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Mathematics for G.P. Rating

Number System

Even Numbers: Any number that **can** be divided by 2 is called Even Number. Even numbers end with 0,2,4,6 or 8.

Example: 12, 468, 896, 30, 654, 114

<u>Odd Numbers:</u>Any number that **cannot** be divided by 2 is called Odd Number. Odd numbers end with 1,3,5,7 or 9.

Example: 3, 17,451, 759, 35, 873

Prime Numbers: A number that can only be divided by 1 and itself.

Example: 2,3,5,7,11,13,17,19,23,29,31,37,41,43

- 1 is not a prime number.
- Smallest prime number is 2

Face Value of a digit: The face value of a number is its own exact value.

Place value of a digit: Local value of a digit is the value a digit holds in a number.

Example: In number 5823, Face value of 5 = 5, 8 = 8, 2 = 2, and 3 = 3.

And the Place value of 5=5000, 8=800, 2=20 and 3=3

Numbers Divisible by 2: Any number which ends with 0,2,4,6 or 8 is divisible by 2

For example:

- 45698: This number ends with 8 that is why it is divisible by 2
- 398564: This number ends with 4 that is why it is divisible by 2
- 980230: This number ends with 0 that is why it is divisible by 2



- 26: This number ends with 6 that is why it is divisible by 2
- 562: This number ends with 2 that is why it is divisible by 2

Numbers Divisible by 3: If the sum of the digits of a number is divisible by 3, then that whole number is divisible by 3.

For example:

- 75684: The sum of its digits is (7+5+6+8+4=30). And 30 is divisible by 3. It means the full number 75684 is divisible by 3.
- 75683:The sum of its digits is (7+5+6+8+3=29). And 29 is not divisible by 3. It means the full number 75683 is not divisible by 3.

Numbers Divisible by 5: If the last digit of a number is either 0 or 5, then that number is divisible by 5.

For example:

- 75680: The last digit is 0, that is why 75680 is divisible by 5.
- 985: The last digit is 5, that is why 985 is divisible by 5.
- 63584: The last digit is 4, that is why 63584 is **not** divisible by 5.

Exercise for Number System

Example1. Write the number 65289 in words.

Answer:Sixty five thousand two hundred eighty nine.

Example2. Write the number 538945 in words.

Answer: Five lakhs thirty eight thousand nine hundred forty five

Example3. Write the number 29503 in words

Answer: Twenty nine thousand five hundred three

Example4. Write the number 900124 in words

Answer: Nine lakhs one hundred twenty four



Example5. What is the face value of digit "5" in number 704532?
Answer:Face value of digit "5" is 5.
Example6. What is the place value of digit "6" in number 963098?
Answer:Place value of digit "6" is 60000.
Example7. What is the place value of digit "3" in number 5623?
Answer:Place value of digit "3" is 3.
Example8. What is the face value of digit "9" in number 209536?
Answer:Face value of digit "9" is 9.
Example9. What is the place value of digit "4" in number 4623?

Answer: Place value of digit "4" is 4000.

Example10. What is the difference between Place value and Face value of digit "7" in number 867943?

Answer:Place value of "7" = 7000

Face value of "7" = 7

Difference = 7000-7 = 6993

Example11. What is the difference between Place values of digit "9" and "3" in number 689235?

Answer:Place value of "9" = 9000

Place value of "3" = 30

Difference = 9000-30 = 8970

Example12. What is the smallest Prime Number?

Answer:2

Example13. Is number 5632 divisible by 2?

Answer:Yes.



Its last number is 2. That is why it is divisible by 2.

Example14. Is number 2359 divisible by 2?

Answer:No

Its last number is 9, which is not divisible by 2.

Example15. Is number 6532 divisible by 3?

Answer:No.

6+5+3+2=16. As 16 is not divisible by 3, the number is not divisible by 3.

Example16. Is number 210432 divisible by 3?

Answer:Yes

2+1+0+4+3+2=12. As 12 is divisible by 3, the number is divisible by 3.

Example17. Is number 698535 divisible by 5?

Answer:Yes

The last digit of number is 5, that is why it is divisible by 5.

Example18. Is number 645741 divisible by 5?

Answer:No

The last digit is 1, that is why it is not divisible by 5.

Example19. How much we should add to 1256, so that it becomes divisible by 3?

Answer:2

1+2+5+6=13, 13 is not divisible. If we add 2, then 15 will be divisible by 3.

