MCQs on Capacitance/Capacitor

1. What is the symbol for capacitance?

- a) V
- b) R
- c) C
- d) F

2. What is the unit of capacitance?

- a) Volt
- b) Ohm
- c) Coulomb
- d) Farad

3. Which of the following materials can be used as a dielectric in capacitors?

- a) Metal
- b) Ceramic
- c) Water
- d) Plastic
- e) ceramic and plastic

4. How does increasing the area of the plates in a capacitor affect its capacitance?

- a) Increases capacitance
- b) Decreases capacitance
- c) No effect
- d) Changes the resistance

5. What happens to the current in a circuit when a capacitor is fully charged in a DC circuit?

- a) It continues to flow
- b) It reaches maximum value
- c) It stops flowing
- d) It reverses direction

6. What does the time constant (￼) represent in an RC circuit?

- a) Time required to fully discharge
- b) Time required for 63% charge
- c) Time for the capacitor to lose all charge
- d) Time to reach 99% charge

7. Which capacitor type is best suited for high-frequency applications?

- a) Mica capacitor
- b) Ceramic capacitor
- c) Electrolytic capacitor
- d) Tantalum capacitor

8. What is the unit for measuring capacitive reactance (￼)?

- a) Farad
- b) Ohm
- c) Volt
- d) Coulomb

9. What is the dielectric constant of a vacuum?

- a) 0
- b) 1
- c) 100

- d) Infinite

10. Which of the following capacitors is polarized?

- a) Ceramic
- b) Mica
- c) Electrolytic
- d) Paper oil

11. What is the effect of decreasing the distance between plates in a capacitor?

- a) Decreases capacitance
- b) Increases capacitance
- c) Increases resistance
- d) No effect

12. Which type of capacitor is typically used in radio tuning circuits?

- a) Tantalum
- b) Fixed mica
- c) Variable capacitor
- d) Electrolytic capacitor

13. In an RC circuit, what happens when the switch is closed?

- a) The capacitor discharges immediately
- b) The capacitor charges to the source voltage
- c) The current flow becomes constant
- d) The circuit is shorted

14. How are capacitors connected to increase the total capacitance in a circuit?

- a) In series

- b) In parallel
- c) In sequence
- d) Alternating

15. What material is commonly used for electrolytic capacitors' electrodes?

- a) Tantalum
- b) Mica
- c) Metal plates with electrolyte
- d) Barium titanate

Answer Key:

1. c) C
2. d) Farad
3. e) Ceramic and plastic
4. a) Increases capacitance
5. c) It stops flowing
6. b) Time required for 63% charge
7. b) Ceramic capacitor
8. b) Ohm
9. b) 1
10. c) Electrolytic
11. b) Increases capacitance

12. c) Variable capacitor
13. b) The capacitor charges to the source voltage
14. b) In parallel
15. c) Metal plates with electrolyte