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Trinity, College udhyavara udupi

Question Paper

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Score: 40/50 (80.00%)

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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 multiplication value of $5a^2 \times 8a^5 \times b^3$?

- A) $40a^7 \times b^4$ B) $40a^3 \times b^2$
C) $40a^4 \times b^7$ D) $40a^2 \times b^3$ (Incorrect)

3. What is the simplified value of $(3x + 15) / 5x + 25$?

- A) $(5/3)$ B) **$(3/5)$ (Correct)**
C) $(-5/3)$ D) $(-3/5)$

4. What is the formula for $a^m \times a^n$?

- A) **a^{m+n}** B) a^{m-n}
C) a^{mn} (Incorrect) D) $n.a^m$

5. Which is the formula for a^m / a^n ?

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

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

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

7. What is the value of $a \times a^2 \times a^3 \times a^4$?

- A) a^7 B) a^8
C) a^9 (Incorrect) D) **a^{10}**

8. What is the value of 625^0 ?

- C) 525 B) **1**
D) 25 (Incorrect)

9. 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)

10. What is the value of $12x^3 \times y^2 / 4x^2 \times y$?

- A) $8xy$ B) $16xy$
C) $3xy$ (Correct) D) $(-3xy)$

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

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

12. What is the expansion of $(a+b+c)^2$?

- A) **$a^2 + b^2 + c^2 + 2(ab + bc + ca)$ (Correct)** B) $a^2 + b^2 + c^2 - 2ab + 2bc + 2ca$
C) $a^2 + b^2 + c^2 + 2ab - 2bc + 2ca$ D) $a^2 - b^2 - c^2 + 2ab + 2bc + 2ca$

13. What is the value of $(6^3) / ((-3)^3)$?

- A) 8 B) **(-8) (Correct)**
C) 27 D) (-27)

14. What is the value of 'X' if $x - y = 6$ and $x + y = 8$?

- A) 5 B) 6
C) 7 (Correct) D) 14

15. What are the three consecutive numbers if there sum is 42?

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

16. Which affects the centre of gravity of the object

- A) Weight B) **Mass**
C) Density D) Shape (Incorrect)

17. What is the name of the point at which all the weight of the body concentrated?

- A) Initial point B) **Centre of gravity (Correct)**
C) Centroid D) Central point

18. Where the centre of gravity of a circle lies?

- A) **At its centre (Correct)** B) Any where on its radius
C) Any where on its circumference D) Any where on its diameter

19. What is the centre of gravity of a right circular cone from its base?

- A) $h/2$ B) $h/3$
C) **$h/4$ (Correct)** D) $h/5$

20. What is the centre of gravity of a rectangular body?

- A) Longer side of rectangle B) Shorter side of rectangle
C) **At the point of intersection of its diagonals (Correct)** D) At the corners

21. What is the centre of gravity of a solid hemisphere from its base?

- A) $4r/5$ B) **$3r/8$ (Correct)**
C) $3r/4$ D) $r/2$

22. Which state of equilibrium's example is A cone resting on its tip?

- A) Stable B) Neutral
C) **Unstable (Correct)** D) Horizontal

23. 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** D) Cone (Incorrect)

24. Which state of equilibrium's example is, A cone resting on its base?

- A) Un-stable B) Neutral
C) **Stable (Correct)** D) Bothe A and B

25. What is the centre of gravity of a semi circle of diameter 12 cm?

- A) 2.24 cm B) **2.54 cm (Correct)**
C) 3.25 cm D) 2.75 cm

26. What is discount?

- A) Selling price is less than Cost price B) Selling price is greater than Cost price
C) **The reduction given to the selling price of a product (Correct)** D) Selling price + discount

27. What is a profit?

- A) **Selling price - Cost price (Correct)** B) Cost price - Selling price

C) Selling price + Cost price D) Cost price + Selling price

28. What is the term, if an article is purchased?

- A) Selling price (Incorrect) B) **Cost price**
C) Margin price D) Discount price

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

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

30. Which is the short form of profit and loss statement?

- A) **P & L (Correct)** B) PR & LS
C) PRO & LOS D) L & P

31. What is denoted as 'I'?

- A) Principal B) **Interest (Correct)**
C) Rate D) Year

32. How the 'Principal' is denoted in simple interest calculation?

- A) **'P'** B) 'I' (Incorrect)
C) 'R' D) 'n'

33. How the profit / gain is expressed?

- A) Rs. B) \$
C) **% (Correct)** D) *

34. What is the formula to find Loss %?

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

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

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

36. What is the formula to find Profit %?

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

37. What is the profit amount, if the i - phone cost price is Rs.50000/- and selling price is Rs.70000/-?

- A) Rs. 2000/- B) Rs. 10000/-
C) **Rs. 20000/- (Correct)** D) Rs. 50000/-

38. What is the selling price, if the profit is 5% for a computer table bought at Rs.1150/- with Rs.50/- as a transport charge?

A) 1160
C) 1060

B) 1620
D) 1260 (Correct)

39. What is the cost price if the product is sold at Rs. 572 with a profit of Rs. 72?

A) Rs. 500 (Correct)
C) Rs. 644

B) Rs. 1000
D) Rs. 472

40. What is the profit % if the cost price of 16 bolts is equal to the selling price of 12 bolts?

A) 13.33
C) 33.33 (Correct)

B) 23.33
D) 43.33

41. What is the selling price if the cost price is Rs.7282/- with a profit of Rs.208?

A) Rs.7074
C) Rs.7290

B) Rs.7698
D) Rs.7490 (Correct)

42. What is the principal amount deposited, if the maturity proceeds to an amount of Rs.25000/- and interest earned Rs.6000/-?

A) Rs.31000/-
C) Rs.20000/-

B) Rs.19000/- (Correct)
D) Rs.25000/-

43. What is the interest earned, if the principal is for Rs.12500/- maturity becomes to a amount of Rs.17500/-?

A) Rs.30000
C) Rs.5000 (Correct)

B) Rs.25000
D) Rs.5500

44. What is the matured amount for the deposit of Rs.5000/- and the simple interest earned for Rs.500/-?

A) Rs.4500

B) Rs.5500 (Correct)

C) Rs.6000

D) Rs.6500

45. What is the simple interest for the principal amount of Rs.100000 at 10% per annum for 1 year period?

A) Rs.1000/-
C) Rs.50000/-

B) Rs.5000/-
D) Rs.10000/- (Correct)

46. What is the compounded annual interest, for a loan amount of Rs.80000/- at 10% per annum for a period of 2 years?

A) Rs.16800/- (Correct)
C) Rs.96800/-

B) Rs.92400/-
D) Rs.94800/-

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

A) Rs.30347/-
C) Rs.33347/-

B) Rs.32347/-
D) Rs.34347/- (Correct)

48. What is the difference between the simple and the compound interest amount at 5% per annum for 2 years on a principal of Rs.20000/-?

A) Rs.5
C) Rs.50 (Correct)

B) Rs.25
D) Rs.55

49. What is the maturity amount if Rs.20000 is deposited at 5% compound interest per annum for 2 years?

A) Rs.22000
C) Rs.22500

B) Rs.22050 (Correct)
D) Rs.25000

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

A) Rs. 9000
C) Rs.10123.20 (Correct)

B) Rs.9720
D) Rs.10483.20