Example20. How much we should subtract from 62351 so that it becomes divisible by 3?

Answer:2

6+2+3+5+1=17. 17 is not divisible. If we subtract 2, then 15 will be divisible by 3.

Example21. If a number 25y513 is divisible by 3, then what is the value of y?



Answer: for a number to be divisible by 3, sum of its digits should be divisible by 3.

2+5+y+5+1+3 = Should be divisible by 3 2+5+5+1+3=16 16 is not divisible by 3, but 18 is divisible. Hence, 2+5+y+5+1+3 =18 So, **y=2**

Averages

Average = Sum of all Numbers / Total Numbers

Example22. Find the average of 32, 36 and 46

Answer:Sum of all numbers= 32+36+46 = 114

Total Numbers = 3

Average = 114/3 = 38

Example23. Age of Ramesh, Dinesh and Ram is 32 years, 36 years and 46 years. What is their average age?

Answer:Sum of their age is = 32+36+46=114

Their total count = 3

Average = 114/3 = 38 years.

Example24. What is the average of first 4 even numbers?

Answer: First 4 even numbers are: 2,4,6,8

Their total: 2+4+6+8=20

Total count: 4



Average=20/4 = 5

Example25. What is the average of first 4 odd numbers?

Answer: First 4 odd numbers are: 1,3,5,7

Their total: 1+3+5+7=16

Total count: 4

Average=16/4 = 4

Example26. Average income of a person for first 7 months is 110 Rs. and for next 5 months is 86 Rs.

What is his average income for full year?

Answer:100 Rs.

Average income = (Total income / Number of months)

Total Income = Average income X Number of months

Total income for first 7 months = 110 X 7 = 770

Total income for next 5 months = 86 X 5 = 430

Total income for 12 months = 770+430 = 1200

Average income for 12 months = 1200/12 = 100 Rs.

Their total: 2+4+6+8=20

Total count: 4

Average=20/4 = 5

Profit and loss

- **CostPrice**isthepriceatwhichanitemispurchased.
- SellingPriceisthepriceatwhichanitemissold.
- If the Selling Price is more than the Cost Price, then there is Profit.



- If selling price is less than cost price, then there is Loss.
- Profit=Selling Price-Cost Price
- Loss= CostPrice-SellingPrice
- **Profit % = (**Profit/Cost Price) X 100
- Loss % = (Loss/Cost Price) X 100

Example27. A book seller purchases a book for 110 rs and sells it for 123 rs. How much profit or loss he got?

Answer: Profit of 13 Rs. Cost price = 110 Rs Selling price = 123 Rs Profit = CP - SP = 123-110=13 Rs.

Example28. Raja buys a cycle for 1850 Rs and after some time sells it for 1752 Rs. How much Loss or Profit did he get?

Answer: Loss of 98Rs.

Cost price = 1850 RsSelling price = 1752 RsLoss = SP - CP = 1850-1752=98 Rs.

Example29. A person sells his book for 100 rs. and earns the profit of rs. 20. What percentage profit does he get?

Answer:25%

Selling price = 100, Profit = 20 CP=SP-Profit= 100-20 = 80 Profit% = (Profit/CP) X 100 = (20/80) X 100 = 25%

Example30. Ramesh purchases a radio for 200 Rs. and sells it for 160 Rs. What percentage loss does



he make?

Answer: 20%

Purchase price = 200 Selling price = 160 Loss=CP-SP = 200-160 = 40 Loss% = (Loss/CP) X 100 = (40/200) X 100 = 20%

Time and distance

- Speed=distance/time
- Time=distance/Speed
- Distance=(SpeedXTime)
- Formula to change Km/Hour to Meter/Second: (A km / Hour = Ax5/18 Meter / Second)
- To cross a man of a pole, a train travels a distance equal to its length.
- To cross a platform or an another train, the train travels a distance equal to its length and the length of the platform / another train.

Example31. A person walks with a speed of 3 Km / Hour. How much distance will he walk in 3 hours' time?

Answer: Distance = Speed X time = 3 X 3 = 9 Kilometers.

Example32. Ravi is cycling. He covers 12 Km distance in 3 Hrs. What is his speed?

Answer: Speed = Distance / Time = 12 / 3 = 4 Km / Hour

Example33. A child wants to reach his school which is 2 km away. If he walks with 1 Km / Hour speed, how much time will he take to reach his school?

