KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

ELECTRICAL ENGINEERING DEPARTMENT

Dr. Ibrahim Omar Habiballah

EE-306 (141)

Key Solutions

Quiz 1   Sec.: 3   Serial: I.D.:   Name:

Q.1 Three-phase 230-V source is connected to a delta-connected load. The per-phase impedance of the load is $3 + j4$ Ohm. The phase and line currents of the load are

   a. $\mathbf{I_{ph} = 46.0 \angle - 23.13^o \ A}$; $\mathbf{I_{Line} = 79.7 \angle - 53.13^o \ A}$

   b. $I_{ph} = 46.0 \angle - 23.13^o \ A$; $I_{Line} = 46.0 \angle - 23.13^o \ A$

   c. $I_{ph} = 79.7 \angle - 53.13^o \ A$; $I_{Line} = 79.7 \angle - 53.13^o \ A$

   d. $I_{ph} = 46.0 \angle - 53.13^o \ A$; $I_{Line} = 79.7 \angle - 83.13^o \ A$

Q.2 Three-phase 230-V source is connected to a delta-connected load. The per-phase impedance of the load is $3 + j4$ Ohm. The phase and line voltages of the load are

   a. $V_{ph} = 132.7 \angle 0^o \ V$; $V_{Line} = 230 \angle 30^o \ V$

   b. $V_{ph} = 132.7 \angle 0^o \ V$; $V_{Line} = 132.7 \angle 0^o \ V$

   c. $\mathbf{V_{ph} = 230 \angle 30^o \ V}$; $\mathbf{V_{Line} = 230 \angle 30^o \ V}$

   d.   none of the above