

**KING FAHD UNIVERSITY OF PETROLEUM & MINERALS**  
**ELECTRICAL ENGINEERING DEPARTMENT**

**Dr. Ibrahim O. Habiballah**  
**EE-360**

**Key Solution**

Quiz # 5    Serial #

Name:

I.D.#

Circle the correct answer.

1) Two synchronous generators are to run in parallel. The first one has four-poles and runs at a speed of 1500 rpm. If the second one has six-poles, the speed at which it should run is

- a. 1500 rpm.
- b. 1200 rpm.
- c. 1000 rpm.**
- d. 900 rpm.

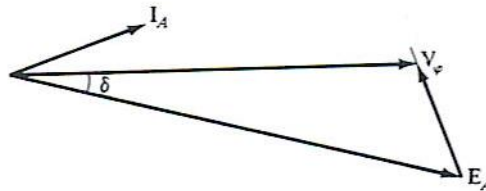
(3 Marks)

2) Two synchronous generators are to run in parallel. The first one has two-poles and runs at a synchronous speed of 3000 rpm. If the second one has six-poles, the speed at which it should run is:

- a. 1000 rpm**
- b. 1200 rpm
- c. 3600 rpm
- d. 3000 rpm

(3 Marks)

3) The phasor diagram shown below is for



- a. an under-excited synchronous generator.
- b. an under-excited synchronous motor.
- c. an over-excited synchronous generator.
- d. an over-excited synchronous motor.**

(2 Marks)

4) The V-curves of a synchronous motor shows relation between

- a. excitation current and back EMF.
- b. armature current and supply voltage.
- c. excitation current and armature current.**
- d. load current and terminal voltage.

(2 Marks)