Answer: Time = Distance / Speed = 2/1 = 2 Hours.

Example34. Ram is riding a bike and his speed is 54 Km / Hour. How much distance he will travel in 1



minute?

Answer: 900 Meters

(Hint: In this question first change speed from Km/Hour to Meter/Second)

Speed of the bike = 54 Km / Hour = 54X5/18 Meter / Second = 15 Meter / Second

1 minute = 60 second

Distance = Speed X Time = 15 X 60 = 900 Meter

Work and Time

Simple Rule for work and time questions:

- If "A" finishes a work in 10 days, it means the work of "A" in 1 day is 1/10.
- If 1-day work of "A" is 1/8, then "A" will finish full work in 8 Days.

Example35. Ravi completes a work in 12 days. How much works he does in 1 day?

Answer: 1-day work = **1/12**

Example36. Shaym can complete a work in 4 days. How much work he will do in 2 days?

Answer: 1-day work of shyam = 1/4

2 day work = 2 X (1 - day work) = 2 X (1/4) = 1/2

Example37. Ranjan completes 1/5 work in 1 day. How many days he will take to complete the full work?

Answer: 1-day work = 1/5

Total time to finish the work = **5 days**

Example38. Suresh completes 1/2 work in 4 days. How many days will he take to complete the full work?

Answer: 1/2 work in 4 days, it means full work in 2X4 = 8 days.

Example39. Raju completes a work in 6 days and Rohit completes that work in 12 days. If they both work together then how many days, they will take to complete the full work?

Answer: 1-day work of Raju = 1/6

1-day work of Rohit = 1/12

1-day work of Raju & Rohit together = 1/6 + 1/12 = 3/12 = 1/4



Total days taken by Raju & Rohit together = 4 Days

Simple Interest

- Simple interest = (Principal amount X Time X Rate) / 100
- Principal amount = (Simple interest X 100) / (Time X Rate)
- Rate = (Simple interest X 100) / (Time X Principal amount)
- Time = (Simple interest X 100) / (Principal X Rate)
- Total amount = Principal amount + Interest

Example40. Calculate the simple interest on 6000 Rs. with 6% interest rate yearly for 2 years?

Answer:720 Rs.

Simple interest = (Principal amount X Time X Rate) / 100

Simple Interest = (6000 X 2 X 6)/100 = 720 Rs.

Example41. The principal amount is 100 Rs. Difference in interest is for 4 years and 6 years is 8 Rs. Calculate the rate of interest?

Answer: 4%

Let us take interest rate is R

For 4 years: Simple interest = (100 X 4 X R)/100 = 4R

For 6 years: Simple interest = (100 X 6 X R)/100 = 6R

6R-4R=8 Rs, 2R=8, R=4, Rate of interest is 4%

Example42. With what simple interest rate your money will double in 8 years?

Answer: 12.5 %

Let us take, Principal amount = A, then interest is also = A, Time = 8 Years

Rate = (Simple interest X 100) / (Time X Principal amount)

Rate = (A X 100) / (8 X A) = 12.5%



Area of Geometrical Shapes

Rectangle

Area of rectangle = length x breadth = / x b

Perimeter of rectangle = 2 X (length + breadth)



<u>Square</u>

Area of Square = length X length

Periphery of square = 4 X length

 $\label{eq:linear} A four-sided shape that is made up of four straights ides that are the same length and that has four right angles.$





<u>Circle</u>

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 $\label{eq:constant} A circle is a pathtravelled by a point which moves in such a way that its distance from a fixed point remains constant$



 $The fixed point is known as {\it center} and the fixed distance is called the {\it radius}.$

- (a) Diameter of circle = 2 X Radius
- (b) Circumferenceorperimeterofcircle=2nr, whererisradiusofcircle
- (c) Areaofcircle = πr^2 , where r is radius of circle
- (d) Value of л = 22/7

Triangle





Area of Triangle = (Base x Perpendicular) /2

Perimeter of Triangle = Sum of the length of its all three sides.

Right Angle Triangle = A triangle which has one angle 90° is called right angle triangle.

Following triangle is a right angle triangle.



<u>Pythagoras Theorem</u>: In a right angle triangle <u>"square of hypotenuse is equal to the sum of squares of</u> <u>other two sides."</u>

From the given figure:

$$(AB)^{2} + (BC)^{2} = (AC)^{2}$$

Example43. A rectangular field has 30-meter length and 20-meter breadth. What is the area of this field?

