SSC CGL Tier-2 20-February-2018 Maths

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Instructions
For the following questions answer them individually

Question 1

Which of the following statement(s) is/are TRUE?
$I. 33^3 > 3^{33}$
$II. 333 > (3^3)^3$

A Only I

B Only II

C Both I and II

D Neither I nor II

Answer: D

Question 2

If $P = 2^2 + 6^2 + 10^2 + 14^2 + \ldots 94^2$ and $Q = 1^2 + 5^2 + 9^2 + \ldots 81^2$, then what is the value of $P - Q$?

A 24645

B 26075

C 29317

D 31515

Answer: B

Question 3

If $A = \binom{1}{0.4} + \binom{1}{0.04} + \binom{1}{0.004} + \ldots$ upto 8 terms, then what is the value of A?

A 27272727.5

B 25252525.5

C 27777777.5

D 25555555.5

Answer: C

Question 4

If $M = 0.1 + (0.1)^2 + (0.01)^2$ and $N = 0.3 + (0.03)^2 + (0.003)^2$, then what is the value of $M + N$?

A 0.411009

B 0.413131

C 0.313131

D 0.131313

Answer: A

Question 5

If $P = \frac{96}{95\times97}, Q = \frac{97}{96\times98}$ and $R = \frac{1}{97}$, then which of the following is TRUE?

A $P < Q < R$

B $R < Q < P$

C $Q < P < R$

D $R < P < Q$

Answer: B

Question 6

Which of the following statement(s) is/are TRUE?

I. $11\frac{1}{2} + 17\frac{3}{4} - 5\frac{1}{5} - 2\frac{1}{10} = \frac{439}{20}$

II. $\frac{9}{1078} > \frac{11}{1127} > \frac{12}{1219}$

III. $\frac{149}{151} > \frac{153}{155} > \frac{157}{159}$

A Only I

B Only II

C Only III

D None is true

Answer: A

Question 7

Which of the following statement(s) is/are TRUE?

I. $\frac{2}{3\sqrt{3}} < \frac{3}{2\sqrt{5}} < \frac{5}{4\sqrt{3}}$

II. $\frac{3}{2\sqrt{5}} < \frac{2}{3\sqrt{3}} < \frac{7}{4\sqrt{5}}$

A Only I

B Only II

C Both I and II

D Neither I nor II

Answer: A

Question 8

Which of the following statement(s) is/are TRUE?
I. The total number of positive factors of 72 is 12.
II. The sum of first 20 odd numbers is 400.
III. Largest two digit prime number is 97.

A Only I and II

B Only II and III

C Only I and III

D All are true.

Answer: D

Question 9

If $M = \left(\frac{3}{7}\right) \div \left(\frac{6}{5}\right) \times \left(\frac{2}{3}\right) + \left(\frac{1}{5}\right) \times \left(\frac{3}{2}\right)$ **and** $N = \left(\frac{2}{5}\right) \times \left(\frac{5}{6}\right) \div \left(\frac{1}{3}\right) + \left(\frac{3}{5}\right) \times \left(\frac{2}{3}\right) \div \left(\frac{3}{5}\right)$**, then what is the value of** $\frac{M}{N}$**?**

A $\frac{207}{560}$

B $\frac{339}{1120}$

C $\frac{113}{350}$

D $\frac{69}{175}$

Answer: C

Question 10

M is the largest 4 digit number, which when divided by 4, 5, 6 and 7 leaves remainder as 2, 3, 4, and 5 respectively. What will be the remainder when M is divided by 9?

A 2

B 1

C 3

D 6

Answer: B

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Question 11

Which of the following statement(s) is/are TRUE?
I. $\sqrt{11} + \sqrt{7} < \sqrt{10} + \sqrt{8}$**.**
II. $\sqrt{17} + \sqrt{11} > \sqrt{15} + \sqrt{13}$

A Only I

B Only II

C Both I and II

D Neither I nor II

Answer: A

Question 12

Which of the following statement(s) is/are TRUE?

