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%