Answer: 600 Square meter.

Area of rectangle = length X breadth

Area of field = 30 X 20 = 600 Square meter.





Answer: 9 Square meter

Area of square = 3 X 3 = 9 Square meter

Example45. Length of the base of a triangle is 10 Cm and perpendicular is 12 Cm. What is the area of this triangle?

Answer: 60 Square Cm

Area of Triangle = (Base X Perpendicular)/2

Area = (10 X 12)/2 = 60 Square Cm

Example46. If the radius of a circle is 10 cm, what will be the length of its diameter?

Answer: 20 Cm

Diameter = 2 X Radius = 2 X 10 = 20 cm.

Example47. Radius of a circle is 7 cm. What is the area and circumference of this circle?

Answer:154 Square Cm and 44 Cm

Area of a circle = πr^2 and circumference = $2\pi r$

Area = л (7)²= (22/7) X 7 X 7 = 22 X 7 = 154 Square Cm

Circumference = 2лr = 2 X (22/7) X 7 = 44 Cm

Basic Trigonometry

Sin θ = Perpendicular / Hypotenuse

 $\cos \theta = \text{Base} / \text{Hypotenuse}$

Tan θ =Perpendicular / Base

Cot θ =Base / Perpendicular = 1 / Tan θ



Sec θ =Hypotenuse / Base = 1 / Cos θ

Cosec θ =Hypotenuse / Perpendicular = 1 / Sin θ

Exercise

Ques1. Which of the following is not a prime number?

- a. 17
- b. 13
- c. 12
- d. 2

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Answer : d
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Ques2. Addition of 2 numbers A & B is 15 and subtraction is 3. What is the value of A and B?

- a. 8&7
- b. 6&9
- c. 3 & 12
- d. 4&11

Answer : b

Ques3. 125-73+48-137+99 = ?

- a. 237
- b. 62
- c. -37
- d. 52

Answer : b

Ques4. 15872+32+4 = ?

- a. 15908
- b. 16523
- c. 5894
- d. 12654



Answer : a

Ques5. 3895-1563+1089 = ?

- a. 3421
- b. 3527
- c. 3329
- d. 3429

Answer : a

Ques6. What is the smallest prime number?

a. 0

- b. 1
- c. 2
- d. 3

Answer : c

Ques7. Which of the following numbers is divisible by 5?

- a. 63
- b. 358
- c. 65
- d. 2451

Answer : c

Ques8. Which of the following number is divisible by 3?

- a. 3562
- b. 56
- c. 3261
- d. 953

Answer : c

Ques9. What is the place value of digit "5" in number 325698.

- a. 500
- b. 5



- c. 5000
- d. 50000

Answer : c

Ques10. What is the face value of "digit" 3 in number 63254

- a. 3
- b. 3000
- c. 300
- d. 30

Answer : a

Ques11. If the number 23y4 is divisible by 3 then what is the value of y?

- a. 1
- b. 0
- c. 2
- d. 4

Answer : b

Ques12. Write the number 62031 in letters.

Ques13. What is the value of $6010-6000 \times 1/10$

- a. 5410
- b. 1
- c. 10
- d. 600

Answer : a

Ques14. A student gets 1 mark if he gives right answer. But he loses 1 mark if he gives wrong answer. After attempting 100 questions, finally he scored 30 marks. How many answers were wrong?

- a. 25
- b. 35
- c. 40
- d. 45



Answer : b

Ques15. What is the average of all even numbers from 1 to 10?

a. 6b. 8c. 5

d. 3

Answer : a

Ques16. What is the average of all odd numbers from 1 to 10?

a. 6
b. 8
c. 5
d. 3

Answer : c

Ques17. Age of Radha, Mira and Siya are 18, 16, 14 respectively. What is their average age?

- a. 16
- b. 19
- c. 13
- d. 15

Answer : a

Ques18. Average of 5 numbers is 10. Which number we should add to make the average 12?

- a. 12
- b. 18
- c. 22
- d. 24

Answer : c

Ques19. Average of 5 numbers is 18. If we remove one number, then average becomes 16. What is the value of removed number?

a. 25



- b. 26
- c. 27
- d. 30

Answer : b

Ques20. In a class average age of 5 boys is 14 years and average age of 5 girls is 12 years. What is the average age of all 10 students?

