

hungaricum

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- A. Rs. 870
- B. Rs. 900
- C. Rs. 910
- D. Rs. 923

55. Abdullah gave Rs. 60 to Umar and Umar gave Rs. 90 to Ahmed. After this, all of them have same money. How much more Umar has than Ahmed?

- A. Rs. 30
- B. Rs. 60
- C. Rs. 90
- D. Rs. 120

56. The average of first ten whole numbers is

- A. 3.5
- B. 4.0
- C. 4.5
- D. 5.5

57. What amount is invested in the bank to get a profit of Rs. 3500 at a rate of 7% for 4 years?

- A. 10000
- B. 12500
- C. 15000
- D. 16500

PAST PAPERS QUANTITATIVE REASONING

53. Which of the following is a perfect number?

- A. 24
- B. 26
- C. 28
- D. 32

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54. The sale price of a book is Rs. 888 with a loss of 5%.
What is the cost price of a book?

- A. Rs. 870
- B. Rs. 900
- C. Rs. 910
- D. Rs. 993

55. Abdullah gave Rs. 60 to Umar and Umar gave Rs. 90 to Ahmed. After this, all of them have same money. How much more Umar has than Ahmed?

- A. Rs. 30
- B. Rs. 60
- C. Rs. 90
- D. Rs. 120

56. The average of first ten whole numbers is _____.

- A. 3.5
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QUANTITATIVE REASONING

27. The multiplicative inverse of $-5/6$ is Hungaricum

- A. $-5/6$
- B. $-6/5$
- C. $5/6$
- D. $6/5$

28. 75% of what number is 51?

- A. 38.25
- B. 68
- C. 100
- D. 136

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29. Cost of 6 books is Rs. 968. The cost price of 3 books is _____.

- A. Rs. 161.333
- B. Rs. 322.667
- C. Rs. 484
- D. Rs. 4840

30. $32 - [36 - 2\{5 \times 2 + 7 - 6\}] = \text{_____}$.

- A. -14
- B. 2
- C. 14
- D. 18

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31. What is the next term in the sequence 3, 7, 12, 18, 23, Hungaricum _____.

- A. 38
- B. 39
- C. 40
- D. 42

32. Simplify $\sqrt{\frac{36}{2}}$

- A. $\sqrt{3}$
- B. $3\sqrt{2}$
- C. 3
- D. 6

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33. The ascending order of fractions $\frac{3}{4}, \frac{4}{5}, \frac{7}{10}$ is _____.

- A. $\frac{7}{10}, \frac{4}{5}, \frac{3}{4}$
- B. $\frac{7}{10}, \frac{3}{4}, \frac{4}{5}$
- C. $\frac{3}{4}, \frac{7}{10}, \frac{4}{5}$
- D. $\frac{4}{5}, \frac{3}{4}, \frac{7}{10}$

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34. Ahmed has $\frac{95}{9}$ liters of paint in a container. He pours $\frac{59}{9}$ liters in a container and $\frac{35}{12}$ liters in another. How much paint is left?

- A. $\frac{7}{36}$
- B. $\frac{11}{36}$
- C. $\frac{13}{12}$
- D. $\frac{1}{36}$

35. Factors of $x^2 - 6x + 5 = 0$ are _____.

- A. -1, -5
- B. -1, 5
- C. 1, -5
- D. 1, 5

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36. If $f(x) = x^3 + 5kx - 70$ and $f(2) = 28$ then value of k is _____.

- A. -9
- B. -7
- C. 7
- D. 9

42. What is the angle between the hands of a clock at 9 O'clock?

- A. 0°
- B. 60°
- C. 90°
- D. 120°

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43. In a scalene triangle _____.

- A. all angles are different in measure
- B. all angles are same in measure
- C. every angle is of 90°
- D. two angles are same in measure

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44. A dice is rolled twice. The probability of getting doublets is _____.

- A. $1/36$
- B. $1/18$
- C. $1/9$
- D. $1/6$

45. The value of x in the linear equation $\frac{3x - 4}{2} - \frac{x}{4} = \frac{13}{6}$ is _____.

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- A. $-50/3$
- B. $-10/3$
- C. $10/3$
- D. $50/3$

46. Find the quadratic equation whose roots are 1 and 2.

- A. $x^2 - 3x + 2$
- B. $x^2 - 3x - 2 = 0$
- C. $x^2 - 3x + 2 = 0$
- D. $x^2 - 2x + 3 = 0$

47. $21^{\circ}\text{C} = 5(F - 32)$ if $C = 100$ then value of F is _____

- A. $360/9$
- B. 148
- C. 189
- D. 212

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48. Pipe A can fill a tank in 2 hours, Pipe B can fill the tank in 1 hour 39 minutes and a Pipe C can fill it in 2 hours 30 minutes. Which pipe(s) is/are more efficient?

- A. Pipe A
- B. Pipe B
- C. Pipe C
- D. Both A and C

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49. The value of m in the ratio $3:m-3 = m-3:12$ is _____

- A. -3, -9
- B. -3, 9
- C. 3, -9
- D. 3, 9

50. The mode in the data 2, 3, 4, 9, 5, 6, 9, 8, 6, 5, 2, 9, 9 is _____.

- A. 2
- B. 5
- C. 8
- D. 9

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51. Find the number of diagonals that can be formed in a heptagon.

- A. 07
- B. 14
- C. 21
- D. 28

52. The median in the data 3, 10, 4, 5, 6, 7, 8, 8, 4 is _____

- A. 4.5
- B. 5
- C. 5.5
- D. 6

QUANTITATIVE REASONING

27. Which of the following is a rational number?

- A. π
- B. 1.252729...
- C. 7.323232...
- D. $\sqrt{27}$

28. If $f(x) = 3x^4 - 2x^2 + 7$ then value of $f(\sqrt{2})$ is _____.

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- A. 2
 - B. 3
 - C. $\sqrt{15}$
 - D. 15

29. The sale price of an article is Rs. 3597 with a profit of 9%. The cost price of article is _____.

- A. Rs. 310.50
- B. Rs. 3197.33
- C. Rs. 3250
- D. Rs. 3300

30. The difference of face value from place value of 5 in 7956 is _____.

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- A. -495
- B. -45
- C. 0
- D. 45

31. Car A is moving with a speed of 50km/h towards car B which is moving away from car A with a speed of 80 km/h. What is the relative speed of two cars?

- A. 40 kms
- B. 70 kms
- C. 90 kms
- D. 140 kms

32. The sum of exterior angles of a regular octagon is _____.

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- A. 30°
- B. 45°
- C. 360°
- D. 1080°

33. The age of mother is 3 times the age of her daughter. Six years ago, the age of mother was 5 times the age of her daughter. The age of mother after two years will be _____.

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- A. 32 years
- B. 36 years
- C. 38 years
- D. 40 years

34. The number of 5-digit numbers, that can be formed from the digits 4, 3, 5, 7, 9 is _____.

- A. 60
- B. 120
- C. 140
- D. 180

35. Two angles whose sum is 90° are called _____ angles.

- A. complementary
- B. right
- C. obtuse
- D. supplementary

36. $7\sqrt{2} - \sqrt{18} = \text{_____}$.

- A. $2\sqrt{6}$
- B. $2\sqrt{2}$
- C. $3\sqrt{2}$
- D. $4\sqrt{2}$

37. The equation $x^2 + y^2 = 1$ represents _____.

- A. parabola
- B. ellipse
- C. circle
- D. hyperbola

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38. $\log_2 2 + \log_2 5 \times \log_2 3 = \text{_____}$.

- A. 0
- B. 1
- C. 2
- D. 3

39. A man invests Rs. 10000 in the bank to get an interest of Rs. 2200 in five years. The rate of simple interest will be _____.

- A. 4.4%
- B. 5%
- C. 6.6%
- D. 8%

40. Which of the following is a binary operation?

- A. 4throot
- B. Cube
- C. Intersection
- D. Square

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41. What is the area of a pavement 2-meter wide which is drawn inside a rectangular park of dimensions 16 by 20?

- A. 35 m^2
- B. 37 m^2
- C. 128 m^2
- D. 160 m^2

42. The arithmetic mean of 15 numbers is 10. When two more values are added to the data the new arithmetic mean becomes 10. The value of two numbers is _____ if one number is 4 more than other.

- A. 7, 11
- B. 4, 16
- C. 8, 12
- D. 9, 13

43. The cost of 6 bats and 3 balls is Rs. 4500 and cost of 3 bats and 6 balls is Rs. 3600. The cost of one bat and a ball is _____.

- A. Rs. 300
- B. Rs. 600
- C. Rs. 750
- D. Rs. 900

44. Pipe A can fill a tank in 45 minutes. If both pipes A and B are opened the tank is full in 15 minutes. In how much time tank will be full if pipe B is opened?

- A. 20 minutes
- B. 22.5 minutes
- C. 30 minutes
- D. 35.5 minutes

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45. The sum of, sum and product of roots of equation $3x^2 - 7x + 15 = 0$ is _____.

- A. $8/3$
- B. 5
- C. $22/3$
- D. $35/3$

46. The cost price of 8 suits is Rs. 13400. What is the cost price of such 5 suits?

- A. Rs. 8000
- B. Rs. 8275
- C. Rs. 10275
- D. Rs. 8425

47. A boy travels 210 kms on a train in 3 hours. Then he travels 30 kms in one hour by bus. The average speed of boy for whole journey is _____.

- A. 50 km/h
- B. 55 km/h
- C. 60 km/h
- D. 70 km/h

48. The ratio between the length of square base of two pyramids is 3:7. What is the ratio between their volumes if the two pyramids are of equal height?

- A. 3:7
- B. 9:49
- C. 27:343
- D. 81:1728

49. What is the range in the data 2, 7, 9, 13, 2, 0, 3, -3, 7, 9, 8?

- A. 11
- B. 13
- C. 14
- D. 16

The arithmetic mean of 2, 4, 5, 9 is _____.

- A. 4
- B. 5
- C. 7
- D. 10

51. The total surface area of a topless box having dimensions' length = 3, width = 6 and height = 10 is _____ Sq units.

- A. 156
- B. 186
- C. 198
- D. 216

52. The number of terms in the expression $x^3y^2 - xy^3 + y^4 + 4$ is _____.

- A. 3
- B. 4
- C. 5
- D. 8

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53. Convert the ratio 21/30 into percentage.

- A. 21%
- B. 42%
- C. 70%
- D. 85%

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54. Which of the following measures does NOT form a triangle?

- A. 5, 9, 7
- B. 6, 6, 10
- C. 7, 5, 12
- D. 15, 25, 34

55. $3 + [\{50 - 10 \times 2\} \div 5(15 - 13)] + 5 = \text{_____}$.

- A. 3
- B. 5
- C. 10
- D. 11

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56. The value of x in the equation $\frac{x}{5} - \frac{3}{2} = \frac{5x}{6} + \frac{2}{5}$ is _____.

- A. -3
- B. -3/2
- C. 3/2
- D. 3

57. What is the angle between the hands of clock at 10:30?

- A. 85°
- B. 105°
- C. 120°
- D. 135°

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QUANTITATIVE REASONING

27. Simplification of $\left(\sqrt{2} + \frac{2}{\sqrt{3}}\right)\left(\sqrt{2} - \frac{2}{\sqrt{3}}\right)$ is _____.

- A. $\frac{2}{3}$
- B. $\frac{4}{3}$
- C. $\frac{14}{9}$
- D. $\frac{8}{3}$

$$\left(\frac{\sqrt{2} \times \sqrt{3} + 2}{\sqrt{3}} \right) \left(\frac{\sqrt{2} \times \sqrt{3} - 2}{\sqrt{3}} \right)$$

28. If Umar takes Rs. 500 from Abdullah and Abdullah gives Rs. 1000 to Ahmed, after this all of them have equal amount of money. Find how much Umar has more than Ahmed.

- A. Rs. 250
- B. Rs. 500
- C. Rs. 2000
- D. Rs. 2500

$$\left(\frac{\sqrt{6} + 2}{\sqrt{3}} \right) \left(\frac{\sqrt{6} - 2}{\sqrt{3}} \right)$$

29. Evaluate $78^2 + 4 + 312$.

- A. 6084
- B. 6400
- C. 6724
- D. 7056

$$\left(2 + \frac{4}{\sqrt{3}} \right) \left(2 - \frac{4}{\sqrt{3}} \right)$$

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30. The angle between the hands of a clock at 6:50 is _____.

- A. 85°
- B. 95°
- C. 135°
- D. 145°

31. If the sum of square of 10 values is 390 and the sum of same values is $10\sqrt{14}$, what is the value of standard deviation?

- A. 3
- B. 5
- C. 9
- D. 25

32. Pipe A can fill a tank in 10 minutes, while pipes B and C can empty the tank in 30 and 35 minutes, respectively. Initially the tank is empty, find the time it takes to fill the tank if all three pipes are opened simultaneously.

