

39 Lecture - PHY301

Important Mcqs

What is the output voltage of a Cockcroft-Walton multiplier circuit with four stages?

- A) V_{in}
- B) $2V_{in}$
- C) $3V_{in}$
- D) $4V_{in}$

Answer: C) $3V_{in}$

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