- a. 14
- b. 13
- c. 12
- d. 15

Answer : b

Ques21. In a family the average age of Mother and Father is 35 years. And the average age of

Mother, Father and Son is 27 years. What is the age of the son?

- a. 14
- b. 11
- c. 15
- d. 16

Answer : b

Ques22. Average age of A, B, and C is 20 years. If average age of A and B is 19 years, then what is

the age of C?

a. 20

- b. 21
- c. 22
- d. 24

Answer : c

Ques23. Sunny buys a toy for 25 rupees and sells it for 30 rupees. How much profit does he get?

- a. 21%
- b. 20%
- c. 25%



d. 22%

Answer : b

Ques24. A milk man buys 20 liters milk for 400 rupees. If he sells milk 22 Rupees per liter, then how much profit does he make?

- a. 40 Rs
- b. 50 Rs
- c. 60 Rs
- d. 30 Rs

Answer : a

Ques25. Amount of Profit earned by selling a book at 996 Rs is equal to loss if the book is sold at 894

- Rs. What is the cost price of the book?
 - a. 935
 - b. 905
 - c. 945
 - d. 975

Answer : c

Ques26. A person sells a book for 100 rs. and earns the profit of 20 rs. How much percentage profit does he make?

- a. 20%
- b. 25%
- c. 22.5%
- d. 30%

Answer : b

Ques27. A shopkeeper sells 30 meter of cloth at the rate of 15 Rs. / meter. After selling he earns the

profit of 100 Rs. What was the cost price of the cloth?

- a. 400
- b. 350
- c. 500
- d. 250



Answer : b

Ques28. A sweet shop owner buys 20 sweets for 100 Rs. He sells 15 pieces of sweets at the rate 6

Rs. per piece. Rest of the pieces he could not sell. How much profit or loss he got?

- a. Loss of 10 Rs.
- b. Profit of 10 Rs.
- c. Loss of 20 Rs.
- d. Profit of 20 Rs.

Answer : a

Ques29. A shop keeper buys a chair for 400 Rs. and gets a loss of 25% after selling. What is the selling price of the chair?

- a. 250
- b. 450
- c. 300
- d. 375

Answer : c

Ques30. Mohan purchased a bag for 400 Rs. and sold it at 10% profit. What percentage of profit he should increase so that he sells it for 460 Rs.

- a. 3%
- b. 2%
- c. 7%
- d. 5%
- Answer : d

Ques31. A shop keeper buys 2 dozen mangoes for 150 Rs. One dozen he sells at a rate of 10 Rs. per piece. Another dozen he sells at 5 Rs. per piece. How much profit does he make?

- a. 30 Rs.
- b. 50 Rs.
- c. 40 Rs.
- d. 20 Rs.

Answer : a



Ques32. Rajesh bought a Almira for 1200 Rs. and after few days sold it for 900 Rs. What percentage

of loss he got?

- a. 30%
- b. 75%
- c. 25%
- d. 40 %

Answer : c

Ques33. If selling price of an item is 72 Rs after 20% profit, then what is the cost price of the item?

- a. 60
- b. 65
- c. 67
- d. 70

Answer : a

Ques34. Rajan sells his cycle for 3480 Rs. and earns the profit of 20%. What was the cost price of the

cycle?

- a. 2784
- b. 2900
- c. 2874
- d. 3122

Answer : b

Ques35. Rohit takes 3 days to finish a work and Kaushal takes 6 days to finish the same work. If both of them work together then how many days, they will take to finish the work?

- a. 2
- b. 3
- c. 4
- d. 1

Answer : a

Ques36. 15 people can finish a work in 10 days. How many days 25 people will take to finish the same work?



- a. 6
- b. 10
- c. 8
- d. 5

Answer : a

Ques37. Sunita can finish a work in 12 days alone. If Sunita and Rita work together they can finish this work in 8 days. How many days Rita will take to finish this work?

a. 18

- b. 20
- c. 16
- d. 24

Answer : d

Ques38. A takes 10 days to finish a work and B takes 15 days to finish the same work. If both of

them work together then how many days, they will take to finish the work?

- a. 5
- b. 6
- c. 8
- d. 10

Answer : b

Ques39. A can finish a work in 20 days alone. If A and B work together they can finish this work in 15 days. How many days B will take to finish this work?

- a. 60
- b. 45
- c. 40
- d. 30

Answer : a

Ques40. Tapan and Sunil work together. Tapan works twice the speed of Sunil. They can finish a work together in 12 days. If Tapan has to work alone, how many days will he take to finish this work?