- A. $\frac{105}{2}$ minutes
- B. $\frac{105}{4}$ minutes
- C. 20 minutes
- D. 26 minutes

33. Simplify $15 + [2^2 - \{0.5(3-7) + 8\} - 3^3]$.

$$= 15 + [2^2 - \{0.5(-4) + 8\} - 3^3]$$

$$= 15 + [4 + 8 - (-6)]$$

$$= 15 + 18 + 6$$

$$= 39 + 6$$

$$= 45$$

34. If $a + b = 5$, $a - b = \sqrt{29}$, then value of $2ab$ is _____.

- A. -4
- B. -2
- C. 27
- D. 54

35. The square root of $\left(x - \frac{1}{x}\right)^2 + 4\left(x - \frac{1}{x}\right) + 4$ is _____.

- A. $x - \frac{1}{x} - 2$
- B. $-x + \frac{1}{x} - 2$
- C. $-x - \frac{1}{x} + 2$
- D. $x + \frac{1}{x} + 2$

$$\sqrt{a^2 + 2ab + b^2} = \sqrt{(a+b)^2} = |a+b|$$

36. If $f(x)$ represents a straight line, then range of function is _____ numbers.

- A. natural
- B. rational
- C. real
- D. whole

37. If $f(x) = \sqrt{x-1}$, then domain of function is _____

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- A. $(1, \infty)$
- B. $[1, \infty]$
- C. $[1, \infty)$
- D. positive real numbers

38. The mode value in data $1, 2, 3, 4, 1, 4, 5, 3, 4, 2, 1, 78, 1, 3, 1$ is _____.

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- A. 1
- B. 1, 3
- C. 3, 4
- D. 4, 5

$$\begin{array}{l} 1 \rightarrow 5 \\ 2 \rightarrow 2 \end{array}$$

39. How many times does the volume of sphere becomes if the radius is made three times?

- A. 3
- B. 6
- C. 9
- D. 27

$$(3)^3 = 3 \times 3 \times 3 = 27$$

$$3 \times 3 \times 3 = 27$$

40. The area of a square field is 360000 square units. The string required for fixing along the sides as a fence is _____ units.

- A. 600
- B. 1200
- C. 2400
- D. 5200

$$A = 360000$$

$$\sqrt{(600)}$$

37. If $f(x) = \sqrt{x-1}$, then domain of function is _____

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- A. $(1, \infty)$
- B. $[1, \infty]$
- C. $[1, \infty)$
- D. positive real numbers

38. The mode value in data $1, 2, 3, 4, 1, 4, 5, 3, 4, 2, 1, 78, 1, 3, 1$ is _____.

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- A. 1
- B. 1, 3
- C. 3, 4
- D. 4, 5

$$\begin{array}{l} 1 \rightarrow 5 \\ 2 \rightarrow 2 \end{array}$$

39. How many times does the volume of sphere becomes if the radius is made three times?

- A. 3
- B. 6
- C. 9
- D. 27

$$(3)^3 = 3 \times 3 \times 3 = 27$$

$$3 \times 3 \times 3 = 27$$

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- A. 600
- B. 1200
- C. 2400
- D. 5200

$$A = 360000$$

$$\sqrt{(600)}$$

41. Simplification of $\frac{1}{x-y} + \frac{1}{x+y} - \frac{2x}{x^2+y^2}$ gives us _____.

- A. $\frac{4xy^2}{x^4-y^4}$
- B. $\frac{4xy}{x^4-y^4}$
- C. $\frac{4x^2y}{x^4-y^4}$
- D. $\frac{4x^2y}{x-y}$

$$\frac{1}{x-y} + \frac{1}{x+y} - \frac{2x}{x^2+y^2}$$
$$\frac{(x+y)(x^2+y^2) + (x-y)(x^2+y^2) - 2x(x-y)}{(x-y)(x+y)(x^2+y^2)}$$
$$(x-y)(x+y)(x^2+y^2)$$

42. Evaluate correct to 3 significant figure, the value of

52.97603-31.32186.

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- (A) 21.7
- B. 21.654
- C. 21.600
- D. 21.650

43. The value of median in data 98, 36, 24, 99, 83, 87, 29 is _____.

- A. 59.5
- B. 83
- C. 85
- D. 87

$$x-y \quad | \quad x-y \quad x+y \quad x+y$$
$$x \quad | \quad \textcircled{83},$$

24.

29.

36.

83.

87.

98

44. The solution of the equations

$x^2 + y^2 = 64$ and $x^2 - y^2 = 34$ is _____.

- A. $\{(7, \sqrt{15})\}$
B. $\{(\sqrt{15}, 7)\}$
C. $\{7, \sqrt{15}\}$
D. $\{(7, 15)\}$

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X

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45. If $\log_{6\sqrt{6}} 216 = x$, then value of x is _____.

- A. 1
 B. 2
 C. 3
D. 5

46. If $2x - 5x + \frac{7}{2} + \frac{5}{2} > -9$, then value of x is _____.

- A. $x > -5$
B. $x < -5$
C. $x > 5$
 D. $x < 5$

47. The arithmetic mean of 15 values is 35. Upon checking, it was found that the data value 42 was incorrectly entered as 24. What is the corrected mean?

- A. 31.2
 B. 34.2
C. 36.2
D. 37.2

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48. Which of the following is a triangular number?

- A. 8
- B. 9
- C. 12
- D. 15

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49. The area of the triangle with measurements 5, 14, 13 is _____.

- A. $\sqrt{66}$
- B. $4\sqrt{66}$
- C. $8\sqrt{33}$
- D. 4

50. Sum of interior angles of hexagon is _____.

- A. 180°
- B. 360°
- C. 540°
- D. 720°

51. If $2x + 3y = 9$ and $xy = 2$, then the value of $8x^3 + 27y^3$ is _____.

- A. 324
- B. 405
- C. 729
- D. 1053

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52. Which of the following is a greatest number?

- A. 0.8^4
- B. $0.9^{\frac{1}{5}}$
- C. $0.7^{\frac{1}{2}}$
- D. 0.5^{50}

53. Two cars A and B are at 20 km apart. Car A is moving with a speed of 60 km/h towards car B, while car B is moving with a speed of 40 km/h moving away from car A. The distance between the two cars after 4 hours will be _____.

- A. 60 km
- B. 100 km
- C. 380 km
- D. 420 km

54. In a camp there were 50 persons having food sufficient for 15 days. After 2 days 15 more persons join the camp. For how many days the remaining food will be sufficient, if the quantity of the food taken by each person remains same.

- A. 8 days
- B. 10 days
- C. 15 days
- D. 18 days

55. Ahmed has three pieces of ribbon having lengths 24, 30 and 20 cm. He wants to cut these pieces in equal length with no piece remaining. Find the total number of pieces that he gets.

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- A. 22
- B. 25
- C. 37
- D. 47

$$24 + 30 + 20 \\ \frac{74}{3}$$

56. The surface area of the sphere is 55.44 cm². The diameter of the sphere is _____. (Take $\pi = 22/7$)

- A. 1.4
- B. 2.1
- C. 2.8
- D. 4.2

$$\pi r^2 \\ = \pi \left(\frac{d}{2}\right)^2$$

$$A = \pi r^2 \\ A = \pi \left(\frac{d}{2}\right)^2$$

$$rad = \frac{dia}{2}$$

$$A = \pi r^2 \\ 55.44 = \pi r^2 \\ 55.44 = \pi \left(\frac{d}{2}\right)^2 \\ 55.44 = \pi \left(\frac{74}{3}\right)^2$$

57. Evaluate $\left(1 - \frac{1}{5}\right) \times \left(1 - \frac{1}{6}\right) \dots \left(1 - \frac{1}{10}\right)$.

- A. $1/10$
- B. $1/5$
- C. $3/10$
- D. $2/5$

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58. Two years ago, the sum of ages of a mother and her daughter was 40 years. Find the present age of mother if 4 years ago, the age of mother was 8 times the age of her daughter.

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- A. 30 years
 - B. 32 years
 - C. 34 years
 - D. 36 years

Part Present future
 $(x + y = 40)$. age of mother = $8x$

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- Father has 50k. Find the share of 2 sons and 1 daughter according to Islamic rule?
- Diameter of Circle is 14cm. The radii make an angle of 90 at center. Find the length of radii?
- If $a+1/a = 6$ find the value of $a^3 + 1/a^3 = ?$
- A man took loan of 18000 with interest rate 5%. How much will he have to pay after 5 years?
- A father said to his son I was of your age when you were born. Father age is 50 now find the age of son? Also, after 5 years?
- A, B, C collectively invests money of 120000, 150000, 135000. The profit is 56700. Find the share of each person?
- Find a triangular number? Suppose we are given option 3, 5, 9, 15?
- If two cars are moving 60 degrees to each other. one moves at 40km/h while other moves at 20 Km/h. Find the distance between them after 90 minutes?
- In camp there were 50 persons having food sufficient for 15 days/After 2 days 15 more persons join the camp. For how many days the remaining food will be sufficient, if the quantity taken by each person remains same?
- Ahmed has three pieces of ribbon having lengths 24, 30, and 20 He wants to cut these pieces in equal length with no piece remaining. Find the total number of pieces that he gets.
- The arithmetic mean is 25 of 10 observations. On checking we found that number 21 was written wrong as 12 what is the correct arithmetic mean?
- Area of circle if the diameter is 14 and the radii is making an angle of 90 at center?
- 2 years ago, the sum of ages of mother and daughter was 40 years. Find the present age of Mother if 4 years ago the age of mother was 8 times the age of daughter?
- The area of rectangle field is 360000 sq units. the string required for fixing alongside as fences is how many units?
- Father has 50k. Find the share of 3 sons and 2 daughters according to Islamic rule?
- Find the area of triangle if the base is 30 cm and the other lengths are 20 cm and 10 cm.
- Find the area of cone if one slant height is 22 cm and altitude is 12 cm.
- If 15L milk has 80% purity and 5L milk has 57% purity, find the percentage of purity if they are mixed? Find the percentage of impurity also.
- The arithmetic mean is 25 of 10 observations. On checking we found that number 21 was written wrong as 12. Find the correct arithmetic mean?
- If a subset consists of the following numbers: -1, 0, 1.1, 2, 3 — the numbers are called? Rational numbers?
- From the equation $2x^2+5x+10$, find the value of $\alpha/\beta+\beta/\alpha$.

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22. Fatima gave $\frac{1}{3}$ stickers to a friend and $\frac{2}{5}$ to another friend. If she lost 5 stickers then what was the original number of stickers?
23. 28 is a perfect number?
24. In a milk shop 12 liters of milk is 70%. How much quantity of 100% pure milk should be added to make it 95% pure?
25. Area of $\frac{1}{4}$ th of a circle with radius 7 cm?
26. In a tournament 8 teams were playing. Each team must play one match with each other. How many matches?
27. The arithmetic mean of 10 values is 50. If -27 is added to the data, what is the new arithmetic mean?
28. The arithmetic mean of 15 numbers is 10. When two more values were added the new mean becomes 10. If one value is 4 more than the other, find the values of the two numbers.
29. What is the area of pavement 2-meter wide which is drawn inside a rectangular park of dimensions 16 by 20?
30. $2x + 3y = 9$, $xy = 2$. Then value of $8x^3 + 27y^3$?
31. If the sum of squares of 10 values is 390 and the sum of same values is $10\sqrt{14}$, what is the value of standard deviation?
32. If $f(x)$ is a straight line, then the range of function is which numbers?
33. Solution of equations $x^2 + y^2 = 64$ and $x^2 - y^2 = 34$
34. Which of the following is a triangular number? 8, 9, 12, 15
35. Which of the following is greatest number? $0.9\frac{1}{5}$, $0.7\frac{1}{2}$, 0.8^4 , 0.5^{50}
36. Two cars A and B are 20 km apart. Car A is moving with 60 km/h towards B and B with 40 km/h away from A. What is the distance between the two cars after 4 hours?
37. In a camp there were 50 persons having food for 15 days. After 2 days 15 more persons joined the camp. How many days the remaining food will be sufficient if the quantity of food taken by each person remains same?
38. Ahmed has 3 ribbons having length 24, 30, and 20 cm. He wants to cut these pieces in equal length with no piece remaining. Find the total number of pieces?
39. The surface area of a sphere is 55.4 cm^2 . The diameter of the sphere is?
40. How many different 3-person teams can be made from a group of 9 players?
41. If there are 20 people in the room and everyone shakes hands with each other once. How many handshakes are there?
42. 21 is the 15th value in the data from either side. Then the sum of values of data is?
43. The variance of data whose sum of square of 20 deviations from 14 (mean) is 38 is?
44. How many 3-digit numbers can be formed from the number 1024 if repetition is allowed?

