

Student: Ganesh Suresh Chavan

Score: 23/25 (92.00%)

Code: 5397

1. What is the value of $14x + 3y + 25x + 2y$?

- A) $17x + 27y$ B) $16x + 28y$
C) $39x + 5y$ (Correct) D) $44xy$

2. What is the value of adding $(5x + 2y)$, $(4x - 7z)$ and $(15z - 3y)$?

- A) $9x - y + 8z$ (Correct)** B) $x - 9y + 8z$
 C) $x + 9y + 8z$ D) $9x + y - 8z$

3. What is the value of x , if $3(2x - 4) = -4x + 28$?

- A) 4 (Correct)** B) 8
 C) 6 D) 12

4. What is the value of $a^2 + b^2$ if $a + b = 9$ and $ab = 20$?

- A) 121 B) (-121)
C) 41 (Correct) D) (-41)

5. What is the radius of a circle whose diameter is 44 cm?

- A) 44 cm B) **22 cm (Correct)**
 C) 23 cm D) 20 cm

6. What is the current?

$R = 50 \text{ Ohms}$
 220 Volts
 $I = \text{_____ Amps}$

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

7. What is the unit of strain?

- A) Kg/cm^2 B) Newton/metre^2
 C) Metre **D) No unit (Correct)**

8. What is the ratio of ultimate load to area of original cross section?

- A) Factor of safety B) Yield point
C) Ultimate stress (Correct) D) Young's modulus

9. What is the ratio of shear stress to shear strain?

A) Modulus of elasticity
 (Incorrect)

C) Bulk modulus

B) Modulus of rigidity

D) Yield point

10. What is the minimum permissible size of aluminium wire used in estimation?

- A) 1.5 sq.mm (Correct)** B) 2.5 sq.mm
 C) 5 sq.mm D) 3.5 sq.mm

11. What is the weight of the iron ball has volume of 250 cc and density 7.5 gm/cc?

- A) 1750 gram B) **1875 gram (Correct)**
 C) 1975 gram D) 1785 gram

12. What is the total cost to assemble 10 personal computer systems, spares cost as given for one system: 1 TB hard disc Rs.4500/-, Intel i3 mother board Rs.7000/-, SMPS Rs.2500/-, monitor Rs.6000/-, keyboard Rs.1000/-, other material cost (Switches, USB, Cable)

- A) Rs.275000/-** B) Rs.250000/-
 C) Rs.225000/- (Incorrect) D) Rs.265000/-

13. Which instrument is used to measure heat?

- A) Calorie meter (Correct)** B) Thermometer
 C) Pyrometer D) Barometer

14. What is the melting point of aluminium?

- A) 660 Degree C (Correct)** B) 680 Degree C
 C) 670 Degree C D) 620 Degree C

15. What effort required to lift a load of 150 kg in a wheel and axle, if the velocity ratio is 2.5 and the efficiency of the machine is 75%?

- A) 70 kg B) **80 kg (Correct)**
 C) 90 kg D) 100 kg

16. Which one is non-metal?

- A) Mercury B) **Graphite (Correct)**
 C) Brass D) Iron

17. Which mechanical property of a metal offers resistance to elastic deformation in a cutting tool?

- A) Ductility B) Malleability
C) Hardness (Correct) D) Toughness

18. What is the side of a square whose area is 625 mm^2 ?

- A) 15 mm B) 20 mm
C) 25 mm (Correct) D) 30 mm

19. How many liters of water a cylindrical tank of radius 75 cm and height 100 cm can hold?

- A) 1766.25 liters (Correct)** B) 1767.25 liters
C) 1768.25 liters D) 1769.25 liters

20. What is the expanded form of S.P?

- A) Selected Price B) Special Price
C) Selling Price (Correct) D) Super Price

21. What is the formula to find Profit %?

- A) $((C.P)/(\text{Profit})) \times 100$ B) $((\text{Profit})/(S.P)) \times 100$
C) $((S.P - C.P)/(\text{Profit})) \times 100$ **D) $((\text{Profit})/(C.P)) \times 100$ (Correct)**

22. What is the compound interest on a principal of Rs.25000/- after 3 years at the rate of 12% per annum?

- A) Rs. 9000 B) Rs.9720
C) Rs.10123.20 (Correct) D) Rs.10483.20

23. 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% (Correct)**
C) Cu 96% D) Cu 98%

24. What is the angle of elevation of the top of a light house of 15 m height seen at a point 15 m away from the base?

- A) 30 Degree **B) 45 Degree (Correct)**
C) 60 Degree D) 90 Degree

25. Simplify: $(3/4) + (2/5) - (5/20)$

- A) $(3/10)$ **B) $(9/10)$ (Correct)**
C) $(12/10)$ D) $(13/10)$