- a. 15b. 18c. 20
- d. 24

Answer : b

Ques41. 18 people make a ship in 7 days. How many days 14 people will take to make the same

ship?

- a. 8b. 9c. 10
- d. 11

Answer : b

Ques42. 15 ladies can finish a work in 60 days. If 5 more ladies start working with them then in how many days' work will be finished?

- a. 45
- b. 50
- c. 55
- d. 40

Answer : a

Ques43. 15 boys can finish a work in 20 days. If the work is double of this then how many days 10 boys will take to finish double of this work?

- a. 40
- b. 50
- c. 60
- d. 30

Answer : c

Ques44. A person walks 1 KM in 10 minutes. What is the speed of this person in KM / Hour?

- a. 2
- b. 4



- c. 6
- d. 8

Answer : c

Ques45. A car travels a distance with a speed of 50 KM / Hour in 8 hours. To travel the same distance in 5 hours, how much speed should be increased?

- a. 50 KH / Hour
- b. 40 KH / Hour
- c. 30 KH / Hour
- d. 80 KH / Hour

Answer : c

Ques46. Speed of the car B is double than the car A. If car A covers a distance of 90 KM in 1.5 hours, then what is the speed of car B?

- a. 60 KH / Hour
- b. 90 KH / Hour
- c. 100 KH / Hour
- d. 120 KH / Hour

Answer : d

Ques47. Speed of the car W is double than the car M. If car W covers a distance of 120 KM in 2.5

hours, then what is the speed of car M?

- a. 42 KH / Hour
- b. 36 KH / Hour
- c. 48 KH / Hour
- d. 24 KH / Hour

Answer : d

Ques48. Speed of car A is 80 KM / Hour. It travels a distance in 6 Hours. In the same time car B

travels 60 Km less than car A. What is the speed of car B?

- a. 50 KH / Hour
- b. 70 KH / Hour
- c. 60 KH / Hour



d. 55 KH / Hour

Answer : b

Ques49. Length of one side of square park is 50 Meters. Ramesh runs in this park with a speed of 18

- KM / Hour. Calculate the time taken by Ramesh for one round?
 - a. 40 Seconds
 - b. 20Seconds
 - c. 80Seconds
 - d. 160Seconds

Answer : a

Ques50. A man covers a distance of 14 KM in 21 minutes. How much distance will he cover in 18

minutes?

- a. 10 KM
- b. 12 KM
- c. 14 KM
- d. 11 KM

Answer : b

Ques51. A bus is travelling with a speed of 90 KM / Hour. How much distance it will travel in 20

seconds?

- a. 500 meter
- b. 450 meter
- c. 180 meter
- d. 600 meter

Answer : a

Ques52. Speed of a scooter is 54 KM / Hour. How much distance it will cover in 1 minute?

- a. 500 meter
- b. 700 meter
- c. 800 meter
- d. 900 meter



Answer : d

Ques53. A motor cyclist is moving with a speed of 5 meter / second. How many kilometers distance he will travel in 3 hours and 20 minutes?

- a. 50 KM
- b. 40 KM
- c. 60 KM
- d. 70 KM

Answer : c

Ques54. Change the speed of 54 KM / Hour to Meter / Second?

- a. 14 meter / second
- b. 21 meter / second
- c. 15 meter / second
- d. 27 meter / second

Answer : c

Ques55. A circular path has radius of 100 meters. A cyclist travels half circle of this path in 2 minutes. What is the speed of the cyclist? (n=3.14)

- a. 200 meter / minute
- b. 314 meter / minute
- c. 300 meter / minute
- d. 900 meter / minute

Answer : b

Ques56. Speed of a car is 10 meter / second. What is the speed of this car in KM / Hour?

- a. 32 KM / Hour
- b. 36 KM / Hour
- c. 40 KM / Hour
- d. 50 KM / Hour

Answer : b



Ques57. A person goes from A to B with a speed of 20 KM / Hour and returns from B to A with a speed 30 KM / Hour. If total time taken in this full travel is 5 Hours, then what is the distance between A and B?

- a. 40 Km
- b. 50 KM
- c. 60 KM
- d. 70 Km

Answer : c

Ques58. A 60-meter-long train is travelling with 72 Km / Hour speed. How much time it will take to cross an electric pole?