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45. The mean of a given data is 16. And the variance is 4. Find out the standard deviation and coefficient of standard deviation.
46. The arithmetic mean of 15 values is 10. When more values are added to the data the new mean becomes 10. The value of 2 numbers is ___ if one number is 4 more than the other.
47. Intersection is a binary operation?
48. Difference of face value from place value of 5 in 4456
49. The equation $x^2+y^2= 1$ represents a circle?
50. A man invests Rs. 10000 in the bank to get an interest of Rs. 2200 in five years. Calculate the rate if simple interest?
51. What is the area of pavement 2m wide which is drawn by rectangular park of dimensions 16 by 20?
52. A rectangle's length is three times its width. If the perimeter is 64 cm, what is the width?
53. Amplitude of the function $6\sin(3x+5)$?
54. In an examination 200 students failed in English, 800 failed in Physics. If total 900 students failed in any subject, then how many failed in both?
55. A number exceeds another number by 5. The sum of numbers is 19. Find the smaller number.
56. The ratio of men to women in a class is 3:5, if the class has 24 people find the number of women?
57. Solve $27^{3n+1} \cdot 81^{-n+2} / 9^{n+5} \cdot 3^{3n-1}$
58. Abdullah gave Rs 135 to Umar. Umar takes rupees 65 from Ahmed. After all this they all have same amount. How much Abdullah has more than Umar?
59. If $a+b = 10$ and $a-b = 4$ then $2(a^2-b^2) = ?$
60. A certain number of balls were purchased for Rs.750. 5 more balls will be purchased if price of each ball is less by Rs. 12.5. The original number of purchased balls?
61. 3 partners invested Rs. 36000, 45000, 54000 respectively. Out of total profit of Rs. 37500 shares of third person are?
62. The population of a state increases annually at the rate of 15%. If its present population is 3000, find the population 2 years ago?
63. Sum of 1st 50 natural numbers and sum of first 50 whole numbers?
64. The graph of equation $x^2 + 2x + 3 = 8y$
65. The linear equation $3x = 10$ represents a ___ line?
66. The graph of function $y = -3x - 9$ has its wedge at?
67. The roots of the equation $x^2 + x + 1 = 0$ where ω is a cube root of 1?

68. The arithmetic mean of 10 values is 50. If -27 is added to the data, the new arithmetic mean is?
69. The ratio between the length of square base of two pyramids is 3:7. What is the ratio between their volumes if the two pyramids are of equal height?
70. The height of a tree was 4.8 m. After two years the height of the tree was increased by 12.5%. The new height of the tree after one year is? If the height increased with same ratio.
71. Abdullah gave Rs 50 to Umar and Umar gave Rs 65 to Ahmad. After this, all of them have the same amount of money. How much does Abdullah have more than Umar?
72. The sale price of the book is Rs. 855 with a loss of 5%. What is the purchase price?
73. Two lighthouses flash their lights every 20 seconds and 30 seconds respectively. If they flash together at 9 am, they will flash together again at?
74. Abdullah gave Umer Rs. 150... they all have equal amounts; how much more Abdullah has than Ahmed?
75. If $f(x) = 5af(x) = 5af(x) = 5a$, then it is called ____ function?
76. Rational numbers?
77. Irrational numbers?
78. Age problem: If father is 12 times the son's age, and after 5 years he is 6 times the son's age, what is father's age after 3 years?
79. Two lighthouses flash every 30s and 20s. If they flash together at 9:00 AM, when will they flash together again?
80. Linear equation $3x=10$ represents a ____ line on a graph?
81. If A: B = 5:7 and C: B = 5:7 then A: B:C =?
82. Sum of the external angles of a 5-sided polygon?

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From 2 Feb

- At what time, angle between the clock hands will be 70° ?
- No. of lines of symmetry of rectangle?
- $3x + 2y = 15$ and $6x + 7y = 65$, Find the value of x and y?
- Volume of cuboid with height 7, length 6 and breadth 4 cm?
- Standard deviation of data: 1, 3, 5, 7, 9, 11, 13?
- If $9x + 2y = 45$ and $6x + 4y = 30$ then value of $24x + 56y = ?$
- Value of $(1111)_2$ in decimal system?
- Product of face value of 6 and place value of 7 in 36870?
- Find the cordiality of set {1, 3, 5, 7, 9, ... 63}?

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- $x \in y = 11$ then domain of function $x + y = 11$?
- If

$$\frac{1}{3} + 2x - \frac{8}{15} < x + \frac{8}{5} + x - \frac{11}{3}$$

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- Find the marked price of article that is sold for Rs. 15,488 if 12% discount is given?
- If matrix A is 1×13 and matrix M is 10×11 then $MA = ?$
- LCM of 45, 18 and 27?
- If $\frac{1}{\alpha}$ and $\frac{1}{\beta}$ are roots of equation $3x^2 - 7x - 8 = 0$ then $\alpha + \beta = ?$
- Age of father is 4 times the age of son. 8 years ago, age of father was 10 times the age of son. The sum of ages of father and son after 2 years?
- Man goes from town A to B in two hours with speed 50 km/h. He comes back in 3 hours. Average speed of the total journey?
- Ahmed has Ropes 30, 372 and 670 lengths. He wants to cut in equal pieces of greatest length. Find the total no. of pieces?
- Two trains of length 245 m and 275 m long travelling in one direction at 90 and 51 km/h on parallel lines. How long train moving with 90 km/h passes the other train from time they meet each other?
- Two cars A and B moving on a track 5 km. Car A covers in 1 min and B in 1 min 15 sec. Find the time when car A is 5 laps ahead of B.
- Value of coefficient of variation for data whose mean is 15 and variance is 9?
- If A can finish a job in 14 days and both A and B in 18 days. How much time will B take?
- Probability that A will be alive after 5 years is 0.3 and B is 0.8. Find probability that either A or B will be alive after 5 years?
- Asad borrowed 30000 at the rate of 2.1% per annum. He agreed to give markup of 25200. After how many years will he be able to pay?

From 14 July

1. In the number 3.589 what is the position of number 9?
2. One was median question.
3. Which equation is polynomial.
4. If $a:b = 7:2$ and $a:c = 4:5$ find the value of $a:b:c$
5. If $f(x) = x^2 - 4$ then $f(x-1/x) = ?$
6. Find the area of triangle if the base is 5cm and the other lengths are 2cm and 10cm.
7. Find the area of sphere if the diameter is 7cm
8. Find the area of cone if one slant height is 5cm and altitude is 8 cm.
9. If 15 litres milk has 80% purity and 5 liters milk has 57% what is percentage of purity if

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they are mixed.

10. Find value of x if $5/x^2 - 4 + 1/x + 2 = 1/x - 2$
11. Sale price is 1955 and 15% profit. What is the cost price?
12. The arithmetic mean is 25 of 10 observations. On checking we found that number 21 was written wrong as 12 what is the correct arithmetic mean?
13. Fatima gave $1/3$ stickers to someone and $2/3$ stickers to her sister. If she lost 5 stickers what was the original number of stickers .
14. Find variance question. i don't remember the exact question.

15. If 3 breads and a dozen eggs cost 1200 and 5 breads and 2 dozen eggs cost 1980 what is the cost of a bread and 8 eggs.
16. Father son age question.
17. If the subset consists of -1, 0, 1.1, 2, 3 numbers what are the numbers called?
18. Which of the following is perfect number.
19. Which of the following is irrational number.
20. $(a+b)^2 = 4$ and $2ab = 3$ then value of $8(a^2+b^2) = ?$
21. Form the equation $2x^2+5x+10$ find the value of Alpha/beta + beta/alpha
22. Octa decimal, Hexa decimal
23. $|x-6| - 5 = 3|x-2|$

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Probability

1. A dice is rolled twice. The probability of getting doublets is?
2. Probability of occurring two heads in tossing on coin twice?
3. There were 20 boys and 10 girls in a class. What is the probability of selecting a girl or a boy a monitor?
4. Coin is tossed twice the possibility of getting doublets is?
5. A dice is rolled twice. The probability of getting doublets is?
6. A dice is rolled twice. The possibility of getting the sum of 6 is?
7. A dice is rolled twice. What is the possibility of getting same face on top?
8. 3 dices are rolled. Probability of getting sum of 3?

1. $(11011)^2$ value in decimal system

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2. Age of Rida 4 times the age of her son eight years ago age of Rida was 10 time the age of her son find the sum of age of Rida and her son.

3. Find sp if cp=15,000 and 12%profit

4. If car covers 13km in 1 litre how many distance will it cover in 13 litres

5. Lines of symmetry in hexagon

6. Cuboid volume with square base

7. Dice probability question

8. $\frac{1}{\alpha} + \frac{1}{\beta}$ then value of product of roots

9. Whole number domain system

10. Variance of data

11. $9x+21y=45$

$$27x+63y=?$$

12. Find angle between hand of clock at 5:00' clock

13. A complete work in 10 days and B in 5 days. If they work together, how many days required to complete same work?

14. If A takes 3000 from B and says he will return more 1320 with the rate 11%. What is the time in which he will return?

15. If train travelling 120km/s how much time will it take to cross a pole of 200m

16. No of elements in an inequality

17. Possible Solutions of an equation

$$18. 2x^3 - 1 = ?$$

19. Lcm of 12,15,48

20. If car A covers 5km in 1 minute, and car B cover it in 2 minutes. After how much time will car A be 5 laps ahead of car B?

$$21. x - \frac{7}{3} + x - \frac{7}{5} = \frac{16}{5}?$$

22. Product of place value of 3 and face value of 6?

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36. If $a + b = 10$ and $a - b = 6$, then the value of ab is _____.

- A. 16
- B. 32
- C. 48
- D. 64

37. The value of m in the ratio $3:m - 7 = 9:12$ is _____.

- A. -11
- B. -3
- C. 3
- D. 11

38. The linear equation $3x = 10$ represents a _____ line.

- A. horizontal
- B. oblique
- C. vertical
- D. y-axis

39. If $A:B = 5:7$ and $C:B = 5:7$ then $A:B:C =$ _____.

- A. 5:7:5
- B. 7:5:7
- C. 25:35:40
- D. 49:35:25

40. $38 - [36 - 2\{5 - 7 + 6\}] \div 4 =$ _____.

- A. $5/2$
- B. 7
- C. 31
- D. 32

41. If the cost of 2 hens and 3 goats is Rs. 47000 and cost of 5 hens and 1 goat is Rs. 20000. What is the cost of 1 hen?

- A. Rs. 1000
- B. Rs. 15000
- C. Rs. 16000
- D. Rs. 20000

42. Which of the following is a whole number?

- A. -10
- B. -3.5
- C. 0
- D. $5/7$

43. The quadratic equation with roots 3, 0 is _____.

- A. $x^2 + x = 0$
- B. $x^2 + x + 3 = 0$
- C. $x^2 + 3x = 0$
- D. $x^2 - 3x = 0$

44. Pipe A can fill a tank in 2 hours, pipe B can fill the tank in 1 hour 30 minutes, a pipe C can fill it in 2 hours 30 minutes and pipe D can fill in 1 hour 40 minutes. Which pipe is more efficient?

- A. A
- B. B
- C. C
- D. D

45. Abdullah gave Rs. 50 to Umar and Umar gave Rs. 65 to Ahmed. After this all of them have same money. How much Abdullah has more than Umar?

- A. Rs. 15
- B. Rs. 35
- C. Rs. 80
- D. Rs. 115



26. Factors of $x^3 + 4x^2 - 21x = 0$ are _____.

- A. -7, -3, 0
- B. -7, 3, 0
- C. -3, 7, 0
- D. 3, 7, 0

27. Two dice are rolled. What is the probability of getting same faces on top?

- A. $\frac{5}{36}$
- B. $\frac{1}{6}$
- C. $\frac{7}{36}$
- D. 1

28. Ahmed added two containers of paint containing 40 liters and 55 liters of paint. After using 49.3 liters in room and 34.7 liters in kitchen, how much paint is left?

- A. 10 liters
- B. 11 liters
- C. 12 liters
- D. 21 liters

29. If $f(x) = 5x$ then it is called _____ function.

- A. constant
- B. identity
- C. one-one
- D. quadratic

30. The sale price of a book is Rs. 856 with a profit of 7%. What is the cost price of book?

- A. Rs. 795
- B. Rs. 796.08
- C. Rs. 800
- D. Rs. 805

31. What is the volume of sphere whose radius is 10.5cm^3 ?
(Take $\pi = 22/7$)

- A. 4651 cm^3
- B. 4851 cm^3
- C. 5055 cm^3
- D. 38808 cm^3

32. Simplify $\frac{12}{5-2}$.

- A. 1
- B. 3
- C. 4
- D. 5

33. Car A is moving with a speed of 40km/h and car B is moving with a speed of 30km/h . What is their relative speed if they are moving in same direction?

