

21-Feb-2018 Morning Shift (Quantitative Ability)

QUESTION. 1 - If $A = 1 - 10 + 3 - 12 + 5 - 14 + 7 + \dots$ upto 60 terms, then what is the value of A?

Options:

- 1) - 360
- 2) - 310
- 3) - 240
- 4) - 270

Correct Answer: - 270

QUESTION. 2 - How many natural numbers are there between 1000 to 2000, which when divided by 341 leaves remainder 5?

Options:

- 1) 3
- 2) 2
- 3) 4
- 4) 1

Correct Answer: 3

QUESTION. 3 - Which of the following statement(s) is/are TRUE?

I. $\sqrt{64} + \sqrt{0.0064} + \sqrt{0.81} + \sqrt{0.0081} = 9.07$

II. $\sqrt{0.010201} + \sqrt{98.01} + \sqrt{0.25} = 11.51$

Options:

- 1) Only I
- 2) Only II
- 3) Both I and II
- 4) Neither I nor II

Correct Answer: Only I

QUESTION. 4 - Which of the following statement(s) is/are TRUE?

I. $(0.7)^2 + (0.07)^2 + (11.1)^2 > 123.8$

II. $(1.12)^2 + (10.3)^2 + (1.05)^2 > 108.3$

Options:

- 1) Only I
- 2) Only II
- 3) Both I and II
- 4) Neither I nor II

Correct Answer: Only II

QUESTION. 5 -

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

I. $\frac{1}{1 \times 3} + \frac{1}{3 \times 5} + \frac{1}{5 \times 7} + \dots + \frac{1}{11 \times 13} = \frac{12}{13}$

II. $\frac{1}{1 \times 2} + \frac{1}{2 \times 3} + \frac{1}{3 \times 4} + \dots + \frac{1}{12 \times 13} = \frac{12}{13}$

निम्नलिखित में से कौन सा/से कथन सत्य है/हैं?

I. $\frac{1}{1 \times 3} + \frac{1}{3 \times 5} + \frac{1}{5 \times 7} + \dots + \frac{1}{11 \times 13} = \frac{12}{13}$

II. $\frac{1}{1 \times 2} + \frac{1}{2 \times 3} + \frac{1}{3 \times 4} + \dots + \frac{1}{12 \times 13} = \frac{12}{13}$

Options:

- 1) Only I
- 2) Only II
- 3) Both I and II
- 4) Neither I nor II

Correct Answer: Only II

QUESTION. 6 - Which of the following statement(s) is/are TRUE?

I. $\frac{3}{71} < \frac{5}{91} < \frac{7}{99}$

II. $\frac{11}{135} > \frac{12}{157} > \frac{13}{181}$

Options:

- 1) Only I
- 2) Only II
- 3) Both I and II
- 4) Neither I nor II

Correct Answer: Both I and II

QUESTION. 7 - If $1 + (1/2) + (1/3) + \dots + (1/20) = k$, then what is the value of $(1/4) + (1/6) + (1/8) + \dots + (1/40)$?

Options:

- 1) $k/2$
- 2) $2k$
- 3) $(k - 1)/2$

4) $(k + 1)/2$

Correct Answer: $(k - 1)/2$

QUESTION. 8 - If $A = 2^{32}$, $B = 2^{31} + 2^{30} + 2^{29} + \dots + 2^0$ and $C = 3^{15} + 3^{14} + 3^{13} + \dots + 3^0$, then which of the following option is TRUE?

Options:

- 1) $C > B > A$
- 2) $C > A > B$
- 3) $A > B > C$
- 4) $A > C > B$

Correct Answer: $C > A > B$

QUESTION. 9 - If $x + y = 10$ and $xy = 4$, then what is the value of $x^4 + y^4$?

Options:

- 1) 8464
- 2) 8432
- 3) 7478
- 4) 6218

Correct Answer: 8432

QUESTION. 10 - M is the largest three digit number which when divided by 6 and 5 leaves remainder 5 and 3 respectively. What will be the remainder when M is divided by 11?

Options:

- 1) 1
- 2) 2
- 3) 3
- 4) 4

Correct Answer: 4

QUESTION. 11 - Which of the following statement(s) is/are TRUE?