I. $\sqrt{12} > \sqrt[3]{16} > \sqrt[4]{24}$

II. $\sqrt[3]{25} > \sqrt[4]{32} > \sqrt[6]{48}$

III. $\sqrt[4]{9} > \sqrt[3]{15} > \sqrt[6]{24}$

A Only I and II

B Only I and III

C Only I

D All are true.

Answer: A

Question 13

If $x + y + z = 22$ and $xy + yz + zx = 35$, then what is the value of $(x - y)^2 + (y - z)^2 + (z - x)^2$?

A 793

B 681

C 758

D 715

Answer: C

Question 14

If $\binom{(x+y)}{z} = 2$, then what is the value of $\left[\binom{y}{(y-z)}\right] + \left[\binom{x}{(x-z)}\right]$?

A 0

B 1

C 2

D -1

Answer: C

Question 15

If α and β are the roots of equation $x^2 - 2x + 4 = 0$, then what is the equation whose roots are $\frac{\alpha^3}{\beta^2}$ and $\frac{\beta^3}{\alpha^2}$?

A $x^2 - 4x + 8 = 0$

B $x^2 - 32x + 4 = 0$

C $x^2 - 2x + 4 = 0$

D $x^2 - 16x + 4 = 0$

Answer: C

Question 16

If one root of the equation $Ax^2 + Bx + C = 0$ is two and a half times the others, then which of the following is TRUE?

A $7B^2 = 3CA$

B $7B^2 = 4CA$

C $7B^2 = 36CA$

D $10B^2 = 49CA$

Answer: D

Question 17

If $x^2 - 12x + 33 = 0$, then what is the value of $(x-4)^2 + \left[\frac{1}{(x-4)^2}\right]$?

A 16

B 14

C 18

D 20

Answer: B

Question 18

If $a^4 + 1 = \left[\frac{a^2}{b^2}\right](4b^2 - b^4 - 1)$, then what is the value of $a^4 + b^4$?

A 2

B 16

C 32

D 64

Answer: A

Question 19

If $3\sqrt{\frac{1-a}{a}} + 9 = 19 - 3\sqrt{\frac{a}{1-a}}$, then what is the value of a?

A $\frac{3}{10}, \frac{7}{10}$

B $\frac{1}{10}, \frac{9}{10}$

C $\frac{2}{5}, \frac{3}{5}$

D $\frac{1}{5}, \frac{4}{5}$

Answer: B

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Question 20

If $a+b=10$ **and** $\sqrt{\frac{a}{b}}-13=-\sqrt{\frac{b}{a}}-11$**, then what is the value of** $3ab+4a^2+5b^2$

A 450

B 300

C 600

D 750

Answer: B

Question 21

If $3x+4y-2z+9=17, 7x+2y+11z+8=23$ **and** $5x+9y+6z-4=18$**, then what is the value of** $x+y+z-34$**?**

A -28

B -14

C -31

D -45

Answer: C

Question 22

If $x+3y-\frac{2z}{4}=6, x+\frac{2}{3}(2y+3z)=33$ **and** $\frac{1}{7}(x+y+z)+2z=9$**, then what is the value of** $46x+131y$

A 414

B 364

C 384

D 464

Answer: A

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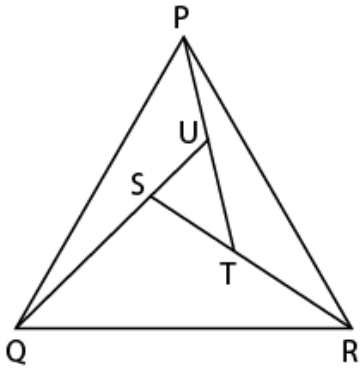
Question 23

In the given figure, in triangle STU, ST= 8 cm, TU = 9 cm and SU = 12 cm. QU = 24 cm, SR = 32 cm and PT = 27 cm. What is the ratio of the area of triangle PQU and area of triangle PTR?



A 1 : 1

B 1 : 4

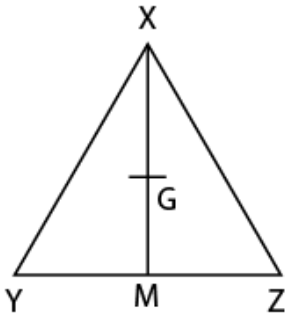
C 2 : 3

D 5 : 2

Answer: E

Question 24

In triangle XYZ, G is the centroid. If XY = 11 cm, YZ = 14 cm and XZ = 7 cm. then what is the value (in cm) of GM?