- A. 10km/h
- B. 35km/h
- C. 50km/h
- D. 70km/h

34. If $f(x) = x^2 + 5kx + 70$ and $f(-2) = -6$ then value of k is _____.

- A. -8
- B. $-\frac{37}{5}$
- C. $\frac{37}{5}$
- D. 8

35. The additive inverse of 15 is _____.

- A. -15
- B. $-\frac{1}{15}$
- C. $\frac{1}{15}$
- D. 15

QUANTITATIVE REASONING

21. Number of lines of symmetry that can be passes through regular hexagon is _____.

- A. 1
- B. 2
- C. 3
- D. 6

22. The mode in the data 2, 3, 4, 4, 5, 6, 8, 8, 6, 5, 2, 3 is

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- A. 2
- B. 5
- C. 8
- D. No mode

23. What is the next term in the sequence 1, 2, 4, 7, 11, 16, 22, 29?

- A. 37
- B. 39
- C. 41
- D. 57

24. What is the angle between the hands of a clock at 6 O'clock?

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- A. 90°
- B. 120°
- C. 150°
- D. 180°

25. The mean value of first six natural numbers is _____.

- A. 2
- B. 2.5
- C. 3.5
- D. 15

QUANTITATIVE REASONING

21. A boy cycles for 4 hours with a speed of 6km/h and covers 9km by foot in 7 hours. The average speed of boy is _____.

- A. 3.0 km/h
- B. 3.5 km/h
- C. 7.3 km/h
- D. 8.25 km/h

$$S = \frac{15}{11}$$

$$\begin{array}{r} 1.4 \\ 11 \sqrt{15} \\ \underline{-11} \\ 4 \end{array}$$

22. There were 20 boys and 10 girls in a class. What is the probability of selecting a girl or a boy as a monitor?

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- A. $\frac{1}{30}$
 - B. $\frac{1}{3}$
 - C. $\frac{2}{3}$
 - D. 1 ✓

$$= \frac{36}{36}$$

23. The arithmetic mean of 10 values is 50. If -27 is added to data. Then new arithmetic mean is _____.

- A. 23
- B. 38.5
- C. 43
- D. 47.3

$$10 = 50$$

$$10 - 27 = 50$$

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24. An amount of Rs. 19000 was invested at a rate of 6% for 4 years on simple interested basis. The total amount in the bank account after 4 years is _____.

- A. Rs. 22000
- B. Rs. 23500
- C. Rs. 23560
- D. Rs. 80560

$$\begin{array}{r} 27 \\ 10 \\ \hline 17 \end{array}$$

25. The age of father is 4 times the age of his son. 3 years ago, the age of father was 5 times the age of his son. The present age of father is _____.

- A. 10 years
- B. 24 years
- C. 48 years
- D. 60 years

$$\begin{aligned} F &= 4S \\ F - 3 &= (S - 3)S \\ 4S - 3 &= SS - 3S \end{aligned}$$

$$26. [24 - 32 \div \{41 - 25\} - 2 \times 8] + 3 = \underline{\hspace{2cm}}$$

- A. -3
B. 0
C. 6
D. 9

$$\left[24 - 2 - 2 \times 8 \right] + 3$$

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$$\left[24 - 2 - 18 \right] + 3$$

$$\left(\frac{41}{25} \right)$$

27. Calculate the area of a right triangle, whose base length is 5cm and length of hypotenuse is 13cm.

- A. 30 cm^2
B. 32.5 cm^2
C. 60 cm^2
D. 65 cm^2

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$$\left[24 - 20 \right] + 3$$

$$3 \times 4$$

$$(4+3) = 7$$

$$\frac{25}{16}$$

28. If $m + n + p = 8$ and $m^2 + n^2 + p^2 = 20$, then the value of $mn + np + mp = \underline{\hspace{2cm}}$.

- A. -12
B. 12
C. 22
D. 44

29. If $(x + 2)$ is a factor of $3x^2 - 4kx - 4k^2$, then the value of k is $\underline{\hspace{2cm}}$.

- A. -3
B. -1
C. 1
D. 2

$$12 + 8R - 4k^2 =$$

$$12 + 2(4R - 2k)$$

30. Solution of the equation $\sqrt{5x - 6} - \sqrt{x + 10} = 0$ is $\underline{\hspace{2cm}}$.

- A. -4
B. 0
C. 4
D. 8

$$\frac{n}{\{n-1\}}$$

$$\begin{matrix} 23 \\ 15 \\ 38 \end{matrix}$$

$$\begin{matrix} 20 \\ 38 \\ 10 \end{matrix}$$

$$20 \times 18$$

31. To increase the tourism the government has to construct a road of 86 kms long. 39 kms of the road is in rocky area and it costs Rs. c per km and rest part of the road is on plane area and its cost of construction is Rs. d per kilometer. Find the total cost of road.

- A. $39/c + 47/d$
- B. $86c - 47d$
- C. $39c + 47d$
- D. $43 cd$

32. At what time, the angle between the hands of clock is 100° ?

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- A. 4:03
- B. 5:10
- C. 6:10 ✗
- D. 7:20 ✓

33. Which of the following is an integer number?

- A. ✓ -15
- B. 0.5
- C. $17/8$
- D. $\sqrt{179}$

34. Calculate area of $1/4$ th of a circle with radius 7cm
(Take $\pi = 22/7$)

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- A. 19.25 cm^2
- B. ✓ 38.5 cm^2
- C. 77 cm^2
- D. 154 cm^2

35. Calculate the volume of cone whose height is 3cm and radius of base is 3.5cm. (Take $\pi = 22/7$)

- A. 33.0 cm^3
- B. 38.5 cm^3
- C. 99.0 cm^3
- D. ✓ 113.8 cm^3

42. $2x + 5y = -kx$, if $x = 2$ and $y = -1$ then value of k is _____.

- A. -2
- B. $\frac{1}{2}$
- C. 2
- D. 3

43. The range of the data 3, 5, 4, 6, 9, 17, 12, 15 is _____.

- A. 03
- B. 05
- C. 14
- D. 20

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44. Write the statement in the form of equation, "subtract 8 from 4 times a number to get -6".

- A. $-4x + 8 = 6$
- B. $4x - 8 = 6$
- C. $-4x + 8 = -6$
- D. $4x - 6 = -8$

45. The range of $f(x) = \frac{x^2 - 5}{x + \sqrt{5}}$ is _____.

- A. $\{\sqrt{5}\}$
- B. real numbers - $\{-2\sqrt{5}\}$
- C. real numbers - $\{\sqrt{5}\}$
- D. real numbers - $\{0\}$

32. The average of first ten whole numbers is _____.

- A. 3.5
- B. 4.0
- C. 4.5
- D. 5.5

33. The mode in the data 3, 6, 9, 5, 6, 9, 9, 5, 16, 5, 8, 11, 9, 10 is _____.

- A. 5
- B. 6
- C. 8
- D. 9

34. Sum of external angles of a 5-sided polygon is _____.

- A. $90^\circ(2n - 4)$
- B. $180^\circ(n - 2)$
- C. 360°
- D. cannot determined without actual value of n

35. A man covers some distance in 2 hours. Had he move slower by 4 km/h, he will cover the same distance in 6 hours. Find the speed of man.

- A. 4.5 km/h
- B. 6 km/h
- C. 9 km/h
- D. 13.5 km/h

36. The height of a tree was 4.8 m. After two years the height of the tree was increased by 12.5%. The new height of tree after one year is _____ if the height increased with same ratio.

- A. 0.6 m
- B. 5.1 m
- C. 5.4 m
- D. 6.0 m

37. $1 \cdot 16 + 2^7 \cdot 2^8 =$ _____.

- A. 2^6
- B. 3×2^5
- C. 3×2^5
- D. 7×2^6

38. The sum of angles of 6-sided figure is _____.

- A. 360°
- B. 600°
- C. 720°
- D. 1080°

39. The amplitude of function $6\sin(3x + 5)$ is _____.

- A. $-5/3$
- B. -5
- C. 06
- D. 2n

40. If $x^3 - 2x^2 - 5x + 16$ is divided by $2x - 6$ then remainder is _____.

- A. -14
- B. 0
- C. 10
- D. 15

41. The sum of the place and face value of 6 in number 54689 is _____.

- A. 0
- B. 594
- C. 600
- D. 606

QUANTITATIVE REASONING

21. The graph of the equation $x^2 + 2x + 3 = 8y$ is _____.

- A. down
- B. left
- C. right
- D. up

2. Two lighthouses flash their lights every 20 seconds. They will flash together again at _____.

- A. 9:00:50
- B. 9:01:00
- C. 9:10:00
- D. 9:15:45

Ahmed can do a work in 4 days whereas Umar can do the same work in 5 days and Ahsan can do it in 20 days. They can do the work in _____ days if all of them work together.

- A. 01
- B. 02
- C. 03
- D. 20

Which of the following is a whole number?

- A. -2
- B. $\frac{2}{5}$
- C. $\frac{5}{3}$
- D. 5

If $\tan A = \frac{5}{4}$ then $\cot B = \text{_____}$.

- A. $\frac{4}{5}$
- B. $\frac{5}{4}$
- C. 4
- D. 5

26. Which of the following is a perfect number?

- A. 24
- B. 26
- C. 28
- D. 32

27. The mean of 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2 is _____.

- A. 0
- B. 02
- C. 10
- D. 20

28. The graph of the function $y = |3x - 9|$ has its wedge at _____.

- A. -9
- B. -3
- C. 03
- D. 07

29. Which of the following is an irrational number?

- A. 1.345345345...
- B. $\sqrt{5}$
- C. 18.33333333
- D. 35

30. The sale price of a T-shirt is Rs. 660 with a profit of 10%. The cost price of shirt is Rs. _____.

- A. 550
- B. 600
- C. 620
- D. 700

1. The age of a father is 12 times the age of his son. After 5 years the age of father is 6 times the age of his son. The age of father after 3 years is _____.

- A. 40 years
- B. 47 years
- C. 50 years
- D. 53 years

QUANTITATIVE REASONING

21. The graph of the equation $x^2 + 2x + 3 = 8$ is _____.
- A. down
B. left
C. right
D. up
22. Two lighthouses flash their lights every 20 seconds. They will flash together again at _____.
- A. 9:00:50
B. 9:01:00
C. 9:10:00
D. 9:15:45
23. Ahmed can do a work in 4 days whereas Umar can do the same work in 5 days and Ahsan can do it in 20 days. They can do the work in _____ days if all of them work together.
- A. 01
B. 02
C. 03
D. 20
- Which of the following is a whole number?
- A. -2
B. $\frac{2}{5}$
C. $\frac{5}{3}$
D. 5
- If $\tan A = \frac{5}{4}$ then $\cot B =$ _____.
- A. $\frac{4}{5}$
B. $\frac{5}{4}$
C. 4
D. 5
24. Which of the following is a perfect number?
- A. 24
B. 26
C. 28
D. 32
25. The mean of 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2 is _____.
- A. 0
B. 02
C. 10
D. 20
26. The graph of the function $y = |3x - 9|$ has its wedge at _____.
- A. -9
B. -3
C. 03
D. 07
27. Which of the following is an irrational number?
- A. 1.345345345...
B. $\sqrt{5}$
C. 18.33333333
D. 35
28. The sale price of a T-shirt is Rs. 660 with a profit of 10%. The cost price of shirt is Rs. _____.
- A. 550
B. 600
C. 620
D. 700
29. The age of a father is 12 times the age of his son. After 5 years the age of father is 6 times the age of his son. The age of father after 3 years is _____.
- A. 40 years
B. 47 years
C. 50 years
D. 53 years

D. $\frac{a}{9}$

34. Sum of external angles of a 5-sided polygon is _____.

- A. $90^\circ(2n - 4)$
- B. $180^\circ(n - 2)$
- C. 360°
- D. cannot be determined without actual value of n

35. A man covers some distance in 2 hrs. slower by 4 km/hr. than another man covers the same distance in 1 hr. Then the speed of the first man is _____.

- C. 06
- D. $2n$

36. If $x^3 - 2x^2 - 5x + 16$ is divided by $2x - 6$ then remainder is _____.

- A. -14
- B. 0
- C. 10
- D. 15

..... of 6 in number

34. The roots of the equation $x^2 + x + 1 = 0$ are _____.
 (Where w is a cube root of 1).

- A. $1, w, w^2$
- B. w, w^2
- C. $1, w^2$
- D. $1, w$

$$x^2 + 1x - x + 1 \quad \text{Hungaricum}$$

$$x(x+1) - 1(x+1) \quad 8 \\ (x-1)(x+1) \quad 16$$

35. Number 5 in 94.60572 is at _____ place.

- A. hundredths
- B. ones
- C. tenths
- D. thousandths

Hungaricum

$$x=1$$

$$\begin{array}{r} 30 \\ 8 \\ \hline 240 \end{array}$$

36. In a tournament 8 teams were playing. Each team has to play one match with every other team. The total number of matches that were played are _____. 11

- A. 25
- B. 28
- C. 56
- D. 64

$$30 \times 8 - \frac{11}{2} \times 2 \quad 16 \\ = 240 - 110 \quad 240 \\ \frac{110}{130} \quad \frac{110}{110}$$

37. A dice is rolled twice. The probability of getting a sum of 6 on dice is _____

- A. $1/36$
- B. $1/18$
- C. $5/36$
- D. $1/6$

$$360$$

$$330$$

$$130$$

$$-$$

Hungaricum

$$\frac{n(n+1)}{2} = \frac{n(n-1)}{2}$$

38. What is the angle between the hands of clock at 20 minutes to 8 O'clock?

$$240 \\ 110 \\ \hline 130 \\ 0 \\ 600 \\ 110$$

- A. 5°

- B. 10°

- C. 15°

- D. 20°

$$30 - 8 - \frac{11}{2} \times M \quad 490 \\ 240 - 110 = \frac{8(7)}{2} \quad - 366 \\ \hline 130 \quad 21$$

21. 19. A certain number of balls were purchased for Rs. 750. Five more balls will be purchased with the same amount if price of each ball is less by Rs. 12.5. The original number of purchased balls is Hungaricum.