- a. 2 Second
- b. 4 Second
- c. 5 Second
- d. 3 Second

Answer : d

Ques59. A 350-meter-long train is travelling with 54 Km / Hour speed. How much time it will take to cross a 250-meter-long platform?

- a. 20 Second
- b. 40 Second
- c. 50 Second
- d. 30 Second

Answer : b

Ques60. A train crosses a 120-meter-long platform in 10 seconds and it crosses a pole in 4 seconds.

What is the length of the train?

- a. 80 meter
- b. 40 meter
- c. 60 meter
- d. 100 meter

Answer : a



Ques61. 100 meters long train is travelling with 30 KM / Hour. How long it will take to pass a man standing near the rail track?

- a. 12 Second
- b. 15 Second
- c. 10 Second
- d. 11 Second

Answer : a

Ques62. 171 meters long train is travelling with 45 KM / Hour. How long it will take to pass 229meter-long rail bridge?

- a. 30 Second
- b. 35 Second
- c. 32 Second
- d. 40 Second

Answer : c

Ques63. 180 meters long train crosses a platform which is also 180 meters long in 18 seconds. What

is the speed of the train?

- a. 20 meter / second
- b. 10 meter / second
- c. 15 meter / second
- d. 18 meter / second

Answer : a

Ques64. 125 meters long train is travelling with 60 KM / Hour. It crosses a rail bridge in 30 seconds.

What is the length of the rail bridge?

- a. 375 meters
- b. 225 meters
- c. 125 meters
- d. 325 meters

Answer : a

Ques65. A 250-meter-long train crosses a signal pole in 15 seconds. What is the speed of the train?



- a. 48 Km / Hour
- b. 60 Km / Hour
- c. 72 Km / Hour
- d. 64 Km / Hour

Answer : b

Ques66. 280 meters long train is travelling with 60 KM / Hour. How long it will take to pass 220-

meter-long rail bridge?

- a. 20 Second
- b. 25 Second
- c. 30 Second
- d. 35 Second

Answer : c

Ques67. A 240-meter-long train crosses a platform in 20 seconds. What is the speed of the train?

- a. 48 Km / Hour
- b. 60 Km / Hour
- c. None of the above
- d. Cannot be determined

Answer : d

Ques68. Manish borrowed some amount and after 2 years paid back 630 Rupees. If the rate of

interest was 2.5%, then what was the original borrowed amount?

- a. 500
- b. 550
- c. 600
- d. 580

Answer : c

Ques69. Ayesha borrowed 1000 rupees at simple interest rate of 5% annually. After 4 years how much total amount she has to pay back?

- a. 1200
- b. 1300



- c. 220
- d. 200

Answer : a

Ques70. Prachi borrowed 550 rupees at the annual interest rate of 5% on simple interest. After 4 years how much total amount she will return?

- a. 101
- b. 606
- c. 660
- d. 110

Answer : c

Ques71. After how much time the simple interest will be 400 Rupees on 4000 Rupees principal amount? The rate of interest is 6% annual.

- a. 22 months
- b. 18 months
- c. 14 months
- d. 20 months

Answer : d

Ques72. Principal amount of 15000 becomes 15900 rupees in 1-year time. Calculate the rate of

interest?

- a. 8%
- b. 9%
- c. 6%
- d. 10%

Answer : c

Ques73. Arun deposits his money in the Bank scheme and his money becomes double in 8 years.

What was the annual interest rate if simple interest is given?

- a. 8
- b. 10.5
- c. 12



d. 12.5

Answer : d

Ques74. Gyan borrowed an amount for 6 years at 5% annual simple interest rate. If he pays total

- 615 rupees as interest then what was the principal amount?
 - a. 2000
 - b. 2050
 - c. 2100
 - d. 2150

Answer : b

Ques75. If an amount becomes 3 times in 10 years, then what is the rate of simple interest?

- a. 5%
- b. 8%
- c. 10%
- d. 20%

Answer : d

Ques76. Calculate the simple interest on 6000 Rupees for 8 months at 6% annual rate of interest?

- a. 250
- b. 300
- c. 240
- d. 400

Answer : c

Ques77. Length and breadth of a rectangular plot is 40 meters and 30 meters. What is the area of

that plot?

- a. 1200 Square meter
- b. 1400 Square meter
- c. 70 Square meter
- d. 120 Square meter

Answer : a



Ques78. A square has a side of 3 meters. What is the area of that square?

