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22211 Applied Physics Mcq Question with Answers

- 1). For very low frequencies, capacitor acts as _____
A] Open circuit **Answer**
B] Short circuit
C] Amplifier
D] Rectifier
- 2). A capacitor consists of _____
A] Two conductors **Answer**
B] Two semiconductors
C] Two dielectrics
D] Two insulators
- 3). Capacitor preferred when there is high frequency in the circuits is _____
A] Electrolyte capacitor
B] Mica capacitor **Answer**
C] Air capacitor
D] Glass capacitor
- 4). Capacitance increases with _____
A] Increase in plate area **Answer**
B] Decrease in plate area
C] Increase in distance between the plates
D] Increase in density of the material

5). Capacitance increases with _____

- A] Increase in distance between the plates
- B] Decrease in plate area
- C] Decrease in distance between the plates **Answer**
- D] Increase in density of the material

6). Which among the following expressions relate charge, voltage and capacitance of a capacitor?

- A] $Q=C/V$
- B] $Q=V/C$
- C] $Q=CV$ **Answer**
- D] $C=Q^2V$

7). If a 2F capacitor has 1C charge, calculate the voltage across its terminals.

- A] 0.5V **Answer**
- B] 2V
- C] 1.5V
- D] 1V

8). What is the voltage across a capacitor at the time of switching, that is, when $t=0$?

- a) Infinity
- b) 0V **Answer**
- c) Cannot be determined
- d) 1V

9). If one plate of a parallel plate capacitor is charged to positive charge the other plate is charged to?

- a) Positive
- b) Negative **Answer**
- c) Positive or negative
- d) Not charged

10). A piezoelectric crystal is used to produce the ultrasound waves. What kind of ultrasound is produced?

- a) Pressure wave ultrasound **Answer**
- b) Electrical wave ultrasound
- c) Sound wave ultrasound
- d) Simple ultrasound

11). Which of the following relations are true?

- a) γ increases, penetration of sound increases, resolution decreases **Answer**
- b) γ increases, penetration of sound decreases, resolution decreases
- c) γ increases, penetration of sound decreases, resolution increases
- d) γ decreases, penetration of sound increases, resolution increases

12). When a motor boat in a sea travels faster than sound, then waves just like shock-waves are produced on the surface of water. These waves are called

- a). Shock waves
- b). Doppler's waves
- c). Refracted waves
- d). Bow waves **Answer**

13). What is Intensity of Sound?

- a). It is inversely proportional to the square of the distance of point from the source.
- b). It is directly proportional to the square of amplitude of vibration, square of frequency and density of the medium.
- c). Both A and B **Answer**
- d). Neither A nor B

14) . What is the unit of loudness?

- a). Bel
- b). Phon
- c). Decibel
- d). All of the above **Answer**

15). Which of the following statements is or are correct about longitudinal mechanical waves?

- a). The longitudinal mechanical waves which lie in the frequency range 20 Hz to 20000 Hz are called audible or sound waves.
- b). The longitudinal mechanical waves having frequencies less than 20 Hz are called infrasonic.
- c). The longitudinal mechanical waves having frequencies greater than 20,000 Hz are called ultrasonic waves.
- d). All of the above are correct **Answer**

16) The method of detecting the presence, position and direction of motion of distant objects by reflecting a beam of sound waves is known as _____.

- a). RADAR
- b).SONAR **Answer**
- c). MIR
- d). CRO

17) The technique used by bats to find their way or to locate food is _____.

- a) SONAR
- b)RADAR
- c) Echolocation **Answer**
- d)Flapping

18) An ultrasonic wave is sent from a ship towards the bottom of the sea. It is found that the time interval between the sending and receiving of the wave is 1.6 s. What is the depth of the sea, if the velocity of sound in the seawater is 1400 m/s?

- a) 1120 m
- b) 560 m
- c) 1400 m **Answer**
- d) 112 m

19) An example of a mechanical wave.

- a) Radio wave
- b) Light wave
- c) Infrared radiation
- d) Sound wave **Answer**

20) Which of the following quantities is transferred during wave propagation?

- a) Speed
- b) Mass
- c) Matter
- d) Energy **Answer**

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