- A. 10
- B. 15
- C. 20
- D. 50

$$20 - 1 = 9 - 15 - 70$$

$$50 - 1 = 6 - 70$$

$$\begin{array}{r} 70 \\ 6 \\ \hline 64 \end{array}$$

$$\begin{array}{r} 75 \\ - 15 \\ \hline - 85 \end{array}$$

30. If $f(x) = x^2 + 5kx - 70$ and $f(-3) = -1$ then value of k is _____.

- A. $-62/15$
- B. -4
- C. 4
- D. $62/15$

Hungaricum

$$-1 = 9 - 15 - 70$$

$$= 9 - 85$$

$$= \frac{85}{76}$$

$$-85$$

$$\frac{9}{76}$$

31. Abdullah gave Rs. 135 to Umar, and Umar takes Rs. 65 from Ahmed. After this all of them have same amount of money. How much Abdullah has more than Ahmed?

- A. Rs. 65
- B. Rs. 70
- C. Rs. 265
- D. Rs. 335

$$\begin{array}{r} 135 \\ 65 \\ \hline 70 \end{array}$$

$$S = \frac{d}{t}$$

$$S = \frac{1}{t}$$

32. A man moves from town A to town B in 8 hours.

Coming back from B to A he moves faster by 10 km/h and reach to town A in 7 hours. What is the distance from town A to B?

- A. 56 km
- B. 420 km
- C. 560 km
- D. 1120 km

$$\begin{array}{r} 160 \\ 16 \\ \hline 84 \end{array}$$

33. If $a + b = 10$ and $a - b = 4$, then the value of $2(a^2 - b^2)$ is _____.

- A. 20
- B. 40
- C. 60
- D. 80

$$(a+b)^2 - (a-b)^2 = 62 - 1 + 61$$

$$-3 = 1 - 5R - 10$$

$$\begin{array}{r} 69 \\ 3 \\ \hline 66 \end{array}$$

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44. What is the next term in the sequence - 2, 0, 18, 108, 486, _____.

- A. 1856
- B. 1890
- C. 1924
- D. 1944

$$\left(\frac{112}{108} \times 75 \right) \begin{array}{l} \text{Hungaricum} \\ \underline{75} \\ 1560 \\ 784 \times \end{array}$$

45. The cost of a book is Rs. 750 with a profit of 12%.
What is the sale price of 2 such books?

- A. Rs. 700
- B. Rs. 840
- C. Rs. 1680
- D. Rs. 1690

$$\left(\frac{750+12}{112} \left(\frac{112}{108} \times 75 \right) \right) \begin{array}{l} \varphi = E \cdot \Delta A \\ = \\ \left(\frac{600}{112} + 750 \right) \\ \left(\frac{112}{11} \times 75 \right) \end{array}$$

$$\begin{array}{r} 112 \\ \times 6 \\ \hline 672 \end{array}$$

$$\begin{array}{r} 112 \\ \sqrt{75600} \\ 672 \\ \hline 180 \end{array}$$

$$\begin{array}{r} 486 \\ \times 112 \\ \hline 486 \\ 486 \\ \hline 5372 \end{array}$$

$$A^{37}$$

$$\begin{array}{r} 112 \\ \sqrt{184} \\ 112 \\ \hline 72 \\ 72 \\ \hline 0 \end{array}$$

39. The mean score of ten students in a test is 49. If one more student is added, then the mean score of students become 50. Find the score of the last student.

- A. 10
 - B. 50
 - C. 60
 - D. 62

$$\frac{x}{10} = 49 \quad \text{Hungaricum} \quad 11 \sqrt{491}$$

$$x = 490$$

11 491

40. $3\log_{10}5 + \log_{10}24 - \frac{1}{2}\log_{10}9 = \underline{\hspace{2cm}}$.

- A. 2
B. 3 ✓
C. 100
D. 1000

55

$$\begin{array}{r} 360 \\ - 130 \\ \hline 230 \end{array}$$

D. 100
Hungaricum

360

$$\frac{18}{8} \text{ } ^{\circ}\text{C}$$

41. Simplify $\frac{\sqrt{25}}{2\sqrt{2} - \sqrt{3}}$.

$$\begin{array}{r} \cancel{30} \times 8 - \cancel{\frac{11}{2}} \times \cancel{2}^{\cancel{10}} \\ \hline \end{array}$$

- A. $2\sqrt{2} + \sqrt{3}$
 B. $-2\sqrt{2} + \sqrt{3}$
 C. $-2\sqrt{2} - \sqrt{3}$
 D. $2\sqrt{2} - \sqrt{3}$

$$240 - 110 \quad \underline{130}$$

42. The number of triangles formed inside a polygon is equal to the number of octagons formed inside the polygon. Then the number of sides of polygon are

- A. 5
B. 10
C. 11
 D. 22

$$30 \times 8 - \frac{11}{2} \times 20 = 240 - 110 = 130$$

$$(10-2) \times 180 = 8 \times 180 = 1440$$

43. Ahmed travelled 400 km in 5 hours, then he cycles for 4 hours with a speed of 5 km/h and walks for 1 hour with a speed of 2km/h. What is the average speed of Ahmed during the whole journey?

- A. 29 km/h
B. 30 km/h
~~C. 32 km/h~~
D. 45 km/h

240 - 11°

246

360

160

website

8
16

24

240

25. Pipe A can fill a tank in 2 hours, pipe B can fill the tank in 1 hour 30 minutes, a pipe C can fill it in 2 hours 30 minutes and pipe D can fill in 1 hour. What is the time in which tank will be full only when two pipes are opened?

2 hr

- A. 18 minutes ✓
- B. 36 minutes ✓
- C. 54 minutes ✓
- D. 150 minutes ✓

$\frac{60}{60} = 1$

1 hr . 30

$\frac{120}{120} = 1$

2 hr . 30

1

26. Ahmed and Fahad together have Rs. 1210. If $6/15$ of Ahmed's amount is equal to $3/5$ of Fahad's amount, how much amount does Ahmed have?

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- A. Rs. 450
- B. Rs. 484
- C. Rs. 720
- D. Rs. 726 ✓

$$5 \sqrt{1210}$$

$$\begin{array}{r} 245 \\ -10 \\ \hline 210 \\ -20 \\ \hline 10 \\ -10 \\ \hline 0 \end{array}$$

$$= \frac{3}{5} \times 1210 = 245$$

27. The sum of, sum and product of roots of the equation $3x^2 + 7x - 1 = 0$ is _____.

- A. $-8/3$ ✓
- B. -2
- C. 2
- D. $8/3$ ✓

$$3 \sqrt{245}$$

$$= \frac{6 \times 1210}{18} = \frac{7}{3} + \frac{1}{3}$$

$$\frac{1210}{245}$$

Hungaricum

28. The sum of two numbers is 25 and their difference is 75 the ratio of two numbers is _____.

- A. $-1:2$ ✓
- B. $1:2$ ✓
- C. $1:3$ ✓
- D. $13:6$ ✓

$$\frac{1210}{490} = \frac{245}{2} = \frac{6}{15} - \frac{3}{5}$$

$$\frac{6}{15} \times 1210 = \frac{3}{5}$$

$$x + y = 25$$

$$x - y = 75$$

$$25 : 75$$

$$\begin{array}{r} 25 \\ 13 \\ \hline 75 \\ 75 \\ \hline 00 \\ 10 \\ \hline 490 \\ 490 \\ \hline 00 \end{array}$$

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$$515,5 \times 3$$

$$\frac{6 \times 3 \times 5}{15}$$

QUANTITATIVE REASONING

What is the volume of the cone whose base radius is 3cm and slant height is 5cm?

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- A. 5π
- B. 8π
- C. 12π
- D. 15π



22. $\frac{27^{3n+1} \cdot 81^{-n+2}}{9^{n+5} \cdot 3^{3n-1}} = \underline{\hspace{2cm}}$.

- A. 1
- B. 3
- C. 9
- D. 27

Hungaricum

23. Car A is moving with speed of 60 km/h and car B is moving with a speed of 80 km/h in the same direction. What is the distance between them after 3 hours if they started at the same point?

- A. 20 km
- B. 60 km
- C. 180 km
- D. 240 km

$$d = 140 \times t (3)$$

=

Hungaricum

24. $\{38 - [35 - 2(5 + 7 - 6)]\} \div 3 + 1 = \underline{\hspace{2cm}}$.

- A. 4
- B. 5
- C. 6
- D. 32

$$\begin{aligned} &= \frac{1}{3} \pi r^2 h \\ &= \frac{1}{3} \times \frac{22}{7} \times 9^2 \times 5 \text{ cm}^3 \\ &= 130 \end{aligned}$$

39. The mean score of ten students in a test is 49. If one more student is added, then the mean score of students become 50. Find the score of the last student.

- A. 10 ✓
- B. 50 ✓
- C. 60
- D. 62 ✓

$$\frac{x}{10} = 49 \quad \text{Hungaricum}$$

$$x = 490$$

40. $3\log_{10}5 + \log_{10}24 - \frac{1}{2}\log_{10}9 = \underline{\hspace{2cm}}$.

- A. 2 ✓
- B. 3 ✓
- C. 100 ✓
- D. 1000

Hungaricum

$$\begin{array}{r} 360 \\ 130 \\ \hline 230 \end{array}$$

41. Simplify $\frac{\sqrt{25}}{2\sqrt{2} - \sqrt{3}}$.

- A. $2\sqrt{2} + \sqrt{3}$ ✓
- B. $-2\sqrt{2} + \sqrt{3}$
- C. $-2\sqrt{2} - \sqrt{3}$
- D. $2\sqrt{2} - \sqrt{3}$

$$30 \times 8 - \frac{11}{2} \times 20$$

$$240 - 110 \quad \begin{array}{r} 240 \\ 110 \\ \hline 130 \end{array}$$

42. The number of triangles formed inside a polygon is equal to the number of octagons formed inside the polygon. Then the number of sides of polygon are

- A. 5
- B. 10 ✓
- C. 11
- D. 22

$$30 \times 8 - \frac{11}{2} \times 20 \quad \begin{array}{r} 240 \\ 110 \\ \hline 130 \end{array}$$

$$(10-2) \times 180 \quad \begin{array}{r} 11 \times 180 \\ \hline 160 \end{array}$$

$$(n-8) \times 180$$

43. Ahmed travelled 400 km in 5 hours, then he cycles for 4 hours with a speed of 5 km/h and walks for 1 hour with a speed of 2 km/h. What is the average speed of Ahmed during the whole journey?

- A. 29 km/h
- B. 30 km/h
- C. 32 km/h
- D. 45 km/h

$$240 - 110$$

$$240$$

$$\begin{array}{r} 360 \\ 160 \\ \hline 520 \end{array} \quad \begin{array}{r} 8 \\ 16 \\ 24 \\ \hline 240 \end{array}$$

Hungaricum

Car A is moving with speed of 60 km/h and car B is moving with a speed of 80 km/h in the same direction. What is the distance between them after 3 hours if they started at the same point?

- A. 20 km
- B. 60 km
- C. 180 km
- D. 240 km

$$d = 140 \times t (3)$$

= 6

Hungaricum

21
291

QUANTITATIVE REASONING

27. The multiplicative inverse of $-5/6$ is _____.

- A. $-5/6$
- B. $-6/5$
- C. $5/6$
- D. $6/5$

28. 75% of what number is 51?

- A. 38.25
- B. 68
- C. 100
- D. 136

29. The cost of 6 books is Rs. 968. The cost price of 3 books is _____.

- A. Rs. 161.333
- B. Rs. 322.667
- C. Rs. 484
- D. Rs. 4840

30. $32 - [36 - 2\{5 \times 2 + 7 - 6\}] = \text{_____}.$

- A. -14
- B. 2
- C. 14
- D. 18

31. What is the next term in the sequence 3, 7, 12, 18, 25,

33, _____.

- A. 38
- B. 39
- C. 40
- D. 42

42. What is the angle between the hands of a clock at 9 o'clock?

- A. 0°
- B. 60°
- C. 90°
- D. 120°

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43. In a scalene triangle _____.

- A. all angles are different in measure
- B. all angles are same in measure
- C. every angle is of 90°
- D. two angles are same in measure

44. A dice is rolled twice. The probability of getting doublets is _____.

- A. $1/36$
- B. $1/18$
- C. $1/9$
- D. $1/6$

45. The value of x in the linear equation $\frac{3x - 4}{2} - \frac{x}{4} = \frac{13}{6}$ is _____.

- A. $-50/3$
- B. $-10/3$
- C. $10/3$
- D. $50/3$

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46. Find the quadratic equation whose roots are 1 and 2.

