

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

ELECTRICAL ENGINEERING DEPARTMENT

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EE-465

Key Solutions

Quiz # 5 Serial #

Name:

I.D.#

Circle the correct answer.

- 1) The ac resistance of a 13.8 kV, 3-phase cable, with two-level of sheathing and one-level of armouring, is function of its

- a. **skin-effect, proximity, induced voltages, hysteresis loss and eddy-current loss.**
- b. skin-effect, flow of eddy-current, and armouring-effect.
- c. skin-effect, proximity, flow of eddy-current and sheath-effect.
- d. skin-effect, sheath-effect, and armouring-effect.

(3 Marks)

- 2) The insulation breakdown in cables occur due to one or more of the following factors

- a. insufficient thickness of insulation, long period of service, type of conductors.
- b. insufficient thickness of insulation, long duration of transient voltages, type of insulation.
- c. **insufficient thickness of insulation, long period of service, faulty manufacture.**
- d. long duration of transient voltages, long period of service, voltage level.

(4 Marks)

- 3) Heat dissipation in cables is produced due to

- a. ohmic loss in the cores.
- b. eddy-current loss in the sheaths and armouring.
- c. dielectric loss in the insulation.
- d. **all above.**

(3 Marks)