

Student Name: _____	Roll No: _____
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1. What is the x value for $x^2 + 62 = 126$?

- | | |
|------|-------|
| A) 4 | B) 10 |
| C) 6 | D) 8 |

2. Which among the following is an insulator?

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|--------------|-----------|
| A) Aluminium | B) Copper |
| C) Silver | D) Mica |

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

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

4. Which is the unit of current?

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

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

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

6. What is velocity of a body travels a distance of 168 metres in a line in 21 seconds?

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|-------------|------------|
| A) 12 m/sec | B) 8 m/sec |
| C) 10 m/sec | D) 6 m/sec |

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

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

8. Simplify: $(\frac{3}{4}) + (\frac{2}{5}) - (\frac{5}{20})$

- | | |
|----------------------|----------------------|
| A) $(\frac{3}{10})$ | B) $(\frac{12}{10})$ |
| C) $(\frac{13}{10})$ | D) $(\frac{9}{10})$ |

9. What is the retardation of a car moving with a velocity of 50 km/hr is brought to rest in 45 seconds?

- | | |
|---------------------------|---------------------------|
| A) 0.30 m/sec^2 | B) 0.40 m/sec^2 |
| C) 0.10 m/sec^2 | D) 0.20 m/sec^2 |

10. What is the speed of a train of 80 metre long train passes

a railway station platform of 120 metres length in 20 seconds?

- | | |
|---------------|---------------|
| A) 36 km/hour | B) 32 km/hour |
| C) 30 km/hour | D) 34 km/hour |

11. What is the area of an ellipse if the major and minor axes are 5 cm and 3 cm respectively?

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|----------------------|----------------------|
| A) 47 cm^2 | B) 57 cm^2 |
| C) 37 cm^2 | D) 27 cm^2 |

12. Which metal cannot be forged?

- | | |
|----------------|--------------|
| A) Mild steel | B) Cast iron |
| C) Alloy steel | D) Steel |

13. Which one of the following properties is the mechanical properties of metal?

- | | |
|---------------|--------------|
| A) Structure | B) Ductility |
| C) Fusibility | D) Corrosion |

14. What is the current?
 $R = 50 \text{ Ohms}$
 220 Volts
 $I = \text{_____ Amps}$

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

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

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

16. How much watt second in 1 watt hour?

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

17. What maximum height a stone will reach if it is thrown upwards with a velocity of 20m/sec?($g = 10 \text{ m/sec}^2$)

- | | |
|---------|---------|
| A) 30 m | B) 40 m |
| C) 10 m | D) 20 m |

18. What is the name of furnace to obtained cast iron?

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|--------------------------|-----------------------------------|
| A) Steel - Rever battery | B) Alloy metal - Electric furnace |
|--------------------------|-----------------------------------|

C) Mild steel - Blast furnace D) Cupola

19. What does EMF stands for?

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

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

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

21. How many days a mechanic takes to assemble 64 machines if he assembles 8 machines in 3 days?

- A) 22 days B) 26 days
C) 20 days D) 24 days

22. What is the value of $\tan 45^\circ$ if $\sin 45^\circ = \frac{1}{\sqrt{2}}$? | $\sin 45^\circ = \frac{1}{\sqrt{2}}$ ಆಗಿದ್ದರೆ $\tan 45^\circ$ ಮೌಲ್ಯ ಎಷ್ಟು?

(A) $\frac{1}{\sqrt{2}}$

(B) $\frac{\sqrt{3}}{2}$

(C) 1

(D) $\frac{1}{\sqrt{3}}$

- A) C B) A
C) B D) D

23. What is the potential energy in a body of mass 10 kg kept on the top of a pole 20 metres height?

- A) 1972 Joules B) 1962 Joules
C) 1952 Joules D) 1942 Joules

24. What is the length L2, if total length (L) is 2.75 metre and L1:L2 = 2:3?

- A) 1.65 metre B) 1.25 metre
C) 1.1 metre D) 1.75 metre

25. What is the work done in unit time?

- A) Acceleration B) Force
C) Energy D) Power

26. What is the area of a right angled triangle having a base 10 cm and height 5 cm?

- A) 30 sq.cm B) 35 sq.cm
C) 25 sq.cm D) 20 sq.cm

27. What is called if a body does not change its position with respect to its surroundings?

- A) Velocity B) Speed
C) Body at rest D) Body at motion

28. Which property of material enables to formation of permanent deformation without fracture?

- A) Elasticity B) Ductility
C) Brittleness D) Plasticity

29. What is the length of each part is a copper wire of 225 metre long is cut into 900 equal parts?

- A) 0.29 metre B) 0.23 metre
C) 0.25 metre D) 0.28 metre

30. What is called if a body changes its position with respect to its surroundings?

- A) Body at rest B) Velocity
C) Speed D) Body at motion

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

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

32. Convert 0.456 decimal fraction into percentage?

- A) 0.000456 B) 0.0456
C) 0.456 D) 45.6

33. What is the carbon percentage in high carbon steel?

- A) 0.02% to 0.03% B) 0.25% to 0.50%
C) 0.50% to 1.50% D) 0.15% to 0.25%

34. Which is brittle metal?

- A) Alloy steel B) Mild steel
C) Steel D) Cast iron

35. What is the area of a circle of diameter 50 cm?

- A) 1952.5 cm² B) 1932.5 cm²
C) 1962.5 cm² D) 1942.5 cm²

36. What is the ratio of power output to power input? | ವಿದ್ಯುತ್ ಉತ್ಪಾದನೆಯ ವಿದ್ಯುತ್ ಇನ್ಪುಟ್ ಅನುಪಾತ ಎಷ್ಟು?

- A) Energy B) Efficiency
C) Acceleration D) Work

37. What is the area of a sector of a circle of radius 5 cm and its angle is 96 Degree?

- A) 20.89 cm² B) 20.39 cm²
C) 20.93 cm² D) 20.98 cm²

38. Which is the unit of resistance?

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

39. What is the boiling point of water? | ನೀರಿನ ಕುದಿಯುವ ಬಿಂದು ಯಾವುದು?

- A) 32°C
- B) 100°C
- C) 212°C
- D) 0°C

40. What is the carbon percentage in medium carbon steel?

- A) 0.05% to 0.15%
- B) 0.5% to 1.5%
- C) 0.25% to 0.5%
- D) 0.15% to 0.25%