A 6

B 4

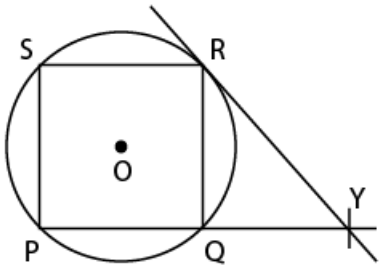
C 2

D 3

Answer: C

Question 25

In the given figure, PQRS is a square inscribed in a circle of radius 4 cm. PQ is produced till point Y. From Y a tangent is drawn to the circle at point R. What is the length (in cm) of SY?



A $4\sqrt{10}$

B $2\sqrt{10}$

C $6\sqrt{10}$

D $3\sqrt{5}$

Answer: A

General Science Notes for SSC CGL

Question 26

In a trapezium, one diagonal divides the other in the ratio 2 : 9. If the length of the larger of the two parallel sides is 45 cm, then what is the length (in cm) of the other parallel side?

A 10

B 5

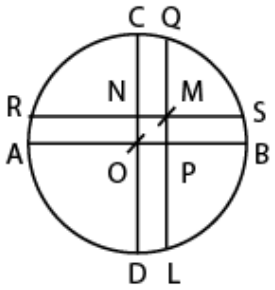
C 18

D 14

Answer: A

Question 27

In the given figure, CD and AB are diameters of circle and AB and CD are perpendicular to each other. LQ and SR are perpendiculars to AB and CD respectively. Radius of circle is 5 cm, PB : PA = 2 : 3 and CN : ND = 2 : 3. What is the length (in cm) of SM?



A $[(5\sqrt{3}) - 3]$

B $[(4\sqrt{3}) - 2]$

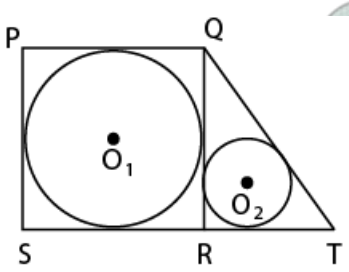
C $[(2\sqrt{5})-1]$

D $[(2\sqrt{6})-1]$

Answer: D

Question 28

In the given figure, PQRS is a square of side 20 cm and SR is extended to point T. If the length of QT is 25 cm, then what is the distance (in cm) between the centres O_1 and O_2 of the two circles?



A $5\sqrt{10}$

B $4\sqrt{10}$

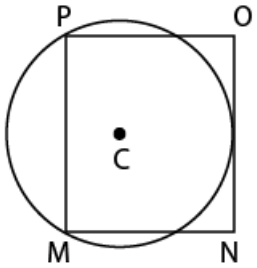
C $8\sqrt{5}$

D $16\sqrt{2}$

Answer: A

Question 29

In the given figure, MNOP is a square of side 6 cm. What is the value (in cm) of radius of circle?



A 4.25

B 3.75

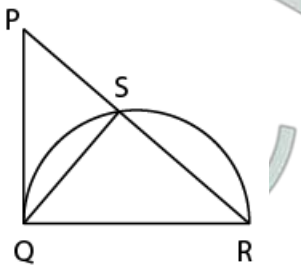
C 3.5

D 4.55

Answer: B

Question 30

In the given figure, triangle PQR is a right angled triangle at Q. If PQ = 35 cm and QS = 28 cm, then what is the value (in cm) of SR?



A 35.33

B 37.33

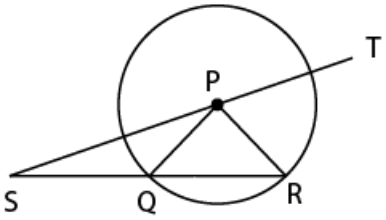
C 41.33

D 43.33

Answer: B

Question 31

In the given figure, P is the centre of the circle. If $QS = PR$, then what is the ratio of $\angle RSP$ to the $\angle TPR$?



