

Student: Vinyas

Score: 20/25 (80.00%)

Code: 1293

1. Which is the formula for $a^m \div a^n$

- A) a^{m+n} **B) a^{m-n} (Correct)**
 C) a^{mxn} D) $(a^m) \div a^n$

2. Which is equal to $(a+b)^2 - (a-b)^2$

- A) $2ab$ B) $3ab$
C) $4ab$ (Correct) D) $5ab$

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

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

4. What are the three consecutive numbers if their sum is 42?

- A) 11,12,13 B) 12,13,14
C) 13,14,15 (Correct) D) 14,15,16

5. What is the area of the circle, if the circumference of the circle is 44cm?

- A) 128 cm^2 B) 130 cm^2
C) 154 cm^2 (Correct) D) 129 cm^2 (Incorrect)

6. What is the area of the circle if the radius is 10 cm?

- A) 314 cm^2 (Correct)** B) 31.4 cm^2 (Incorrect)
 C) 30.4 cm^2 D) 3.14 cm^2

7. What is the minimum permissible area of conductor (U/G cable) for three and half cores cable?

- A) 25 sq.mm (Incorrect) **B) 50 sq.mm**
 C) 5 sq.mm D) 100 sq.mm

8. What is the total wattage in a room if 2 tube lights of 50W rating, 2 fans of 80W rating, 2 numbers of light points of 60W rating, one fan point of 60W rating and one 3 pin socket of 100W rating?

- A) 340 W B) 440 W
C) 540 W (Correct) D) 640 W

9. 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.275000/-** B) Rs.250000/-
 C) Rs.225000/- (Incorrect) D) Rs.265000/-

10. Which one of the following geometrical shape's centre of gravity lies from its base is 1/3 of its height?

- A) Square B) Rhombus
C) Triangle (Correct) D) Cone

11. What is called if the length of the solid expands when heated?

- A) Linear expansion (Correct)** B) Superficial expansion
 C) Cubical expansion D) Area expansion

12. What is the unit of co-efficient of linear expansion?

- A) Number / Degree C (Correct)** B) Number / Degree C / meter length
 C) Number / Degree C / mm D) Number / Degree C / cm length

13. Which one has the highest thermal conductivity?

- A) Solid ice (Correct)** B) Melting ice
 C) Water D) Steam

14. What are the various stages of heat treatment?

- A) Heating, Cooling and Quenching (Incorrect) B) Quenching, Cooling and Heating
C) Heating, Soaking and Quenching D) Soaking, Quenching and Cooling

15. What is the mass if the density of a body is 7.6 g/cm^3 and its volume is 25 cm^3 ?

- A) 190 grams (Correct)** B) 200 grams
 C) 210 grams D) 220 grams

16. Which alloy used in electric lamp as filament?

- A) Cobalt B) Vanadium
C) Tungsten (Correct) D) Silicon

17. Which insulator is used in over head lines?

- A) Mica B) Rubber

C) P.V.C

D) Porcelain (Correct)

18. Which steel is used for making files and cold chisel?

A) Low carbon steel

B) Midium carbon steel

C) High carbon steel (Correct)

D) Stainless steel

19. What is the formula to find selling price (S.P) if there is a loss?

A) $\frac{((100)/(100+\text{Profit \%})) \times \text{S.P}}$ B) $\frac{((100+\text{Profit \%})/(100)) \times \text{C.P}}$

C) $\frac{((100)/(100-\text{Loss \%})) \times \text{S.P}}$ **D) $\frac{((100-\text{Loss \%})/(100)) \times \text{C.P}}$ (Correct)**

20. 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

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

A) 0.40 m/sec² **B) 0.30 m/sec² (Correct)**

C) 0.20 m/sec² D) 0.10 m/sec²

22. What is equal to $\cos \theta$?

A) Hypotenuse/Adjacent Side

B) Adjacent Side/Hypotenuse (Correct)

C) Opposite side/Hypotenuse

D) Hypotenuse/Opposite Side

23. 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

24. What are fundamental units?

A) Length, Mass, Volume

B) Length, Mass, Time (Correct)

C) Length, Mass, Area

D) Length, Pressure, Volume

25. What is the square root of 529?

A) 12

B) 23 (Correct)

C) 33

D) 43