- I. $\sqrt{5} + \sqrt{5} > \sqrt{7} + \sqrt{3}$
- II. $\sqrt{6} + \sqrt{7} > \sqrt{8} + \sqrt{5}$
- III. $\sqrt{3} + \sqrt{9} > \sqrt{6} + \sqrt{6}$

Options:

- 1) Only I
- 2) Only I and II
- 3) Only II and III
- 4) Only I and III

Correct Answer: Only I and II

QUESTION. 12 -

If $a = \frac{\sqrt{3} + \sqrt{2}}{\sqrt{3} - \sqrt{2}}$ and $b = \frac{\sqrt{3} - \sqrt{2}}{\sqrt{3} + \sqrt{2}}$, then

what is the value of $a^2 + b^2 - ab$?

यदि $a = \frac{\sqrt{3} + \sqrt{2}}{\sqrt{3} - \sqrt{2}}$ तथा $b = \frac{\sqrt{3} - \sqrt{2}}{\sqrt{3} + \sqrt{2}}$ हैं,

तो $a^2 + b^2 - ab$ का मान क्या है?

Options:

- 1) 97
- 2) $(2\sqrt{3}) + 2$
- 3) $(4\sqrt{6}) + 1$
- 4) 98

Correct Answer: 97

QUESTION. 13 - If the difference between the roots of the equation $Ax^2 - Bx + C = 0$ is 4, then which of the following is TRUE?

Options:

- 1) $B^2 - 16A^2 = 4AC + 4B^2$
- 2) $B^2 - 10A^2 = 4AC + 6A^2$
- 3) $B^2 - 8A^2 = 4AC + 10A^2$
- 4) $B^2 - 16A^2 = 4AC + 8B^2$

Correct Answer: $B^2 - 10A^2 = 4AC + 6A^2$

QUESTION. 14 - α and β are the roots of quadratic equation. If $\alpha + \beta = 8$ and $\alpha - \beta = 2\sqrt{5}$, then which of the following equation will have roots α^4 and β^4 ?

Options:

- 1) $x^2 - 1522x + 14641 = 0$
- 2) $x^2 + 1921x + 14641 = 0$
- 3) $x^2 - 1764x + 14641 = 0$
- 4) $x^2 + 2520x + 14641 = 0$

Correct Answer: $x^2 - 1522x + 14641 = 0$

QUESTION. 15 - If a and b are the roots of the equation $Px^2 - Qx + R = 0$, then what is the value of $(1/a^2) + (1/b^2) + (a/b) + (b/a)$?

Options:

- 1)

$$\frac{(Q^2 - 2P)(2R + P)}{PR^2}$$

2)

$$\frac{(Q^2 - 2PR)(R + P)}{PR^2}$$

3)

$$\frac{(Q^2 - 2R)(2P + R)}{P^2R^2}$$

4)

$$\frac{(Q^2 - 2PR)(2R + 2P)}{P^2R^2}$$

Correct Answer:

QUESTION. 16 - If $x^2 - 16x - 59 = 0$, then what is the value of $(x - 6)^2 + [1/(x - 6)]^2$?

Options:

- 1) 14
- 2) 18
- 3) 16
- 4) 20

Correct Answer: 18

QUESTION. 17 - If A and B are the roots of the equation $Ax^2 - A^2x + AB = 0$, then what is the value of A and B respectively?

Options:

- 1) 1, 0
- 2) 1, 1
- 3) 0, 2
- 4) 0, 1

Correct Answer: 1, 0

QUESTION. 18 - α and β are the roots of the quadratic equation $x^2 - x - 1 = 0$. What is the value of $\alpha^2 + \beta^2$?

Options:

- 1) 47

- 2) 54
- 3) 59
- 4) 68

Correct Answer: 47

QUESTION. 19 - If $a + b + c = 9$, $ab + bc + ca = 26$, $a^3 + b^3 = 91$, $b^3 + c^3 = 72$ and $c^3 + a^3 = 35$, then what is the value of abc ?

Options:

- 1) 48
- 2) 24
- 3) 36
- 4) 42

Correct Answer: 24

QUESTION. 20 - If $x^3 - 4x^2 + 19 = 6(x - 1)$, then what is the value of $[x^2 + (1/x - 4)]^2$?