A 1 : 4

B 2 : 5

C 1 : 3

D 2 : 7

Answer: C

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Question 32

The distance between the centres of two circles is 61 cm and their radii are 35 cm and 24 cm. What is the length (in cm) of the direct common tangent to the circles?

A 60

B 54

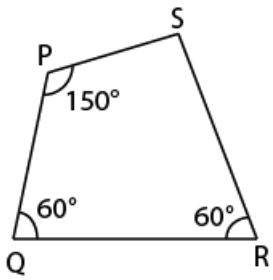
C 48

D 72

Answer: A

Question 33

In the given figure. $PQRS$ is a quadrilateral. If $QR = 18cm$ and $PS = 9cm$. then what is the area (in cm^2) of quadrilateral $PQRS$?



A $\frac{(64\sqrt{3})}{3}$

B $\frac{(177\sqrt{3})}{2}$

C $\frac{(135\sqrt{3})}{2}$

D $\frac{(98\sqrt{3})}{3}$

Answer: C

Question 34

PQR is a triangle, whose area is 180 cm^2. S is a point on side QR, such that PS is the angle bisector of $\angle QPR$. If $PQ : PR = 2 : 3$, then what is the area (in cm^2) triangle PSR?

A 90

B 108

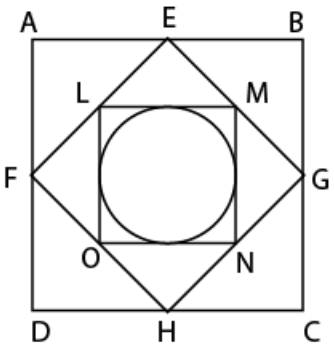
C 144

D 72

Answer: B

Question 35

In the given figure. ABCD is a square. EFGH is a square formed by joining mid points of sides of ABCD. LMNO is a square formed by joining mid points of sides of EFGH. A circle is inscribed inside EFGH. If area of circle is 38.5 cm^2. then what is the area (in cm^2) of square ABCD?



A 98

B 196

C 122.5

D 171.5

Answer: B

Question 36

ABCDEF is a regular hexagon of side 12 cm. What is the area (in cm^2) of the triangle ECD?

A $18\sqrt{3}$

B $24\sqrt{3}$

C $36\sqrt{3}$

D $42\sqrt{3}$

Answer: C

Question 37

PQRS is a square whose side is 16 cm. What is the value of the side (in cm) of the largest regular octagon that can be cut from the given square?

A $8-4\sqrt{2}$

B $16+8\sqrt{2}$

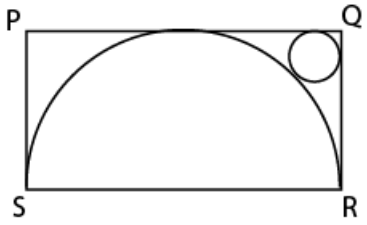
C $16\sqrt{2}\ -\sqrt{16}$

D $16-8\sqrt{2}$

Answer: C

Question 38

In the given figure, PQRS is a rectangle and a semicircle with SR as diameter is drawn. A circle is drawn as shown in the figure. If QR = 7 cm, then what is the radius (in cm) of the small circle?



A $21+14\sqrt{2}$

B $21-14\sqrt{2}$

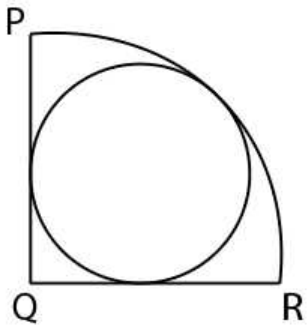
C Both $21+14\sqrt{2}$ and $21-14\sqrt{2}$

D None of these

Answer: B

Question 39

In the given figure, PQR is a quadrant whose radius is 7 cm. A circle is inscribed in the quadrant as shown in the figure. What is the area (in cm^2) of the circle?



A $385 - 221\sqrt{2}$

B $308 - 154\sqrt{2}$

C $154 - 77\sqrt{2}$

D $462 - 308\sqrt{2}$

Answer: D

Question 40

A prism has a regular hexagonal base with side 6 cm. If the total surface area of prism is $216\sqrt{3}\ cm^2$, then what is the height (in cm) of prism?