- A. $x^2 - 3x + 2$
- B. $x^2 - 3x - 2 = 0$
- C. $x^2 - 3x + 2 = 0$
- D. $x^2 - 2x + 3 = 0$

53. Which of the following is a perfect number?

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- A. 24
- B. 26
- C. 28
- D. 32

54. The sale price of a book is Rs. 858 with a loss of 5%. What is the cost price of a book?

- A. Rs. 870
- B. Rs. 900
- C. Rs. 910
- D. Rs. 993

Hungaricum

55. Abdullah gave Rs. 60 to Umar and Umar gave Rs. 90 to Ahmed. After this, all of them have same money. How much more Umar has than Ahmed?

- A. Rs. 30
- B. Rs. 60
- C. Rs. 90
- D. Rs. 120

56. The average of first ten whole numbers is _____.

- A. 3.5
- B. 4.0
- C. 4.5
- D. 5.5

Hungaricum

57. What amount is invested in the bank to get a profit of Rs. 3500 at a rate of 7% for 4 years?

- A. 10000
- B. 12500
- C. 15000
- D. 16500

21. A boy cycles for 4 hours with a speed of 6km/h and covers 9km by foot in 7 hours. The average speed of boy is _____.

- A. 3.0 km/h
- B. 3.5 km/h
- C. 7.3 km/h
- D. 8.25 km/h

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D. $\frac{9}{9}$

34. Sum of external angles of a 5-sided polygon is

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- A. $90^\circ(2n - 4)$
- B. $180^\circ(n - 2)$
- C. 360°
- D. cannot be determined without actual value of n

35. A man covers some distance in 2 hrs slower by 4 km/hr.

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36. If $a + b = 10$ and $a - b = 6$, then the value of ab is

- A. 16
- B. 32
- C. 48
- D. 64

37. The value of m in the ratio $3:m - 7 = 9:12$ is

- A. -11
- B. -3
- C. 3
- D. 11

25. If the cost of 2 copies and 3 books is Rs. 1300 and cost of 5 copies and 1 book is 2600. Find the cost of a copy and a book.

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- A. Rs. 100
- B. Rs. 500
- C. Rs. 600
- D. Rs. 50000

26. Abdullah gave Rs. 150 to Umar and Umar take Rs. 65 to Ahmed. After this all of them have same money. How much more Abdullah has than Ahmed?

- Hungaricum
- A. Rs. 30
 - B. Rs. 35
 - C. Rs. 85
 - D. Rs. 215

27. Ahmed added to containers of paint containing 40 liters and 55 liters of paint. After using 49 liters in room and 34 liters in kitchen, how much paint is left?

- A. 7 liters
- B. 12 liters
- C. 21 liters
- D. 22 liters

28. If $f(x) = 5a$ then it is called _____ function.

Hungaricum

- A. constant
- B. identity
- C. one-one
- D. quadratic

29. The quadratic equation with roots 2, -3 is _____.

- A. $x^2 - x + 6$
- B. $x^2 + x + 6 = 0$
- C. $x^2 + x - 6 = 0$
- D. $x^2 - x - 6 = 0$

QUANTITATIVE REASONING

21. The graph of the equation $x^2 + 2x + 2 = 8/x$ is _____.

- A. down
- B. left
- C. right
- D. up

22. Two lighthouses flash their lights every 30 seconds respectively. If they flash together at 30 seconds, they will flash together again at _____.

- A. 9:00:50
- B. 9:01:00
- C. 9:10:00
- D. 9:15:45

3. Ahmed can do a work in 4 days whereas Umar can do the same work in 5 days and Ahsan can do it in 20 days. They can do the work in _____ days if all of them work together.

- A. 01
- B. 02
- C. 03
- D. 20

Which of the following is a whole number?

- A. -2
- B. $2/5$
- C. $5/3$
- D. 5

If $\tan A = 5/4$ then $\cot B =$ _____.

- A. $4/5$
- B. $5/4$
- C. 4
- D. 5

4. Which of the following is a perfect number?

- A. 24
- B. 30
- C. 32
- D. 36

5. The mean of 2, 2, 2, 2, 2, 2, 2, 2, 2, 2 is _____.

- A. 0
- B. 63
- C. 12
- D. 20

6. The graph of the function $y = |3x - 9|$ has its wedge at _____.

- A. -9
- B. -3
- C. 03
- D. 07

7. Which of the following is an irrational number?

- A. 1.345345345...
- B. $\sqrt{5}$
- C. 18.33333333
- D. 35

8. The sale price of a T-shirt is Rs. 600 with a profit of 10%. The cost price of shirt is Rs. _____.

- A. 550
- B. 600
- C. 620
- D. 700

9. The age of a father is 12 times the age of his son. After 5 years the age of father is 6 times the age of his son. The age of father after 3 years is _____.

- A. 40 years
- B. 47 years
- C. 50 years
- D. 53 years

QUANTITATIVE REASONING

21. Number of lines of symmetry that can be passes through regular hexagon is _____.

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- A. 1
- B. 2
- C. 3
- D. 6

22. The mode in the data 2, 3, 4, 4, 5, 6, 8, 8, 6, 5, 2, 3 is _____.

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- A. 2
- B. 5
- C. 8
- D. No mode

23. What is the next term in the sequence 1, 2, 4, 7, 11, 16,
22, 29?

- A. 37
- B. 39
- C. 41
- D. 57

24. What is the angle between the hands of a clock at
6 O'clock?

- A. 90°
- B. 120°
- C. 150°
- D. 180°

25. The mean value of first six natural numbers is _____.

- A. 2
- B. 2.5
- C. 3.5
- D. 15

QUANTITATIVE REASONING

Green
White
Blue
Pink

21. The graph of the equation $x^2 + 2x + 3 = 8y$ is concave _____.
- down
 - left
 - right
 - up
22. Two lighthouses flash their lights every 20 seconds and 30 seconds respectively. If they flash together again at _____.
They will flash together again at _____.
- 9:00:50
 - 9:01:00
 - 9:10:00
 - 9:15:45
23. Ahmed can do a work in 4 days whereas Umar can do the same work in 5 days and Ahsan can do it in 20 days. They can do the work in _____ days if all of them work together.
- 01
 - 02
 - 03
 - 20
- Which of the following is a whole number?
- 2
 - $\frac{2}{5}$
 - $\frac{5}{3}$
 - 5
- If $\tan A = \frac{5}{4}$ then $\cot B =$ _____.
- $\frac{4}{5}$
 - $\frac{5}{4}$
 - 4
 - 5
24. The mean of 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2 is _____.
- 24
 - 26
 - 28
 - 32
25. Which of the following is a perfect number?
- 0
 - 02
 - 10
 - 20
26. The graph of the function $y = |3x - 9|$ has its wedge at _____.
- 9
 - 3
 - 03
 - 07
27. Which of the following is an irrational number?
- 1.345345345...
 - $\sqrt{5}$
 - 18.33333333
 - 35
28. The sale price of a T-shirt is Rs. 660 with a profit of 10%. The cost price of shirt is Rs. _____.
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 - 600
 - 620
 - 700
29. The age of a father is 12 times the age of his son. After 5 years the age of father is 6 times the age of his son. The age of father after 3 years is _____.
- 40 years
 - 47 years
 - 50 years
 - 53 years

25. If the cost of 2 copies and 3 books is Rs. 1300 and cost of 5 copies and 1 book is 2600. Find the cost of a copy and a book.

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- A. Rs. 100
- B. Rs. 500
- C. Rs. 600
- D. Rs. 50000

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- Hungaricum
- A. Rs. 30
 - B. Rs. 35
 - C. Rs. 85
 - D. Rs. 215

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- A. 7 liters
- B. 12 liters
- C. 21 liters
- D. 22 liters

28. If $f(x) = 5a$ then it is called _____ function.

- A. constant
- B. identity
- C. one-one
- D. quadratic

29. The quadratic equation with roots 2, -3 is _____.

- A. $x^2 - x + 6$
- B. $x^2 + x + 6 = 0$
- C. $x^2 + x - 6 = 0$
- D. $x^2 - x - 6 = 0$

QUANTITATIVE REASONING

Hungaricum

21. The value x in the linear equation

$$\frac{3x}{2} - \frac{x-2}{3} = 2$$

- A. -3
- B. -5
- C. 3
- D. 5

22. Pipe A can fill a tank in 30 minutes and pipe B can fill the tank in 50 minutes. In how much time the tank will be full if both pipes open together?

- A. 18 minutes
- B. 18 minutes 45 seconds
- C. 30 minutes
- D. 80 minutes

23. The sale price of a book is Rs. 630 with a profit of 25%. What is the cost price of book?

- A. Rs. 595
- B. Rs. 600
- C. Rs. 610
- D. Rs. 661

Hungaricum

24. If $f(x) = x^2 + 5kx + 70$ and $f(-3) = 4$ then value of k is

- A. -5
- B. -47/5
- C. 5
- D. 47/5

40. What is the supplement of 65° ?

- A. 25°
- B. 35°
- C. 115°
- D. 125°

Hungaricum

41. Car A is moving with speed 40 km/h and car B is moving with a speed of 30 km/h in opposite directions. What is their relative speed?

- A. 10 km/h
- B. 35 km/h
- C. 50 km/h
- D. 70 km/h

42. $38 - [36 - 2\{5 - 7 + 6\}] = \underline{\hspace{2cm}}$.

- A. 10
- B. 14
- C. 24
- D. 86

43. Simplify $\frac{\sqrt{54}}{\sqrt{3}\sqrt{2}}$.

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- A. $\sqrt{3}$
- B. 3
- C. $\sqrt{6}$
- D. 6

44. If $A:B = 5:7$ and $C:B = 7:11$ then $A:B:C = \underline{\hspace{2cm}}$.

- A. 49:45:77
- B. 35:55:66
- C. 55:77:49
- D. 49:55:77

35. The measure of the smallest angle of the heptagon, if its angles are in the ratio 2:3:5: 6:7:4:3. (Where sum of angles of heptagon is 900°)

Hungaricum

- A. 30°
- B. 60°
- C. 90°
- D. 120°

36. If $a + b = 10$ and $a - b = 6$, then the value of ab is

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- A. 16
- B. 32
- C. 64
- D. 128

37. What is the angle between the hand of a clock at 6:00?

- A. 85°
- B. 90°
- C. 180°
- D. 205°

Hungaricum

38. The additive inverse of -3 is _____.

- A. -3
- B. $-1/3$
- C. $1/3$
- D. 3

39. The value of m in the ratio $3: m - 7 = m - 7: 12$ is _____.

- A. -1, -13
- B. -1, 13
- C. 1, -13
- D. 1, 13

30. The mode in the data 2, 3, 4, 4, 5, 6, 8, 8, 6, 5, 2, 3, 8 is _____.

- A. 2
- B. 5
- C. 8
- D. 9

Hungaricum

31. The mean value of the data 3, 6, 9, 12, 15, 18 is _____.

- A. 8.5
- B. 9
- C. 10.5
- D. 12

32. What is the next term in the sequence 1, 2, 4, 7, 11, 16, 22, 29, _____.

- A. 34
- B. 35
- C. 37
- D. 39

33. A coin is tossed twice. The probability of getting doublets is _____.

- A. $1/4$
- B. $1/2$
- C. $3/4$
- D. 1

Hungaricum

34. Factors of $x^2 + 4x - 21 = 0$ are _____.

- A. -7, -3
- B. -7, 3
- C. -3, 7
- D. 3, 7

42. $2x + 5y = -kx$, if $x = 2$ and $y = -1$ then value of k is _____.

- A. -2
- B. $\frac{1}{2}$
- C. 2
- D. 3

43. The range of the data 3, 5, 4, 6, 9, 17, 12, 15 is _____.

- A. 03
- B. 05
- C. 14
- D. 20

Hungaricum

44. Write the statement in the form of equation, "subtract 8 from 4 times a number to get -6".

- A. $-4x + 8 = 6$
- B. $4x - 8 = 6$
- C. $-4x + 8 = -6$
- D. $4x - 6 = -8$

45. The range of $f(x) = \frac{x^2 - 5}{x + \sqrt{5}}$ is _____.

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- A. $\{\sqrt{5}\}$
- B. real numbers - $\{-2\sqrt{5}\}$
- C. real numbers - $\{\sqrt{5}\}$
- D. real numbers - $\{0\}$

Questions that came in USAT, 5 November 2023, Sunday

- (i) $125\% \cdot 400 + x\% \cdot 125 = 425$, value of $x = ?$ Hungaricum?
- (ii) $i^{2/3} = ?$
- (iii) Age Question \rightarrow father and son
- (iv) angle between hands of clock at 25 minutes of 4'0 clock.
 $2:3:4:5:7:9:10$
- (v) Hexagon angle ratio given ~~1:2:2:1:3~~, we had to tell which angle is the greatest. Hungaricum
- (vi) Team matches question, like how many matches will happen if there are 10 teams.
- greatest
(vii) factor of 9 and 42 and
- (viii) $-1 + 1 + 35 + 31 + 61 + 65 + 127 + 121 + \dots ?$ Hungaricum
- (ix) $\cos\left(\frac{\pi}{4}\right) = ?$ what is its period.
- (x) 80% pure milk and there is 100% pure milk, how much ^{this} milk should be added that milk to make it 90% pure.
- (xi) $\lim_{x \rightarrow 0} \frac{\sin^2 5x}{25x^2} = ?$
- (xii) $\int \frac{x^2}{x^2+1} dx = 0 ?$
- (xiii) $y^2 + 2y + 3 = -x \Rightarrow$ which shape is this
(a) circle (b) hyperbola
(c) parabola (d) ellipse Hungaricum

$$\frac{dy}{dx} = ? \quad \text{&} \quad y = e^{2x} - 5$$

$$a+b+c=5, \text{ then } a^3+b^3+c^3=? \quad \text{Hungaricum}$$

(vii) Car A is moving towards Car B, Car B speed is 42 Km/h
Car A speed is 90 Km/h, the distance b/w them is
150 Km, & I don't remember the rest.

