer feeding a load at 480 V. The amount of kVA transferred as an autotransformer is (3 Marks)

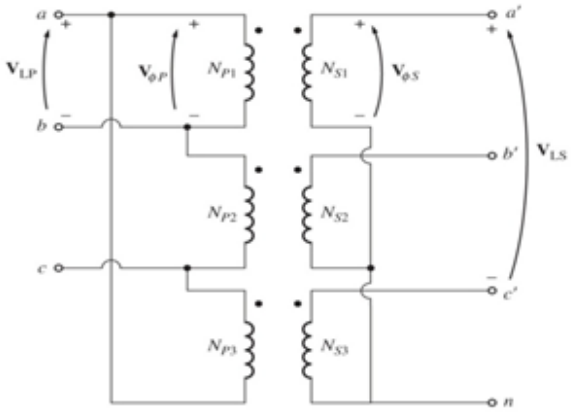
a. 10

b. 40

c. 50

d. None of above.

3) The ratings of the 3-phase transformer shown below are 69 kV (on primary) / 4.16 kV (on secondary), 1000 kVA. (3 Marks)



The rated phase voltage on the primary side is (…..) kV, and the rated phase voltage on the secondary side is (…..) kV

a. 69 ; 4.16

b. 69 ; 2.4

c. 39.84 ; 4.16

d. 39.84 ; 2.4