Options:

- 1) 3
- 2) 5
- 3) 6
- 4) 8

Correct Answer: 6

QUESTION. 21 - Cost of 8 pencils, 5 pens and 3 erasers is Rs 111. Cost of 9 pencils, 6 pens and 5 erasers is Rs 130. Cost of 16 pencils, 11 pens and 3 erasers is Rs 221. What is the cost (in Rs) of 39 pencils, 26 pens and 13 erasers?

Options:

- 1) 316
- 2) 546
- 3) 624
- 4) 482

Correct Answer: 546

QUESTION. 22 - If $2x + 3y - 5z = 18$, $3x + 2y + z = 29$ and $x + y + 3z = 17$, then what is the value of $xy + yz + zx$?

Options:

- 1) 32
- 2) 52
- 3) 64
- 4) 46

Correct Answer: 52

QUESTION. 23 - PQR is an equilateral triangle whose side is 10 cm. What is the value (in cm) of the inradius of triangle PQR?

Options:

- 1) $5/\sqrt{3}$
- 2) $10\sqrt{3}$
- 3) $10/\sqrt{3}$
- 4) $5\sqrt{2}$

Correct Answer: $5/\sqrt{3}$

QUESTION. 24 - What is the area (in cm^2) of the circumcircle of a triangle whose sides are 6 cm, 8 cm and 10 cm respectively?

Options:

- 1) $275/7$
- 2) $550/7$
- 3) $2200/7$
- 4) $1100/7$

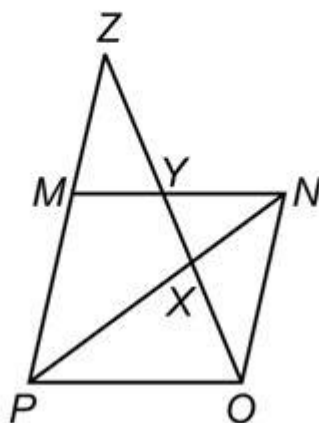
Correct Answer: $550/7$

QUESTION. 25 -

Examsbook

In the given figure, $MNOP$ is a parallelogram. PM is extended to Z . OZ intersects MN and PN at Y and X respectively. If $OX = 27$ cm and $XY = 18$ cm, then what is the length (in cm) of YZ ?

दी गई आकृति में, $MNOP$ एक समांतर चतुर्भुज है। PM को Z तक बढ़ाया गया है। OZ , MN तथा PN को क्रमशः Y तथा X पर प्रतिच्छेद करती है। यदि $OX = 27$ से.मी. तथा $XY = 18$ से.मी. हैं, तो YZ की लम्बाई (से.मी. में) क्या है?



Options:

- 1) 21.4
- 2) 22.5
- 3) 23.8
- 4) 24.5

Correct Answer: 22.5

QUESTION. 26 - ABCD is a trapezium in which AB is parallel to CD and $AB = 4(CD)$. The diagonals of the trapezium intersect at O. What is the ratio of area of triangle DCO to the area of the triangle ABO?

Options:

- 1) 1 : 4
- 2) 1 : 2

3) 1 : 8

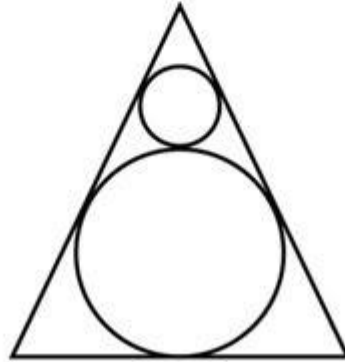
4) 1 : 16

Correct Answer: 1 : 16

QUESTION. 27 -

In the given figure, ABC is an equilateral triangle. Two circles of radius 4 cm and 12 cm are inscribed in the triangle. What is the side (in cm) of an equilateral triangle?

दी गई आकृति में, ABC एक समकोण त्रिभुज है। 4 से.मी. तथा 12 से.मी. त्रिज्या वाले दो वृत्त त्रिभुज में अंकित हैं। समकोण त्रिभुज की भुजा (से.मी. में) क्या है?