A $3\sqrt{3}$

B $6\sqrt{3}$

C 6

D 3

Answer: A

SSC MTS Previous Question papers (download pdf)

Question 41

The radius of base of solid cone is 9 cm and its height is 21 cm. It cut into 3 parts by two cuts, which are parallel to its base. The cuts are at height of 7 cm and 14 cm from the base respectively. What is the ratio of curved surface areas of top, middle and bottom parts respectively?

A 1 : 4 : 8

B 1 : 3 : 5

C 1 : 3 : 9

D 1 : 6 : 12

Answer: B

Question 42

A right circular cylinder has height as 18 cm and radius as 7 cm. The cylinder is cut in three equal parts (by 2 cuts parallel to base). What is the percentage increase in total surface area?

A 62

B 56

C 48

D 52

Answer: B

Question 43

The ratio of curved surface area and volume of a cylinder is 1 : 7. The ratio of total surface area and volume is 187 : 770. What is the respective ratio of its base radius and height?

A 5 : 8

B 4 : 9

C 3 : 7

D 7 : 10

Answer: D

SSC Stenographer Previous Question papers (download pdf)

Question 44

The ratio of total surface area and volume of a sphere is 1 : 7. This sphere is melted to form small spheres of equal size. The radius of each small sphere is $\frac{1}{6^{th}}$ the radius of the large sphere. What is the sum (in cm^2) of curved surface areas of all small spheres?

A 31276

B 36194

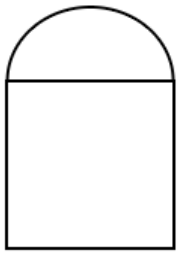
C 25182

D 33264

Answer: D

Question 45

A hemisphere is kept on top of a cube. Its front view is shown in the given figure. The total height of the figure is 21 cm. The ratio of curved surface area of hemisphere and total surface area of cube is 11 : 42. What is the total volume (in cm^3) of figure?



A 3318.33

B 3462.67

C 3154.67

D 3248.33

Answer: B

Question 46

A solid cube has side 8 cm. It is cut along diagonals of top face to get 4 equal parts. What is the total surface area (in cm^2) of each part?

A $96 + 64\sqrt{2}$

B $80 + 64\sqrt{2}$

C $96 + 48\sqrt{2}$

D $80 + 48\sqrt{2}$

Answer: A

SSC MTS Free Mock Test

Question 47

A regular pyramid has a square base. The height of the pyramid is 22 cm and side of its base is 14 cm. Volume of pyramid is equal to the volume of a sphere. What is the radius (in cm) of the sphere?

A $\sqrt[3]{49}$

B 7

C 14

D $\sqrt[3]{98}$

Answer: B

Question 48

What is the value of $\frac{[\sin(y-z)+\sin(y+z)+2\sin y]}{[\sin(x-z)+\sin(x+z)+2\sin x]}$ **?**

A $\cos x \sin y$

B $\begin{matrix}(\sin y)\\(\sin x)\end{matrix}$

C $\sin z$

D $\sin x \tan y$

Answer: B

Question 49

What is the value of $\left\{\begin{matrix}[\sin(x+y)-2\sin x+\sin(x-y)]\\[\cos(x-y)+\cos(x+y)-2\cos x]\end{matrix}\right\} \times \left[\begin{matrix}(\sin 10x-\sin 8x)\\(\cos 10x+\cos 8x)\end{matrix}\right]$**?**

A 0

B $\tan^2 x$

C 1

D $2\tan x$

Answer: B

SSC CPO Free Mock Test

Question 50

What is the value of

$[\sin(90° - 10\theta) - \cos(p - 6\theta)]/[\cos(\frac{p}{2} - 10\theta) - \sin(p - 6\theta)]$**?**

A $\tan 2\theta$

B $\cot 2\theta$

C $\cot \theta$

D $\cot 3\theta$

Answer: B

Question 51

If $\sec\theta(\cos\theta + \sin\theta) = \sqrt{2}$**, then what is the value of** $\begin{matrix}(2\sin\theta)\\(\cos\theta-\sin\theta)\end{matrix}$**?**

