Student: Poornima
Score: 17/25 (68.00%)

Code: 1413

1. Which is the formula for a^m / a^n

A) a^{m+n} **B) a^{m-n} (Correct)**

C) a^{mxn} D) $(a^m)^n$

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

A) 9x - y + 8z B) x - 9y + 8z

C) x + 9y + 8z D) 9x + y - 8z (Incorrect)

3. Which is the expansion of $a^3 + b^3$?

A) (a-b) (a² + b² - ab) (Incorrect) **B) (a+b) (a² + b² - ab)**

C) $a^3 + b^3 + 3ab$ (a+b) D) $a^3 - b^3 + 3ab$ (a-b)

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. Which machine converts mechanical energy into electrical energy?

A) Battery **B) Generator (Correct)**

C) Heater D) Iron box

6. Which is equal to electric power?

A) $R^2 I$ watts **B) $I^2 R$ watts**

C) RI (Incorrect) D) IRA

7. Which is the unit electrical power?

A) Volts B) Ohms

C) Watts (Correct) D) Ampere

8. What is the term used for maximum stress attained by a material before rupture?

A) Tensile stress B) Compressive stress

C) Working stress **D) Ultimate stress (Correct)**

9. Which authority publishes schedule of rates?

A) Individual B) Corporate

C) Partnership firm **D) Government department (Correct)**

10. What is the term, for the details of materials, brand name, grade of quality, rating of current and voltage etc.?

A) Drawing **B) Specification of materials**

C) Raw materials (Incorrect) D) Price catalogue

11. Which affects the centre of gravity of the object

A) Weight **B) Mass (Correct)**

C) Density D) Shape

12. What is the co-efficient of linear expansion of a rod if it is found to be 100 m long at 20 Degree C and 100.14 m long at 100 Degree C?

A) 1.75 x 10-4 / Degree C **B) 1.75 x 10-5 / Degree C (Correct)**

C) 1.75 x 10-6 / Degree C D) 1.75 x 10-7 / Degree C

13. What is the name of fixed or supporting point of a lever?

A) Mechanical advantage **B) Fulcrum**

C) Effort (Incorrect) D) Load

14. What is termed as the quantity of matter contained in a body?

A) Density B) Volume

C) Mass (Correct) D) Specific gravity

15. What is called mass per unit volume of a substances?

A) Mass B) Weight

C) Density (Correct) D) Volume

16. What is the carbon percentage in low carbon steel?

A) 0.02% to 0.03% **B) 0.15% to 0.25% (Correct)**

C) 0.25% to 0.50% D) 0.50% to 1.50%

17. What is the area of an equilateral triangle of side 450 mm?

A) 856.82 cm² B) 866.82 cm²

C) 876.82 cm² (Correct) D) 886.82 cm²

18. Find the total surface area of cube whose side is 25 cm.

A) 3740 cm^2 B) 3745 cm^2

C) 3750 cm^2 (Correct) D) 3755 cm^2

19. What is a profit?

A) Selling price - Cost price B) Cost price - Selling price

C) Selling price + Cost price (Incorrect) D) Cost price + Selling price

20. What is denoted as 'I'?

A) Principal **B) Interest (Correct)**

C) Rate D) Year

21. What is the compounded amount, if the principal of Rs.30000/- and interest earned at 7% per annum is Rs.4347?

A) Rs.30347/- B) Rs.32347/-

C) Rs.33347/- **D) Rs.34347/- (Correct)**

22. How much is 8% of 40 kg?

A) 2.2 kg **B) 3.2 kg**

C) 4.2 kg (Incorrect) D) 5.2 kg

23. What is the height of the wall where the ladder touches the wall if the ladder is 2.5 m long makes an angle of 60 Degree with the ground?

A) 4.13 m B) 4.23 m (Incorrect)

C) 2.165 m D) 4.43 m

24. What is the height of the building if a ladder at 45 Degree touches the building placed 16 m from the base of the building?

A) 15 m **B) 16 m (Correct)**

C) 17 m D) 18 m

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

A) 12 B) 18

C) 36 (Correct) D) 42