(viii) Two lighthouse flashes light, one at 30 sec and one
at 45 second, ~~then~~ they flashed at 7:58:00, now
at what time next they will again flash together
Hungaricum

(ix) A pyramid with square base of 6 cm and length of
8 cm what is its Area?

(x) → In class ten Girls are $\frac{1}{4}$ of Boys, if 40%
of ~~the~~ Boys ~~were~~ and half of Girls has submitted
the Assignment

→ Instruction Register stores → **Hungaricum**

→ ~~██████████~~ https:// - URL is

→ At 36 hours, how many times the hands of clock
met each other.

→ number which not include ~~certain~~'s number like
2, 3, 7 and greater than 80000, came from Ex 7.2, or 7.3
I guess at class 11.

→ $8^{3n} - 2$ is divisible by 5

37. The equation $x^2 + y^2 = 1$ represents

- A. parallelogram
- B. ellipse
- C. circle
- D. trapezoid

Hungaricum

38. Which of the following measures does NOT form a triangle?

- A. 5, 6, 7
- B. 6, 6, 10
- C. 5, 5, 12
- D. 15, 25, 34

39. What is the range in the data 2, 7, 9, 13, 2, 8, 2, 11, 13, 14, 18?

- A. 11
- B. 13
- C. 14
- D. 18

40. $\sqrt{2} - \sqrt{3} =$ _____.

- A. $2\sqrt{5}$
- B. $\sqrt{15}$
- C. $\sqrt{11}$
- D. $\sqrt{7}$

Hungaricum

41. The sum of exterior angles of a regular octagon is

- A. 30°
- B. 45°
- C. 360°
- D. 1080°

QUANTITATIVE REASONING

27. $\log_2 2 \times \log_3 3 = \underline{\hspace{2cm}}$.

- A. 0
- B. 1
- C. 2
- D. 3

Hungaricum

28. The number of 5-digit numbers, that can be formed from the digits 4, 3, 5, 7, 9 is .

- A. 60
- B. 120
- C. 140
- D. 180

Hungaricum

29. The arithmetic mean of 15 numbers is 10. When 3 more values are added to the data the new arithmetic mean becomes 10. The value of two numbers is _____ if one number is 4 more than other.

- A. 7, 11
- B. 4, 16
- C. 8, 12
- D. 9, 13

30. Which of the following is a binary operation? Hungaricum

- A. 4throot
- B. Cube
- C. Intersection
- D. Square

31. The value of x in the equation $\frac{x}{5} - \frac{1}{2} = \frac{5x+1}{6} + \frac{1}{3}$ is

- A. -3
- B. -3/2
- C. 3/2
- D. 3

Q. 1. Two angles whose sum is 90° are called _____.
Hungaricum

- A. complementary
- B. right
- C. vertical
- D. supplementary

Hungaricum

Q. 2. What is the area of a pavement 2-meter wide which is enough to cover a rectangular park of dimensions 16 by 12 m? _____.

- A. 32 m^2
- B. 3.2 m^2
- C. 3.24 m^2
- D. 324 m^2

Hungaricum

Q. 3. The difference of face value from place value of 5 in 35.555 is _____.

- A. -45.5
- B. -4.5
- C. 0
- D. 45.

Q. 4. The cost of 6 bats and 3 balls is Rs. 4500 and cost of 3 bats and 6 balls is Rs. 3600. The cost of one bat and a ball is _____.

- A. Rs. 300
- B. Rs. 600
- C. Rs. 750
- D. Rs. 900

Q. 5. If $f(x) = 3x^2 - 2x + 3$, then value of $f(\sqrt{2})$ is _____.

- A. 2
- B. 3
- C. $\sqrt{13}$
- D. 13

22. The ratio between the length of square base of two pyramids is 3 : 7. What is the ratio between their volumes if the two pyramids are of equal height?

Hungaricum

- A. 27
- B. 9:49
- C. 27:343
- D. 81:1729

23. $\frac{3}{2} \times [(50 - 30 \times 2) + 5(15 - 13)] + 5 = \text{_____}$

- A. 3
- B. 5
- C. 10
- D. 11

Hungaricum

24. The cost price of 8 suits is Rs. 13400. What is the cost price of such 5 suits?

- A. Rs. 8000
- B. Rs. 8275
- C. Rs. 8375
- D. Rs. 8425

25. The sale price of an article is Rs. 3597 with a profit of 9%. The cost price of article is _____.

- A. Rs. 310.50
- B. Rs. 3197.33
- C. Rs. 3250
- D. Rs. 3300

Hungaricum

26. Pipe A can fill a tank in 45 minutes. If both pipes A and B are opened the tank is full in 15 minutes. In how much time tank will be full if pipe B is opened?

- A. 20 minutes
- B. 22.5 minutes
- C. 30 minutes
- D. 35.5 minutes

43. The arithmetic mean of 3, 8, 9, 9 is _____.

- A. 4
- B. 5
- C. 7
- D. 10

Hungaricum

44. 80% of which number is 45?

- A. 8.1
- B. 55.50
- C. 56
- D. 56.25

Hungaricum

45. The total surface area of a trapezoid base having dimensions' length = 3, width = 6 and height = 15 is _____ Sq units.

- A. 156
- B. 186
- C. 198
- D. 216

46. Which of the following is a rational number?

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- A. π
- B. 1.252729...
- C. 7.323232...
- D. $\sqrt{27}$

47. The sum of, sum and product of roots of equation $3x^2 - 7x + 15 = 0$ is _____.

- A. 8/3
- B. 5
- C. 22/3
- D. 35/3

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46. The number of terms in the expression $x^2 + y^2$ is _____.
- A. 3
B. 4
C. 5
D. 8
47. Hungaricum
48. Car A is moving with a speed of 50 km/h towards which is moving away from car A with a speed of 10 km/h. What is the relative speed of two cars?
- A. 40 kms
B. 70 kms
C. 90 kms
D. 140 kms
49. Hungaricum
50. Convert the ratio $21/30$ into percentage.
- A. 21%
B. 42%
C. 70%
D. 85%
51. The age of mother is 3 times the age of her daughter. Six years ago, the age of mother was 5 times the age of her daughter. The age of mother after two years is _____.
- A. 32 years
B. 36 years
C. 38 years
D. 40 years
52. Hungaricum
- A boy travels 210 kms on a train in 3 hours. The boy travels 30 kms in one hour by bus. The average speed of boy for whole journey is _____.
- A. 50 km/h
B. 55 km/h
C. 60 km/h
D. 70 km/h

53. Two angles whose sum is 90° are called angles.

Hungaricum

- A. complementary
- B. right
- C. obtuse
- D. supplementary

54. What is the area of a pavement 8 meters wide which is drawn inside a rectangular park of dimensions 10 by 20?

- A. 35 m^2
- B. 37 m^2
- C. 128 m^2
- D. 160 m^2

Hungaricum

55. The difference of face value from place value of 8 in 7956 is _____.

- A. -405
- B. -45
- C. 0
- D. 45

56. The cost of 6 bats and 3 balls is Rs. 4500 and cost of 3 bats and 6 balls is Rs. 3600. The cost of one bat and a ball is _____.

- A. Rs. 300
- B. Rs. 600
- C. Rs. 750
- D. Rs. 900

57. If $f(x) = 3x^4 - 2x^2 + 7$ then value of $f\left(\sqrt[3]{x}\right)$ is _____.

- A. 2
- B. 3
- C. $\sqrt{15}$
- D. 15

21. If the order of matrix A is 4×6 and order of matrix M is 6×4 , then order of matrix MA is _____.

- A. 4×4
B. 4×6
C. 6×4
D. 6×6

22. Number of lines of symmetry in decagon is _____.

- A. 5
B. 10
C. 20
D. 40

23. Asad borrowed Rs. 300,000 at the rate of 18% per annum and agreed to give markup of Rs. 90,000. After how many years will he be able to repay the money?

- A. 1 year 2 months
B. 1 year 5 months
C. 1 year 8 months
D. 2 years 3 months

24. What is the value of coefficient of variation for the data whose mean is 24 and variance is 9?

- A. 12.5%
B. 37.5%
C. 500%
D. $800/3\%$

25. If $\frac{1}{\alpha}$ and $\frac{1}{\beta}$ are the roots of the equation $ax^2 - bx + c = 0$

, then value of $a\beta$ is _____.

- A. $-b/a$
B. $-c/a$
C. a/c
D. b/c

26. If A and B can finish the job in 6 days. In how many days B alone can finish the job?

- A. 8 days
B. 12 days
C. 15 days
D. 18 days

27. Solution of the inequality $\frac{1}{3} + \frac{2x-8}{15} > \frac{5x+8}{5} + \frac{3x-11}{3}$ is _____.

- A. $x < -1$
B. $x > -1$
C. $x < 1$
D. $x > 1$

28. At what time the angle between the hands of clock is 100° ?

- A. 1:20
B. 2:30
C. 4:40
D. 6:50

29. A man goes from town A to town B in 2 hours with a speed 60 km/h and come back in three hours. What is the average speed of his total journey?

- A. 30 km/h
B. 48 km/h
C. 50 km/h
D. 60 km/h

30. The equations $3x + 7y = 15$ and $9x + 21y = 35$ have _____ solution(s).

- A. no
B. one
C. two
D. infinite

31. If $9x + 21y = 45$ and $x + 4y = 30$, then value of $4x + 10y = \underline{\hspace{2cm}}$.

- Hungaricum
A. 15
B. 30
C. 45
D. 75

32. The value of standard deviation of the data 5, 8, 11, 14, 17 is $\underline{\hspace{2cm}}$.

- Hungaricum
A. 5
B. 18
C. $2\sqrt{3}$
D. $3\sqrt{2}$

33. What is the cardinality of the set $\{1, 3, 5, 7, 9, \dots, 31\}$?

- Hungaricum
A. 10
B. 15
C. 16
D. 31

34. The value of the number $(1011)_2$ in decimal system is $\underline{\hspace{2cm}}$.

- Hungaricum
A. 17
B. 23
C. 27
D. 29

35. The volume of cylinder with height 7 and radius of base 2 is $\underline{\hspace{2cm}}$. (Take $\pi = 22/7$)

- A. 88 cubic units
B. 176 cubic units
C. 264 cubic units
D. 352 cubic units

36. Solution of the equation $\frac{3x-7}{5} + \frac{2x-7}{3} = \frac{41}{12} + \frac{2x-1}{15}$ is $\underline{\hspace{2cm}}$.

- Hungaricum
A. $x = -25/4$
B. $x = -25/3$
C. $x = 25/3$
D. $x = 25/4$

37. Which of the following is the LCM of 235, 94 and 47?

- Hungaricum
A. 370
B. 470
C. 570
D. 940

38. The age of father is 4 times the age of his son. Five years ago, the age of father was 7 times the age of his son. The sum of ages of son and his father after 2 years is $\underline{\hspace{2cm}}$.

- Hungaricum
A. 44
B. 48
C. 50
D. 54

39. The probability that A will alive after 5 years is 0.4 and the probability that B will alive after 5 years is 0.8. The probability that B will alive and A will dead after 5 years is $\underline{\hspace{2cm}}$.

- Hungaricum
A. 0.32
B. 0.48
C. 0.60
D. 0.88

40. Ahmed has three ropes of length 456, 190 and 532. He wants to cut them in equal pieces of greatest length. The total number of pieces he will have $\underline{\hspace{2cm}}$.

- Hungaricum
A. 6
B. 31
C. 62
D. 589

13 July Quantitative MCQs

1. $(11011)_2$ value in decimal system
 2. Age of Rida is 4 times the age of her son. Eight years ago, age of Rida was 10 times the age of her son. Find the sum of the ages of Rida and her son.
 3. Find SP if CP = 15,000 and 12% profit
 4. If a car covers 13 km in 1 liter, how much distance will it cover in 13 liters?
 5. Lines of symmetry in a hexagon
 6. Cuboid volume with square base
 7. Dice probability question
 8. $1/\alpha + 1/\beta$, then value of product of roots
 9. Whole number domain system
 10. Variance of data
 11. $9x + 21y = 45$
 $27x + 63y = ?$
 12. Find the angle between the hands of a clock at 5:00
 13. A completes work in 10 days and B in 5 days. If they work together, how many days are required to complete the same work?
 14. If A takes 3000 from B and says he will return 1320 more at the rate of 11%, what is the time in which he will return?
 15. If a train is traveling at 120 km/h, how much time will it take to cross a pole of 200 m? Hungaricum
 16. Number of elements in an inequality
 17. Possible solutions of an equation
 18. $2 \times 3 - 1 = ?$
 19. LCM of 12, 15, 48
 20. If car A covers 5 km in 1 minute, and car B covers it in 2 minutes, after how much time will car A be 5 laps ahead of car B?
 21. $(x - 7)/3 + (x - 7)/5 = 16/5$
 22. Product of place value of 3 and face value of 6
- 1) A certain number of tennis balls was purchased for Rs. 900. If each ball had cost 30 Rupees cheaper, it would have been possible to buy 5 more balls for the same amount. How many balls were bought? Downloaded from the 'Hungaricum' website

2) If $a - (1/a) = -5$ then value of $a^2 + (1/a^2) + 100$ is?