A $3\sqrt{2}$

B $\frac{3}{\sqrt{2}}$

C $\frac{1}{\sqrt{2}}$

D $\sqrt{2}$

Answer: D

Question 52

What is the value of $\frac{1}{\sin^4(90-\theta)} + \frac{1}{[\cos^2(90-\theta)]-1}$ **?**

A $\tan^2\theta sec^2\theta$

B $\sec^4\theta$

C $\tan^4\theta$

D $\tan^2\theta\sin^2\theta$

Answer: A

SSC GD Free Mock Test

Question 53

What is the value of $\frac{[\tan(90-A)+\cot(90-A)]^2}{[2\sec^2(90-2A)]}$ **?**

A 0

B 1

C 2

D -1

Answer: C

Question 54

What is the value of

$\{\sin(90-x)\cos[\pi-(x-y)]\}+\{\cos(90-x)\sin[\pi-(y-x)]\}$**?**

A $-\cos y$

B $-\sin y$

C $\cos x$

D $\tan y$

Answer: A

Question 55

The angle of elevation of an aeroplane from a point on the ground is 60°. After flying for 30 seconds, the angle of elevation changes to 30°. If the aeroplane is flying at a height of 4500 m, then what is the speed (in m/s) of aeroplane?

A $50\sqrt{3}$

B $100\sqrt{3}$

C $200\sqrt{3}$

D $300\sqrt{3}$

Answer: B

SSC Stenographer Free Mock Test

Question 56

A kite is flying in the sky. The length of string between a point on the ground and kite is 420 m. The angle of elevation of string with the ground is 30°. Assuming that there is no slack in the string, then what is the height (in metres) of the kite?

A 210

B $140\sqrt{3}$

C $210\sqrt{3}$

D 150

Answer: A

Question 57

A balloon leaves from a point P rises at a uniform speed. After 6 minutes, an observer situated at a distance of $450\sqrt{3}$ metres from point P observes that angle of elevation of the balloon is 60°. Assume that point of observation and point P are on the same level. What is the speed (in m/s) of the balloon?

A 4.25

B 3.75

C 4.5

D 3.45

Answer: B

Instructions

The table given below shows the information about bats manufactured by 6 different companies. Each company manufactures only plastic and wooden bats Each company labels these bats as Brand A or Brand B The table shows the number of plastic bats as a percentage of total bats manufactured by each company. It also shows the ratio of wooden bats labeled A and B. Each company manufactured a total of 550000 bats.

Company	Plastic bats	Brand A : Brand B
R	55%	21 : 4
S	70%	8 : 7
T	45%	6 : 19
U	75%	41 : 14
V	60%	7 : 15
W	40%	5 : 6

Question 58

What is the total number of wooden bats of brand A manufactured by company T?

A 23420

B 22990

C 68920

D 72600

Answer: D

Question 59

N = Wooden bats of Brand B manufactured by U.
M = Total wooden bats manufactured by R and W together.
What is the value of $\frac{N}{M}$?

A 0.043

B 0.061

C 0.125

D 0.087

Answer: B

Question 60

P = Sum of wooden bats of Brand B manufactured by S and wooden bats of Brand A manufactured by W.
Q = Difference of Brand B wooden bats and Brand A wooden bats manufactured by U.

What is the value P - Q?

A 67500

B 177700

C 159500

D 123500

Answer: C

Question 61

Taking all 6 companies together, how many wooden bats of Brand A have been produced?

A 691000

B 724000

C 683000

D 716000

Answer: A

Question 62

X = Average of plastic bats manufactured by V, U and T.
Y = Wooden bats of Brand A manufactured by V.
What is the value X - Y?

A 197600

B 432890

C 260000

D 293300

Answer: C

Instructions
For the following questions answer them individually

Question 63

A drum contains 80 litres of ethanol. 20 litres of this liquid is removed and replaced with water. 20 litres of this mixture is again removed and replaced with water. How much water (in litres) is present in this drum now?

A 45

B 40

C 35

D 44

Answer: C

Question 64

An alloy is made by mixing metal A costing Rs 2000/kg and metal B costing Rs 400/kg in the ratio A:B = 3:1. What is the cost (in Rs) of 8 kilograms of this alloy?

