

Duration: 30 Mins

Total Marks: 25

ID: ITISKILL3225XS

Student Name: _____ Roll No: _____

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

- A) Yield point B) Modulus of rigidity
C) Modulus of elasticity D) Bulk modulus

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

2. 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.10123.20
C) Rs.10483.20 D) Rs.9720

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

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

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

- A) 4 B) 12
C) 6 D) 8

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

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

4. 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, Cabl

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

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

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

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

- A) 23 cm B) 22 cm
C) 20 cm D) 44 cm

13. 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) 45 Degree B) 90 Degree
C) 30 Degree D) 60 Degree

6. What is the melting point of aluminium?

- A) 680 Degree C B) 620 Degree C
C) 660 Degree C D) 670 Degree C

14. Which instrument is used to measure heat?

- A) Barometer B) Calorie meter
C) Pyrometer D) Thermometer

7. Which one is non-metal?

- A) Mercury B) Graphite
C) Brass D) Iron

15. What is the formula to find Profit %?

- A) $\frac{(S.P-C.P)}{(Profit)} \times 100$ B) $\frac{(Profit)}{(C.P)} \times 100$
C) $\frac{(C.P)}{(Profit)} \times 100$ D) $\frac{(Profit)}{(S.P)} \times 100$

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

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

16. What is the unit of strain?

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

9. What is the current? $R = 50 \text{ Ohms}$ 220 Volts $I = \text{_____Amps}$

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

- A) 1875 gram B) 1750 gram
C) 1785 gram D) 1975 gram

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

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

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

- A) Youngs modulus
- B) Ultimate stress
- C) Yield point
- D) Factor of safety

20. 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) 80 kg
- B) 70 kg
- C) 100 kg
- D) 90 kg

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

- A) Cu 98%
- B) Cu 96%
- C) Cu 94%
- D) Cu 92%

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

- A) 1767.25 liters
- B) 1769.25 liters
- C) 1766.25 liters
- D) 1768.25 liters

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

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

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

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

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

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