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Trinity, College udhyavara udupi

Question Paper

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Score: 39/50 (78.00%)

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

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

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

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

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

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

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

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

8. What is the value of 625^0 ?

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

9. 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) $9x + y - 8z$

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

- A) $8xy$ (Incorrect) B) $16xy$
C) $3xy$ 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 (Incorrect) **B) (-8)**
 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 their 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 (Incorrect) D) Shape

17. What is the name of the point at which all the weight of the body is 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 (Incorrect)
C) **Unstable** 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 (Correct)** D) Cone

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 B) **Cost price (Correct)**
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' (Correct)** B) 'I'
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) $(\text{C.P}) / (\text{Loss} \times 100)$
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 B) 1620
C) 1060 **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** B) Rs. 1000
C) Rs. 644 (Incorrect) 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 B) 23.33
C) 33.33 (Correct) 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 B) Rs.7698
C) Rs.7290 **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/- **B) Rs.19000/- (Correct)**
C) Rs.20000/- 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 (Incorrect) B) Rs.25000
C) Rs.5000 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/- B) Rs.5000/-
C) Rs.50000/- **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)** B) Rs.92400/-
C) Rs.96800/ 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/- B) Rs.32347/-
C) Rs.33347/- **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 B) Rs.25
C) Rs.50 (Correct) 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 **B) Rs.22050 (Correct)**
C) Rs.22500 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 B) Rs.9720
C) Rs.10123.20 (Correct) D) Rs.10483.20