# 37 Lecture - PHY301

# **Important Mcqs**

### What is the rectification factor for a full wave bridge rectifier?

a) 0.5

b) 0.637

c) 0.812

d) 1

Answer: c) 0.812

#### How many diodes are used in a full wave bridge rectifier?

a) 1

b) 2

- c) 3
- d) 4

Answer: d) 4

#### What is the advantage of a full wave bridge rectifier over a half wave rectifier?

- a) It requires fewer diodes
- b) It provides a higher DC voltage output
- c) It is less complex
- d) It is more efficient

## Answer: b) It provides a higher DC voltage output

#### What is the purpose of the smoothing capacitor in a full wave bridge rectifier?

- a) To reduce the ripple in the DC output
- b) To increase the voltage of the AC input

- c) To convert AC voltage to DC voltage
- d) To provide a constant voltage output

#### Answer: a) To reduce the ripple in the DC output

#### What is the efficiency of a full wave bridge rectifier?

- a) 25%
- b) 50%
- c) 75%
- d) 81.2%

Answer: d) 81.2%

#### What is the RMS voltage of the AC input in a full wave bridge rectifier?

- a) Peak voltage
- b) Peak-to-peak voltage
- c) Zero voltage
- d) Peak voltage divided by the square root of 2

#### Answer: d) Peak voltage divided by the square root of 2

#### Which configuration of diodes is used in a full wave bridge rectifier?

- a) Center-tap
- b) Half wave
- c) Full wave
- d) Bridge

#### Answer: d) Bridge

#### What is the output voltage of a full wave bridge rectifier with an input voltage of 12V RMS?

- a) 6.12V DC
- b) 7.32V DC
- c) 9.75V DC

#### d) 12V DC

### Answer: c) 9.75V DC (calculated as 12V RMS x 0.812)

#### What is the disadvantage of a full wave bridge rectifier?

- a) It is less efficient than a half wave rectifier
- b) It requires more diodes than a half wave rectifier
- c) It produces a lower DC output voltage than a half wave rectifier
- d) It is more complex than a half wave rectifier

#### Answer: b) It requires more diodes than a half wave rectifier

## What is the rectification efficiency of a full wave bridge rectifier?

a) 50%

b) 75%

c) 81.2%

d) 100%

Answer: c) 81.2%