# 39 Lecture - PHY301

## **Important Mcqs**

What is the output voltage of a Cockcroft-Walton multiplier circuit with four stages?
A) Vin
B) 2Vin
C) 3Vin
D) 4Vin
Answer: C) 3Vin
What is the main application of voltage multipliers?
A) Voltage amplification
B) Voltage stabilization
C) Voltage conversion
D) Voltage inversion
Answer: C) Voltage conversion
Which type of voltage multiplier circuit is most efficient?
A) Half-wave multiplier
B) Full-wave multiplier
C) Voltage doubler
D) Voltage tripler
Answer: B) Full-wave multiplier

#### What is the function of the capacitors in a voltage multiplier circuit?

- A) To filter the output voltage
- B) To increase the output current

C) To store and release energy
D) To regulate the output voltage
Answer: C) To store and release energy
How many diodes are used in a voltage doubler circuit?
A) 1
B) 2
C) 3
D) 4
Answer: B) 2
What is the output voltage of a voltage tripler circuit with a peak input voltage of 10V?
A) 10V
B) 20V
C) 30V
D) 40V
Answer: C) 30V
Which type of voltage multiplier circuit is used in CRT (Cathode Ray Tube) displays?
A) Voltage doubler
B) Voltage tripler
C) Voltage quadrupler
D) Voltage quintupler
Answer: C) Voltage quadrupler
What is the maximum output voltage of a voltage quadrupler circuit with a peak input voltage of 12V?
A) 24V
B) 36V
C) 48V

D) 60V

#### Answer: C) 48V

### What is the main disadvantage of voltage multipliers?

- A) High cost
- B) Low efficiency
- C) Limited output voltage range
- D) Complex circuit design

Answer: B) Low efficiency

#### How many stages are typically used in a voltage multiplier circuit?

- A) 1-2 stages
- B) 3-4 stages
- C) 5-6 stages
- D) 7-8 stages

Answer: B) 3-4 stages