Options:

1) $32/\sqrt{3}$

2) $32\sqrt{3}$

3) $64/\sqrt{3}$

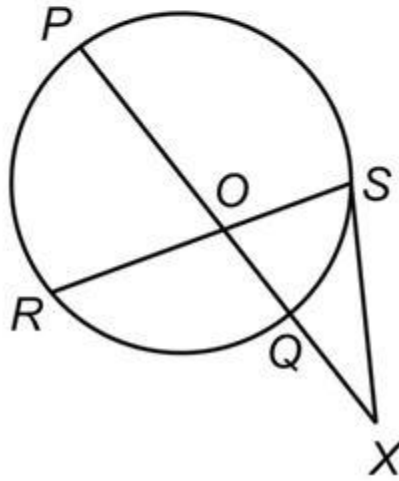
4) $64\sqrt{2}$

Correct Answer: [No Correct Answer]

QUESTION. 28 -

In the given figure, SX is tangent. $SX = OX = OR$. If $QX = 3$ cm and $PQ = 9$ cm, then what is the value (in cm) of OS ?

दी गई आकृति में, SX एक स्पर्श रेखा है। $SX = OX = OR$ हैं। यदि $QX = 3$ से.मी. तथा $PQ = 9$ से.मी. हैं, तो OS का मान (से.मी. में) क्या है?



Options:

- 1) 6
- 2) 5
- 3) 4
- 4) 3

Correct Answer: 3

QUESTION. 29 - PAB and PCD are two secants to a circle. If $PA = 10$ cm, $AB = 12$ cm and $PC = 11$ cm, then what is the value (in cm) of PD ?

Options:

- 1) 18
- 2) 9
- 3) 20
- 4) 12

Correct Answer: 20

QUESTION. 30 - Triangle PQR is inscribed in a circle such that P , Q and R lie on the circumference. If PQ is the diameter of the circle and $\angle PQR = 40^\circ$, then what is the value (in degrees) of $\angle QPR$?

Options:

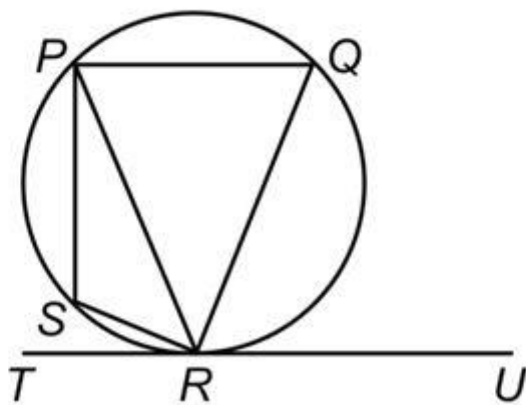
- 1) 40
- 2) 45
- 3) 50
- 4) 55

Correct Answer: 50

QUESTION. 31 -

In the given figure, $\angle QRU = 72^\circ$, $\angle TRS = 15^\circ$ and $\angle PSR = 95^\circ$, then what is the value (in degrees) of $\angle PQR$?

दी गई आकृति में, $\angle QRU = 72^\circ$, $\angle TRS = 15^\circ$ तथा $\angle PSR = 95^\circ$ हैं, तो $\angle PQR$ का मान (डिग्री में) क्या है?



Options:

- 1) 85
- 2) 95
- 3) 75
- 4) 90

Correct Answer: 95

QUESTION. 32 - What can be the maximum number of common tangent which can be drawn to two non-intersecting circles?

Options:

- 1) 2
- 2) 4
- 3) 3
- 4) 6

Correct Answer: 4

QUESTION. 33 - Triangle PQR is inscribed in the circle whose radius is 14 cm. If PQ is the diameter of the circle and PR = 10 cm, then what is the area of the triangle PQR?

Options:

- 1) 196
- 2) $30\sqrt{19}$
- 3) $40\sqrt{17}$
- 4) $35\sqrt{21}$

Correct Answer: $30\sqrt{19}$

QUESTION. 34 - PQR is a right angled triangle in which PQ = QR. If the hypotenuse of the triangle is 20 cm, then what is the area (in cm^2) of the triangle PQR?

Options:

- 1) $100\sqrt{2}$
- 2) 100
- 3) $50\sqrt{2}$
- 4) 50

Correct Answer: 100

QUESTION. 35 - PQRS is a square whose side is 20 cm. By joining opposite vertices of PQRS are get four triangles. What is the sum of the perimeters of the four triangles?