- a. 3 Square meter
- b. 12 Square meter
- c. 9 Square meter
- d. 6 Square meter

Answer : c

Ques79. In a right angle, Base = 12 cm, Hypotenuse= 13 cm. What is the area of this triangle?

- a. 30 square cm
- b. 78 square cm
- c. 25 square cm
- d. 10 square cm

Answer : a

Ques80. A wheel rotates 4000 times to cover a distance of 88 Km. What is the radius of this wheel?

- a. 4 meter
- b. 3.5 meter
- c. 3 meter
- d. 2.5 meter

Answer : b

Ques81. The perimeter of a triangle is 200 meters. If two of its sides are equal and the 3rd one is 20 meter more than the other sides, then calculate the length of third side.

- a. 60 meter
- b. 50 meter
- c. 80 meter
- d. 70 meter

Answer : c

Ques82. Area of a rectangle is 42 square meter. Its length is 7 meter. Calculate perimeter of this rectangle.

- a. 14 meter
- b. 21 meter



- c. 26 meter
- d. 24 meter

Answer : c

Ques83. Length of a rectangle is 5 meters. If its perimeter is 18 meters, then calculate its width?

- a. 8 meter
- b. 4 meter
- c. 3 meter
- d. 5 meter

Answer : b

Ques84. Length of a rectangle is 6 meters more than its width. If its perimeter is 64 meter, then what is the length of the rectangle?

- a. 19 meter
- b. 13 meter
- c. 12 meter
- d. 10 meter

Answer : a

Ques85. Length of a side of a square is 5 meter. What is the area of this square?

- a. 10-meter square
- b. 15-meter square
- c. 20-meter square
- d. 25-meter square

Answer : d

Ques86. Length of a side of a square is 3 meter. What is the perimeter of this square?

- a. 10-meter
- b. 9-meter
- c. 12-meter
- d. 6-meter

Answer : c



Ques87. Area of a circle is 616 square meter. Calculate its diameter? (*π*=22/7)

- a. 7 meter
- b. 14 meter
- c. 28 meter
- d. 56 meter

Answer : c

Ques88. Circumference of a circle is 22 meter. Calculate its diameter?(n=22/7)

- a. 7 meter
- b. 14 meter
- c. 3.5 meter
- d. 22 meter

Answer : a

Ques89. Circumference of a circle is 22 centimeters. Calculate its area?(n=22/7)

- a. 22 square centimeters
- b. 11 square centimeters
- c. 44 square centimeters
- d. 38.5 square centimeters

Answer : d

Ques90. Diameter of a wheel is 84 cm. how many times it will turn to cover a distance of 792

meters?(л=22/7)

- a. 298
- b. 300
- c. 312
- d. 256

Answer : b

Ques91. Sides of a rectangle are 10 cm and 5 cm. Calculate its perimeter?

- a. 30 cm
- b. 15 cm
- c. 50 cm



d. 10 cm

Answer : a

Ques92. The length of rectangle is 1 cm more than its breadth. Its perimeter is 14 cm. Calculate its

length?

- a. 4 cm
- b. 3 cm
- c. 2 cm
- d. 5 cm

Answer : a

Ques93. If length of the rectangle is increased two times, then how much its area will increase?

- a. Two times
- b. Three times
- c. Remains same
- d. Four times

Answer : a

Ques94. If length and breadth of the rectangle is increased two times, then how much its perimeter

will increase?

- a. Two times
- b. Three times
- c. Remains same
- d. Four times

Answer : a

Ques95. Diameter of a wheel is 1.26 meter. How much distance it will travel in 500 rounds?

- a. 2530 meter
- b. 1980 meter
- c. 1492 meter
- d. 2880 meter

Answer : b



Ques96. Radius of a wheel is 0.25 meters. To travel a distance of 11 Km, how many rounds it will

turn?

- a. 7000
- b. 4000
- c. 5500
- d. 2800

Answer : a

Ques97. Radius of a wheel is 14 centimeters. To travel a distance of 44 Km, how many rounds it will

turn?

- a. 20000
- b. 40000
- c. 50000
- d. 28000

Answer : c

Ques98. Sides of a triangle are 3 cm, 4 cm and 5 cm. Calculate its area?

- a. 6 square cm
- b. 10 square cm
- c. 60 square cm
- d. 30 square cm

Answer : a

Ques99. Which have the following has all sides equal?

- a. Rectangle
- b. Square
- c. Triangle
- d. Quadrilateral

Answer : b