

6. Basic Electricity

Q. ID: ITISKILL2959RN

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Answer Key

Duration: 30 Mins

Total Marks: 34

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1. Which is the unit of resistance?

- A) Watt
B) Ampere
C) Ohm
D) Volt

Answer: C) Ohm

2. What is the formula for induced emf?

- A) $B^2 L \sin \theta$ volts
B) $BL \sin \theta$ volts
C) $B^2 L^2 V \sin \theta$ volts
D) $BLV \sin \theta$ volts

Answer: D) $BLV \sin \theta$ volts

3. Which statement is correct according to Ohm's law?

- A) $I = V/R$
B) $I = R$
C) $I = R/V$
D) $I = 1/V$

Answer: A) $I = V/R$

4. Which is same in series connection of resistors in a circuit?

- A) Voltage
B) Resistance
C) Power
D) Current

Answer: D) Current

5. What is the power if an emf of one volt causes a current flow of 1 ampere?

- A) 1 kilowatt
B) 1 watt
C) 1 Kilowatt hour
D) 1 HP

Answer: B) 1 watt

6. Which machine converts mechanical energy into electrical energy?

- A) Iron box
B) Heater
C) Generator
D) Battery

Answer: C) Generator

7. Which law states that at constant temperature the current passing through a closed circuit is directly proportional to the potential difference and inversely proportional to the resistance?

- A) Newton's law
B) Lenz's law
C) Ohm's law
D) Hooke's law

Answer: C) Ohm's law

8. What is the voltage? $R = 250 \text{ Ohms}$ $I = 0.44 \text{ Amps}$ $V = \text{_____Volts}$

- A) 105 Volts
B) 108 Volts

- C) 110 Volts
D) 100 Volts

Answer: C) 110 Volts

9. What is the resistance? $I = 11.5 \text{ Amps}$ $V = 380 \text{ Volts}$ $R = \text{_____Ohms}$

- A) 13 ohms
B) 33 ohms
C) 23 ohms
D) 43 ohms

Answer: B) 33 ohms

10. What is the total resistance if two resistances of 4 ohms and 6 ohms are connected in parallel?

- A) 4
B) 2.4
C) 10
D) 5

Answer: B) 2.4

11. How much voltage will be required to illuminate a 40 watts fluorescent lamp draws a current of 0.10 amperes?

- A) 395 volts
B) 390 volts
C) 400 volts
D) 405 volts

Answer: C) 400 volts

12. How much watt second in 1 watt hour?

- A) 2000 watt sec
B) 3600 watt sec
C) 1000 watt sec
D) 4000 watt sec

Answer: B) 3600 watt sec

13. Which law states about electromagnetic induction?

- A) Ohm's law
B) Hooke's law
C) Lenz's law
D) Faraday's law

Answer: D) Faraday's law

14. What is the resistance of an electric iron if the rating of electric iron is 220 V and 500 watts?

- A) 94.8 ohms
B) 97.8 ohms
C) 95.8 ohms
D) 96.8 ohms

Answer: D) 96.8 ohms

15. What is the current flow in the bulb? $P = 550 \text{ watts}$ $R = 22 \text{ Ohms}$ $I = \text{_____Amps}$

- A) 4 Amps
B) 5 Amps
C) 3 Amps
D) 2 Amps

Answer: B) 5 Amps

16. How many hours will take for a 100 watts bulb to consume 1 kWh energy? $W = 1 \text{ Kwh}$ $P = 100$

Watts $t = \text{___} \text{Hours}$

- A) 24 hours B) 18 hours
C) 10 hours D) 12 hours

Answer: C) 10 hours

17. Which is equal to electric power?

- A) $R^2 I$ watts B) RI
C) IRA D) $I^2 R$ watts

Answer: D) $I^2 R$ watts

18. Which is the unit electrical power?

- A) Ohms B) Watts
C) Volts D) Ampere

Answer: B) Watts

19. How much power does it consumes if an electric heater draws a current of 10 amps at 200 volts?

- A) 2010 watts B) 2020 watts
C) 2000 watts D) 2030 watts

Answer: C) 2000 watts

20. What is the unit of intensity of magnetic field?

- A) Hertz B) wb/m
C) m/wb D) Coloumb

Answer: B) wb/m

21. What is the filament resistance if a 6 volt bulb draws a current of 0.5 Amps?

- A) 3 W B) 10 W
C) 1.2 W D) 12 W

Answer: D) 12 W

22. Which is very good conductor?

- A) Wrought iron B) Copper
C) Cast iron D) Steel

Answer: B) Copper

23. What is the current? $R = 50 \text{ Ohms}$ $V = 220 \text{ Volts}$
 $I = \text{___} \text{Amps}$

- A) 4.2 Amps B) 4.4 Amps
C) 4.1 Amps D) 4.3 Amps

Answer: B) 4.4 Amps

24. What is the power required? $I = 0.455 \text{ Amps}$ $R = 484 \text{ Ohms}$
 $P = \text{___} \text{Watts}$

- A) 99.2 watts B) 100.2 watts
C) 98.2 watts D) 101.2 watts

Answer: B) 100.2 watts

25. What is the total resistance if three resistances of 3 ohms, 9 ohms and 5 ohms are connected in series?

- A) 1/17 ohms B) 17 ohms
C) 7 ohm D) 11 ohms

Answer: B) 17 ohms

26. Which property of a substance is opposing the flow of electric current?

- A) EMF B) Resistance
C) Voltage D) Current

Answer: B) Resistance

27. What is the voltage of the immersion heater? $P = 500 \text{ watts}$ $I = 2.27 \text{ Amps}$
 $V = \text{___} \text{Volts}$

- A) 210.3 volts B) 220.3 volts
C) 200.3 volts D) 230.3 volts

Answer: B) 220.3 volts

28. What is the flow of electrons in any conductor?

- A) Current B) Resistance
C) Voltage D) Power

Answer: A) Current

29. Which is mineral insulator

- A) Porcelain B) Glass
C) Mica D) Quartz

Answer: C) Mica

30. What is the rated power if an adjustable resistor bears the following label 1.5 k ohms/ 0.08A?

- A) 9.4 watts B) 9.6 watts
C) 9.2 watts D) 9.8 watts

Answer: B) 9.6 watts

31. What does EMF stands for?

- A) Electronic Magnetic Force B) Electro Motive Force
C) Electromated Force D) Electro Magnetic Force

Answer: B) Electro Motive Force

32. Which is the unit of current?

- A) Ampere B) Ohm
C) Watt D) Volt

Answer: A) Ampere

33. Which is the example for statically induced emf?

- A) Motor B) Refrigerator
C) Transformer D) Generator

Answer: C) Transformer

34. Which is the example for dynamically induced Emf?

- A) Motor B) Motor bike
C) Car D) Generator

Answer: D) Generator