KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

ELECTRICAL ENGINEERING DEPARTMENT

Dr. Ibrahim Omar Habiballah

EE-306

Key Solutions

Quiz 1   Sec.: 2   I.D.:   Name:

Q.1 Three identical impedances of $4 + j3$ Ohm are delta-connected and tied to a three-phase 208-V power line. The phase and line currents absorbed by the load are

a. $I_{ph} = 41.6 \angle - 36.87^o$ A   ; $I_{Line} = 72.05 \angle - 66.87^o$ A

b. $I_{ph} = 24.02 \angle - 36.87^o$ A   ; $I_{Line} = 24.02 \angle - 36.87^o$ A

c. $I_{ph} = 41.6 \angle - 36.87^o$ A   ; $I_{Line} = 72.05 \angle - 6.87^o$ A

d. $I_{ph} = 24.06 \angle - 36.87^o$ A   ; $I_{Line} = 41.6 \angle - 6.87^o$ A

Q.2 Three identical impedances of $4 + j3$ Ohm are Y-connected and tied to a three-phase 208-V power line. The phase and line currents absorbed by the load are

a. $I_{ph} = 41.6 \angle - 36.87^o$ A   ; $I_{Line} = 72.05 \angle - 66.87^o$ A

b. $I_{ph} = 24.02 \angle - 36.87^o$ A   ; $I_{Line} = 24.02 \angle - 36.87^o$ A

c. $I_{ph} = 41.6 \angle - 36.87^o$ A   ; $I_{Line} = 72.05 \angle - 6.87^o$ A

d. $I_{ph} = 24.06 \angle - 36.87^o$ A   ; $I_{Line} = 41.6 \angle - 6.87^o$ A