A 1600

B 9800

C 6400

D 12800

Answer: D

Question 65

A, B and C invest to start a restaurant. The total investment was Rs 3 lakhs. B invested Rs 50,000 more than A and C invested Rs 25,000 less than B. If the profit at the end of the year was Rs 14,400 then what is C's share of the profit (in Rs)?

A 3600

B 4800

C 6000

D 7200

Answer: B

Question 66

Two businessmen A and B invest in a business in the ratio 5 : 8. They decided to reinvest 30% of the profit they earned back into the business. The remaining profit they distributed amongst themselves. If A's share of the profit was Rs 87,500 then how much profit (in Rs) did the business make?

A 227000

B 250000

C 375000

D 325000

Answer: D

Question 67

Working alone A can do the task in 27 hours and B can do it in 54 hours. Find C's share (in Rs) if A, B and C get paid Rs 4,320 for completing a task in 12 hours on which they worked together.

A 1440

B 960

C 1920

D 1280

Answer: A

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Question 68

If A had worked alone he would have taken 63 hours to do the task. What is B's share, if A and B work together on a task finishing it in 36 hours and they get paid Rs 5,950 for it?

A 3400

B 3600

C 2550

D 2750

Answer: C

Question 69

Working together A, B and C can complete a task in 12 days. A and B can do the task in 55 days and 66 days respectively if they worked alone. In how many days can C do the task if he worked alone?

A 22

B 44

C 20

D 40

Answer: C

Question 70

B would have taken 10 hours more than what A would have taken to complete a task if each of them worked alone. Working together they can complete the task in 12 hours. How many hours would B take to do 50% of the task?

A 30

B 15

C 20

D 10

Answer: B

Question 71

Giving two successive discounts of 20% is same as giving one discount of _____ %.

A 36

B 40

C 44

D 50

Answer: A

Question 72

A retailer marks up his goods by 150% and offers 40% discount. What will be the selling price (in Rs) if the cost price is Rs 800?

A 1200

B 1500

C 1000

D 2000

Answer: A

Question 73

On a television of brand A the discount is 25% and on television of brand B the discount is 40%. The price of B after discount Rs 2,250 greater than the price of A after discount. What is the marked price of A (in Rs) if marked price of B is Rs 35,000?

A 18750

B 21000

C 25000

D 17850

Answer: C

Question 74

If 60% discount is offered on the marked price and selling price becomes equal to cost price then what was the % mark up?

A 100

B 250

C 150

D 40

Answer: C

Question 75

If 3A = 6B = 9C; What is A : B : C

A 6 : 3 : 1

B 6 : 3 : 2

C 9 : 3 : 6

D 9 : 3 : 1

Answer: B

Question 76

How many job applicants had applied if the ratio of selected to unselected was 19:17. If 1,200 less had applied and 800 less selected, then the ratio of selected to unselected would have been 1:1.

A 6000

B 7200

C 8400

D 4800

Answer: B

Question 77

What is the third proportional to 10 and 20?

A 30

B 25

C 50

D 40

Answer: D

Question 78

The ratio of the sum of the salaries of A and B to the difference of their salaries is 11:1 and the ratio of the sum of the salaries of B and C to the difference of their salaries is also 11:1. If A's salary is the highest and C's is the lowest then what is B's salary (in Rs) given the total of all their salaries is Rs 1,82,000?

A 72000

B 60000

C 50000

D 86400

Answer: B

Question 79

If by increasing the price of a ticket in the ratio 8:11 the number of tickets sold fall in the ratio 23:21 then what is the increase (in Rs) in revenue if revenue before increase in price of ticket was Rs 36,800?

A 21250

B 9400

C 7850

D 12850

Answer: B

Question 80

The ratio of ages of the father and mother was 11:10 when their son was born. The ratio of ages of the father and mother will be 19:18 when the son will be twice his present age. What is the ratio of present ages of father and mother?

A 15 : 14

B 14 : 13

C 16 : 15

D 17 : 16

Answer: A

Question 81

Of the 3 numbers whose average is 22, the first is $\frac{3}{8^{th}}$ the sum of other 2. What is the first number?

