



- A) Ductility  
**C) Hardness**

- B) Malleability  
D) Toughness

- A) 75 cm<sup>2</sup>  
C) 85 cm<sup>2</sup>

- B) 80 cm<sup>2</sup>**  
D) 90 cm<sup>2</sup>

18. Which property of metal has its power of returning to its original shape after the applied force is released?

- A) Malleability  
**C) Elasticity**

- B) Tenacity  
D) Plasticity

29. What is the perimeter of scalene. Triangle having sides of 40mm, 20mm and 28mm?

- A) 68 mm  
**C) 88 mm**

- B) 78 mm  
D) 98 mm

19. Which cast iron cannot be welded?

- A) Grey cast iron  
C) Malleable cast iron

- B) White cast iron**  
D) Nodular cast iron

30. What is the cross sectional area of a circular ring of D = 38 mm d = 32mm?

- A) 320 mm<sup>2</sup>  
C) 340 mm<sup>2</sup>

- B) 330 mm<sup>2</sup>**  
D) 350 mm<sup>2</sup>

20. Which metal cannot be forged?

- A) Alloy steel  
C) Steel

- B) Mild steel  
**D) Cast iron**

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

- A) 27 cm<sup>2</sup>  
**C) 47 cm<sup>2</sup>**

- B) 37 cm<sup>2</sup>  
D) 57 cm<sup>2</sup>

21. Which metal is widely used for making casting of machinery parts?

- A) Grey cast iron**  
C) Malleable cast iron

- B) White cast iron  
D) Wrought iron

32. What is the capacity of a conical tank of radius 2 m and height 5m?

- A) 11 m<sup>3</sup>  
C) 31 m<sup>3</sup>

- B) 21 m<sup>3</sup>**  
D) 41 m<sup>3</sup>

22. Which furnace is used to get pig iron from iron ore?

- A) Mild steel - Rever battery  
**C) Blast furnace**

- B) Electric furnace  
D) Cupola

33. What is the formula for velocity?

- A) Distance covered/Time  
C) Change in velocity/Time

- B) Displacement/Time**  
D) Change of momentum/Time

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

- A) Cupola**  
C) Steel - Rever battery

- B) Mild steel - Blast furnace  
D) Alloy metal - Electric furnace

34. What is called if a body posses only magnitude or size alone?

- A) Speed  
C) Vector quantity

- B) Velocity  
**D) Scalar quantity**

24. What is the other name of low carbon steel?

- A) Low alloy steel  
C) High speed steel

- B) High alloy steel  
**D) Mild steel**

35. What is called if a body posses both magnitude and direction of velocity?

- A) Speed  
**C) Vector quantity**

- B) Velocity  
D) Scalar quantity

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

- A) 0.02% to 0.03%  
C) 0.25% to 0.50%

- B) 0.15% to 0.25%  
**D) 0.50% to 1.50%**

36. What is the rate of change of displacement of a body?

- A) Body at rest  
C) Speed

- B) Body at motion  
**D) Velocity**

26. What is the ore of aluminium?

- A) Hematite  
**C) Bauxite**

- B) Mallatite  
D) Lemonite

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

- A) Body at rest  
C) Speed

- B) Body at motion**  
D) Velocity

27. Which property of a metal enables it by which it can be drawn out into wires under tension without rupture?

- A) Ductility**  
C) Hardness

- B) Malleability  
D) Brittleness

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

- A) 6 m/sec

- B) 8 m/sec**

C) 10 m/sec

D) 12 m/sec

A) 639 Joules

B) 649 Joules

C) 659 Joules

**D) 669 Joules**

39. What is the formula for acceleration?

A) Metre/second

**B) Metre/second<sup>2</sup>**

C) Metre/minute

D) Metre/hour

40. How many newtons for 1 kilogram?

A) 981 Newtons

B) 98.1 Newtons

**C) 9.81 Newtons**

D) 0.981 Newtons

41. How many watts for 1 horse power in British system?

A) 726 watts

B) 736 watts

**C) 746 watts**

D) 756 watts

42. How much work done in one hour, if a pump can raise 100 liters of water through a height of 200 meters in one minutes?

A) 12 x 104 kg meter

**B) 12 x 105 kg meter**

C) 12 x 106 kg meter

D) 12 x 107 kg meter

43. What is the potential energy, if a body of mass 250 kg is at a height of 30 metre?

A) 72.57 KJ

**B) 73.57 KJ**

C) 74.57 KJ

D) 75.57 KJ

44. What is the work done in joules if a load of 15.5 kg is lifted through a height of 4.4 metres?

45. What is the kinetic energy of a bullet of mass 5gm travels with a speed of 500 m/sec?

A) 620 Joules

**B) 625 Joules**

C) 630 Joules

D) 635 Joules

46. What is the square root of 0.017?

A) 0.001

**B) 0.13**

C) 0.00001

D) 0.000001

47. How much is 8% of 40 kg?

A) 2.2 kg

**B) 3.2 kg**

C) 4.2 kg

D) 5.2 kg

48. What is the percentage of copper if the casting weight of copper 42.3 kg and tin weight 2.7 kg?

A) Cu 92%

**B) Cu 94%**

C) Cu 96%

D) Cu 98%

49. What is the LCM of 12, 18, 6, 36?

A) 12

B) 18

**C) 36**

D) 42

50. What is the square root of 529?

A) 12

**B) 23**

C) 33

D) 43