



**Digital Library**

***Electrical and Electronics Engineering***  
[www.electricalandelectronicsengineering.com](http://www.electricalandelectronicsengineering.com)



**Induction Motor MCQs**

MCQ #

1

The correct statement about field current in induction motor is:

- a No DC field current is required for excitation
- b A DC field current is always required for excitation purposes
- c Two DC field currents are required
- d None of above



**To learn more about Electrical and Electronics Engineering:**  
[www.electricalandelectronicsengineering.com](http://www.electricalandelectronicsengineering.com)

MCQ # 2

The synchronous speed of a 4 pole induction moto operating at 60 Hz system is:

a 2400 r/min

b 1800 r/min

c 3600 r/min

d 8 r/min

Explanation

$$\text{Synchronous speed} = \frac{120 * f}{P} = \frac{120 * 60}{4} = 1800 \text{ r/min}$$



To learn more about Electrical and Electronics Engineering:  
[www.electricalandelectronicsengineering.com](http://www.electricalandelectronicsengineering.com)

MCQ # 3

The slip of induction motor at no load is:

a Very high

b Very small

c Zero

d None of above

*At no load the relative speed between rotor and magnetic fields is very small and thus the slip is very small*



**To learn more about Electrical and Electronics Engineering:**  
[www.electricalandelectronicsengineering.com](http://www.electricalandelectronicsengineering.com)

MCQ # 4

The efficiency of induction motor is at high slips is:

- a Excellent
- b Same as it is at low slips
- c Very poor
- d Better than it is at low slips

*At high slips the efficiency of motor is very poor*



**To learn more about Electrical and Electronics Engineering:**  
[www.electricalandelectronicsengineering.com](http://www.electricalandelectronicsengineering.com)

MCQ # 5

Major reason for using starter with induction motors:

- a Provide high torque
- b Reduce speed of motor
- c Reduce starting current
- d To reverse direction of current

*The starting current of motor can be five to ten times high if started without a starter*



**To learn more about Electrical and Electronics Engineering:**  
[www.electricalandelectronicsengineering.com](http://www.electricalandelectronicsengineering.com)



MCQ #

6

Type of induction motor in which extra resistance can be inserted into the rotor circuit

a Wound rotor induction motor

b Squirrel cage induction motor

c Both of these

d None of these



**To learn more about Electrical and Electronics Engineering:**  
[www.electricalandelectronicsengineering.com](http://www.electricalandelectronicsengineering.com)

MCQ #

7

Which one of the following is cheaper in terms of cost:

a Wound rotor induction motor

b Squirrel cage induction motor

c Both of these

d None of these

*Wound rotor induction motors are more expensive since they require a lot of maintenance, and have wear and tear associated with their brushes and slip rings*



**To learn more about Electrical and Electronics Engineering:**  
[www.electricalandelectronicsengineering.com](http://www.electricalandelectronicsengineering.com)



MCQ # 8

The test of induction motor in which the slip  $s = 1$ :

- a No load test
- b Stator resistance test
- c Locked rotor test
- d None of these

*In locked rotor test, the rotor is blocked so that it can't move. Since slip defines the relative speed between synchronous speed and rotor shaft speed, the slip at that instant is maximum (1)*



**To learn more about Electrical and Electronics Engineering:**  
[www.electricalandelectronicsengineering.com](http://www.electricalandelectronicsengineering.com)

MCQ # 9

The amount of slip during No Load test of induction motor is approximately:

a 0.001

b 0.5

c 0.8

d 1

*During no load test the only load on a motor is friction and windage losses. The converted power in motor is consumed by mechanical losses and thus the slip of motor is very small.*



**To learn more about Electrical and Electronics Engineering:**

**[www.electricalandelectronicsengineering.com](http://www.electricalandelectronicsengineering.com)**

MCQ # 10

Starting torque in Squirrel cage induction motor is:

- a Zero
- b Small
- c High
- d Very high

*The starting torque of squirrel cage induction motor is very small*



**To learn more about Electrical and Electronics Engineering:**  
[www.electricalandelectronicsengineering.com](http://www.electricalandelectronicsengineering.com)