A 16

B 20

C 22

D 18

Answer: D

Question 82

The average of three consecutive odd numbers is 52 more than $\frac{1}{3^{rd}}$ of the largest of these numbers. What is the smallest of these numbers?

A 79

B 75

C 81

D 77

Answer: D

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Question 83

A batsman scores 98 runs in the 17^{th} match of his career. His average runs per match increased by 2.5. What is his average before the 17th match?

A 58

B 60.5

C 63

D 55.5

Answer: D

Question 84

What is the average of all numbers between 100 and 200 which are divisible by 13?

A 147.5

B 145.5

C 143.5

D 149.5

Answer: D

Question 85

A vendor buys bananas at 9 for Rs 8 and sells at 8 for Rs 9. What will be the profit or loss (in %)?

A 13.28% profit

B 26.56% loss

C 26.56% profit

D 13.28% loss

Answer: C

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Question 86

If a stall sells a pizza at Rs 200 he makes 20% loss if he wants to make 10% profit then at what price (in Rs) should he sell?

A 250

B 300

C 275

D 325

Answer: C

Question 87

A wholesaler had 200 dozens of mangoes. He sold some of these mangoes at 20% profit and the rest at 10% profit, so that he made 13% profit on selling all the mangoes. How many mangoes (in dozens) did he sell at 20% profit?

A 140

B 60

C 80

D 120

Answer: B

Question 88

If the selling price is tripled and cost price doubled the profit would become 65%. What is the present profit (in %)?

A 20

B 15

C 25

D 10

Answer: D

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Question 89

0.06% of 250% of 1600 is _____.

A 24

B 0.24

C 0.024

D 2.4

Answer: D

Question 90

Two numbers are 90% and 75% lesser than a third number. By what % should the first number be increased so that it becomes equal to the second number?

A 250

B 200

C 150

D 100

Answer: C

Question 91

When a number is increased by 216, it becomes 140% of itself. What is the number?

A 540

B 756

C 450

D 675

Answer: A

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Question 92

A man donates 30% of his wealth to charity. 30% and 25% of the remaining wealth to his wife and son respectively. The rest he divides equally between his three daughters. One of his daughter gets Rs 42 lakh as her share. What was the man's wealth (in Rs lakhs)?

A 280

B 400

C 500

D 350

Answer: B

Question 93

A bus travels 720 km in 20 hours. Calculate its average speed in meters/second.

A 12

B 15

C 18

D 10

Answer: D

Question 94

If a boat goes upstream at a speed of 21 km/h and comes back the same distance at 28 km/h. What is the average speed (in km/hr) for the total journey?

A 24.5

B 24

C 25

D 25.4

Answer: B

Question 95

Two runners A and B start running at 12 km/hr and 16 km/hr towards each other. They meet after 1 hour and 30 minutes. How far (in km) were they from each other when they started?

A 42

B 36

C 40

D 45

Answer: A

Question 96

Flight A usually takes 1 hour more than Flight B to travel a distance of 7200 km. Due to engine trouble speed of flight B falls by a factor of $\frac{1}{6^{th}}$, so it takes 36 minutes more than Flight A to complete the same journey? What is the speed of Flight A (in km/hr)?

A 800

B 900

C 750

D 720

Answer: A

Question 97

In how many years will Rs 2,000 yield Rs 662 as compound interest at 10% per annum compounded annually?

A 3

B 2

C 4

D 5

Answer: A

Question 98

What is the compound interest earned on Rs 80,000 at 40% per annum in 1 year compounded quarterly?

A 28317

B 37128

C 18732

D 21387

Answer: B

Question 99

An investor invested his saving in the stock market. The value of his investments increased by 12% and 9% in the first year and the second year respectively. If the value of his investments after two years became Rs 97,664 then how much had he invested (in Rs)?

A 81000

B 75000

C 80000

D 72000

Answer: C

Question 100

What is the rate of interest (in %) if simple interest earned on a certain sum for the 3 years is Rs 6,000 and compound interest earned for 2 years is Rs 4,160?

A 9

B 8

C 12

D 6

Answer: B

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