3) What must be added to (y/x) to make it (x/y) ? Hungaricum

4) Question related to Pavement

5) Question related to inheritance according to Islamic Laws

6) Median Question

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7) Arithmetic Means

8) $(0.89 \times 0.89 \times 0.89) + (0.211 \times 0.211 \times 0.211) + (9 \times 0.89 \times 0.211)$

9) Angle between hand of clock

10) They tell us that 3 person invest x , y and z amount of money and then they got some(combined) profited so what's the y individual profit? Hungaricum

11) Simple Interest Question

12) Abdullah gave Rs. 400 to Umair and Umair take 900 from Bilal so how much more money Abdullah have than Umair

13) When two dice are rolled what is probability of getting depletes?

14) Father is 2 times old as his son. Ten years ago, he is 3 times as old as his. What is the sum after 2 years (I do not remember this question please help me solve this question) Downloaded from the Hungaricum website

Q.1) If the average weight of 5 girls is 20 kg; that of 3 girls is 15 kg, and that of the other 2 girls is 25 kg; then the average weight of all girls is-

Hungaricum

- (A) 19.5 kg
- (B) 11.5 kg
- (C) 16.5 kg
- (D) 15 kg

Q.2) A man goes to the market from his house and returns house from the market at speeds of 10 km/hr and 15 km/hr respectively. Find out his average speed?

Hungaricum

- A) 12 km/hr
- B) 15 km/hr
- C) 14 km/hr
- D) 13 km/hr

Q.3) A card is drawn from the set of 52 cards. Find the probability of getting a queen card.

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- A. 1/13
- B. 1
- C. 1/26
- D. 1/52

Q.4) There are 7 purple clips and 5 brown clips. Two clips are selected one by one without replacement. Find the probability that the first is brown and the second is purple.

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A) 35/132

B) 1/32

C) 1/132

D) 35/144

E) None of these

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Q.5) A sum of money is to be distributed among A, B, C, D in the proportion of 5: 2: 4: 3. If C gets Rs. 1000 more than D, what is B's share?

A) 2000

B) 4000

C) 1500

D) 500

Q.6) Set $A = \{x / x \in \mathbb{N} \wedge x \geq 1 \leq 100\}$

how many possible subsets could be made from set A having only 3 elements?

A) 161700

B) 970200

C) 667500

D) none of them

Hungaricum

07) A rectangular field has its length and breadth in the ratio of 8:7. A man riding a bicycle complete one lap of this field along its perimeter at the speed of 28.8 km/hour in 2.5 minutes what is the area of the field?

A) 89600

B) 88600

C) 93600

D) 99690

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08) 11, 13, 17, 25, 32, the next term of the sequence?

A)37

B)33

C)40

Hungaricum

D) 53

09) In a party every person shakes hands with every other person. If there was a total of 105 handshakes in the party, find the number of persons who were present in the party.?

A)15 Hungaricum

B)17

C)25

D)12

10) Two dice are thrown. Find the probability of getting an odd number on the one die and a multiple of three on the other.

Hungaricum

A) 1/6

B) 1/3

C) 3/4

D) 1/18

Q.11) How many arrangements are possible in word "INDORE" if all vowels come together

A)144

B)162

C)120

D)81

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Q.12) In a group of 6 boys and 4 girls, 4 children's to be selected such that at least one boy must be there

- A)209
- B)120
- C)720
- D)109

Hungaricum

Q.13) Price of sugar is increased by 25%, find how much % it consumption to reduce

- A)20%
- B)25%
- C)45% Hungaricum
- D) no change

Q.14) In an examination a student must get 60% to pass. If a student who get 120 marks but fails by 60 marks. Find the total marks

- A)300
- B)350
- C)250
- D)260

Hungaricum

Q.15) Muneeb covers a distance at 60% of its usual speed. Therefore, reaches there 36 minutes late. Find his usual time.

- A) 54
- B) 90
- C)45
- D) 36

Q.16) Sabir and ~~Sohail~~ brothers. Sohail is 4 years older than Shabir. The product of their ages is 1221. Find the Sabir age

A)37

B)33

C)45

D)35

Hungaricum

1. In the number 3.589 what is the position of number 9?
2. One was median question.
3. Which equation is polynomial.
4. If $a:b = 7:2$ and $a:c = 4:5$ find the value of $a:b:c$
5. If $f(x) = x^2 - 4$ then $f(x-1/x) = ?$
6. Find the area of triangle if the base is 5cm and the other lengths are 2cm and 10cm.
7. Find the area of sphere if the diameter is 7cm
8. Find the area of cone if one stand height is 5cm and other stand height is 8 cm.
9. If 15litres milk has 80% purity and 5 liters milk has 57% what is percentage of purity if they are mixed together.
10. Find value of x if $5/x^2 - 4 + 1/x + 2 = 1/x - 2$
11. Sale price is 1955 and 15% profit. What is the cost price.
12. The arithmetic mean is 25 of 10 observations. On checking we found that number 21 was written wrong as 12 what is the correct arithmetic mean?
13. Fatima gave $1/3$ stickers to someone and $2/3$ stickers to her sister. If she lost 5 stickers what was the original number of stickers.
14. Find variance question. I don't remember the exact question.
15. If 3 breads and a dozen eggs cost 1200 and 5 breads and 2 dozen eggs cost 1980 what is the cost of a bread and 8 eggs.
16. Father's son age question.
17. If the subset consists of -1, 0, 1.1, 2, 3 numbers what are the numbers called?
18. Which of the following is perfect number.
19. Which of the following is irrational number.

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28th Jan USAT Test

Hungaricum

34.Division of place value of 5 in 3857 with 2 becomes

- A.250
- B.100
- C.150
- D.200

35.Find the range of the given measurements

- A.76 Hungaricum
- B.66
- C.56
- D.1
- E.-1

36.Sum of the interior angles of pentagon

- A.540
- B.360
- C.720
- D.120

Hungaricum

37. $\log 2 \ 28 \times \log 5 \ 25 - \log 3 \ 81$

- A.3
- B.5
- C.7
- D.4

38. Volume of pyramid having rectangular base of length 10-meter, width 9 and height of 7
(may be the given measurements are incorrect)

Hungaricum

39. What is the angle b/w hour and minute hands of a clock at 08: 20

- A. 130
- B. 150
- C. 230
- D. 360

Hungaricum

40. The name of Charlie Chaplin has.... a symbol of laughter.

- A. became
- B. become
- C. becomes
- D. becoming

Hungaricum

41. How many words can be made by arranging alphabets in various sequence from word "PARK"

- A. 24 (correct)
- B. 12
- C. 19
- D. 17

A director's total salary is sum of his rent charges, deposits and expenditure. During one month his deposits is equal to expenditure which is $\frac{2}{3}$ of rental charges. What fraction of his total income saves in deposits?

- A. $\frac{4}{9}$
- B. $\frac{5}{4}$
- C. $\frac{5}{8}$
- D. $\frac{2}{7}$

Hungaricum

Rina & Rohit are playing a game, Rina writes down all the natural numbers from 1 to 100, then Rohit has to calculate how many times does she write four?

- A. 11
- B. 18
- C. 20
- D. 21

Hungaricum

An airplane starts from country X. The no. of males in the airplane is thrice of the no. of females. In country Y, six females enter and 10 males leave the airplane at country W. Now, no. of males & females is equal. How many persons entered in the airplane from the beginning?

- A. 15
- B. 30
- C. 36
- D. 32

Hungaricum

Q.1) If the average weight of 5 girls is 20 kg; that of 3 girls is 15 kg, and that of the other 2 girls is 25 kg; then the average weight of all girls is-

- (A) 19.5 kg
- (B) 11.5 kg
- (C) 16.5 kg
- (D) 15 kg

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Q.2) A man goes to the market from his house and returns house from the market at speeds of 10 km/hr and 15 km/hr respectively. Find out his average speed?

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- A) 12 km/hr
- B) 15 km/hr
- C) 14 km/hr
- D) 13 km/hr

Q.3) A card is drawn from the set of 52 cards. Find the probability of getting a queen card.

A. 1/13

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B. 1

C. 1/26

D. 1/52

Hungaricum

Q.4) There are 7 purple clips and 5 brown clips. Two clips are selected one by one without replacement. Find the probability that the first is brown and the second is purple.

A) 35/132

B) 1/32

C) 1/132

D) 35/144

E) None of these

Q.5) A sum of money is to be distributed among A, B, C, D in the proportion of 5 : 2 : 4 : 3. If C gets Rs. 1000 more than D, what is B's share?

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A)2000

B)4000

C)1500

D)500

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Q.6) Set A={ $x/x \in \mathbb{N} \wedge x \geq 1 \leq 100$ }

how many possible subsets could be made from set A having only 3 elements?

A) 161700

B) 970200

C) 667500

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D) none of them

07)A rectangular field has its length and breadth in the ratio of 8:7. A man riding a bicycle complete one lap of this field along its perimeter at the speed of 28.8 km/hour in 2.5 minutes what is the area of the field?

A)89600

B)88600

C)93600

D)99690

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08) 11, 13, 17, 25, 32, ? the next term of the sequence?

A)37

B)33

C)40

D) 53

09)In a party every person shakes hands

with every other person. If there was a total of 105

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handshakes in the party, find the number of persons who

were present in the party.?

- A)15
- B)17
- C)25
- D)12

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10) Two dice are thrown. Find dthe probability of getting an odd number on the one die and a multiple of three on the other.

- A) 1/6
- B) 1/3
- C) 3/4
- D) 1/18

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Q.11)How many arrangements are possible in word "INDORE" if all vowels comes together

- A)144
- B)162
- C)120
- D)81

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Q.12) In a group of 6 boys and 4 girls, 4 childrens to be selected such that at least one boy must be there

- A)209
- B)120
- C)720
- D)109

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Q.13) Price of sugar is increased by 25%, find how much % it consumption to reduce

A)20%

B)25%

C)45%

D) no change

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Q.14) In an examination a student must get 60% to pass. If a student who get 120 marks but fails by 60 marks. Find the total marks

A)300

B)350

C)250

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D)260

Q.15) Muneeb covers a distance at 60% of it's usual speed. Therefore reaches there 36 minutes late. Find his usual time.

A) 54

B) 90

C)45

D) 36

Hungaricum

Q.16) Sabir and Shakir are brothers. Sabir is 4 years older than Shakir. The product of their ages is 1221. Find the sabir age

A)37

B)33

C)45

D)35

Q.1) If the average weight of 5 girls is 20 kg; that of 3 girls is 15 kg, and that of the other 2 girls is 25 kg; then the average weight of all girls is-

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(A) 19.5 kg

(B) 11.5 kg

(C) 16.5 kg

(D) 15 kg

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- A) 89600
- B) 88600
- C) 93600
- D) 99690

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- D) 53

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- C) 25
- D) 12

10) Two dice are thrown. Find the probability of getting an odd number on the one die and a multiple of three on the other.

- A) $1/6$
- B) $1/3$
- C) $3/4$
- D) $1/18$

Hungaricum

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- C) 120
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Hungaricum

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27 April

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1. $2x+2y=11$ and $2x-y=7$, value of x and y?
2. Mother daughter age Qs.
3. If $6x^2-x-2$, $x=?$
4. Clock angle at 3:40?
5. Ahmed has three pieces of ropes having lengths 24, 30, and 20 He wants to cut these pieces in equal length with no piece remaining. Find the total number of pieces that he gets.
6. Find Median?
7. Binary Operation?
8. Find mean?
9. Find LCM
10. Pipe Qs.
11. Faces of dice?
12. $f(x)=x^2-2$, $f(x+1/x)=?$
13. If one car moving north at 30km/h while other moves west at 40 Km/h. Find the distance between them after 4 hours minutes?
14. $|x-5| = 7$, $x=?$
15. $f(x)=\sqrt{x^2+25}$, find function?
16. $f(x)=\sqrt[3]{x^3}$, find domain?
17. Quotient of place value to face value...
18. Which is a Triangular number?
19. Which numbers Don't form a triangle?
20. A man covers some distance in 4hours. If he move faster by 5km/h he would have covered the same distance in 3 hours. Find the distance?

21. Perimeter of semi circle when radius=7cm?
22. Number if elements in a set (1,3,5.....17) Hungaricum
23. Find value if x from $7x-2/4 = -14x+25/2$
24. Find variance of data: 2,3,4,5,8,9,10.

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