Options:

- 1) $40\sqrt{2}$
- 2) $80\sqrt{2} + 80$
- 3) $40\sqrt{2} + 40$
- 4) $40\sqrt{2} + 80$

Correct Answer: $80\sqrt{2} + 80$

QUESTION. 36 - If ABCDEF is a regular hexagon, then what is the value (in degrees) of $\angle ADB$?

Options:

- 1) 15
- 2) 30
- 3) 45
- 4) 60

Correct Answer: 30

QUESTION. 37 - ABCD is square and CDE is an equilateral triangle outside the square. What is the value (in degrees) of $\angle BEC$?

Options:

- 1) 15
- 2) 30
- 3) 25
- 4) 10

Correct Answer: 15

QUESTION. 38 - There is a circular garden of radius 21 metres. A path of width 3.5 metres is constructed just outside the garden. What is the area (in metres²) of the path?

Options:

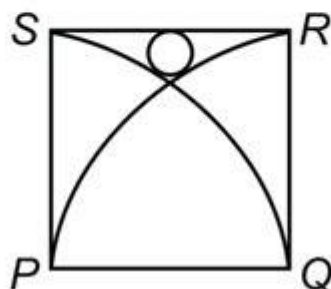
- 1) 50.05
- 2) 57.56
- 3) 52.12
- 4) 56.07

Correct Answer: [No Correct Answer]

QUESTION. 39 -

In the given figure, $PQRS$ is a square whose side is 8 cm. PQS and QPR are two quadrants. A circle is placed touching both the quadrants and the square as shown in the figure. What is the area (in cm^2) of the circle?

दी गई आकृति में, $PQRS$ एक वर्ग है जिसकी भुजा 8 से.मी. है। PQS तथा QPR वृत्त के दो चतुर्थ भाग हैं। एक वृत्त, वृत्त के दोनों चतुर्थ भागों तथा वर्ग को स्पर्श कर रहा है जैसा कि आकृति में दर्शाया गया है। वृत्त का क्षेत्रफल (से.मी.² में) क्या है?



Options:

1) 13/17

2) 11/14

3) 19/31

4) 15/19

Correct Answer: 11/14

QUESTION. 40 - The base of a prism is in the shape of an equilateral triangle. If the perimeter of the base is 18 cm and the height of the prism is 20 cm, then what is the volume (in cm³) of the prism?

Options:

1) 60√3

2) 30√6

3) 60√2

4) 120√3

Correct Answer: [No Correct Answer]

QUESTION. 41 - The height of a cone is 24 cm and the area of the base is 154 cm². What is the curved surface area (in cm²) of the cone?

Options:

1) 484

2) 550

3) 525

4) 515

Correct Answer: 550

QUESTION. 42 - A right circular solid cylinder has radius of base 7 cm and height is 28 cm. It is melted to form a cuboid such that the ratio of its side is 2 : 3 : 6. What is the total surface area (in cm²) cuboid?

Options:

1)

$$\sqrt[3]{\frac{2156}{3}}$$

2)

$$\sqrt[3]{\frac{2156}{9}}$$

3)

$$\sqrt[3]{\frac{2148}{3}}$$

4)

$$\sqrt[3]{\frac{2048}{3}}$$

Correct Answer: [No Correct Answer]

QUESTION. 43 - A right circular cylinder is formed. A = sum of total surface area and the area of the two bases. B = the curved surface area of this cylinder. If A : B = 3 : 2 and the volume of cylinder is 4312 cm³, then what is the sum of area (in cm²) of the two bases of this cylinder?

Options:

- 1) 154
- 2) 308
- 3) 462
- 4) 616

Correct Answer: 308

QUESTION. 44 - A solid sphere has a radius 21 cm. It is melted to form a cube. 20% material is wasted in this process. The cube is melted to form hemisphere. In this process 20% material is wasted. The hemisphere is melted to form two spheres of equal radius. 20% material was also wasted in this process. What is the radius (in cm) of each new sphere?

Options:

1)

$$4.2(\sqrt[3]{2})$$

2)

$$2.1(\sqrt[3]{2})$$

3)

$$2.1(\sqrt[3]{4})$$

4)

$$4.2(\sqrt[3]{4})$$

Correct Answer:

QUESTION. 45 - A solid hemisphere has radius 14 cm. It is melted to form a cylinder such that the ratio of its curved surface area and total surface area is 2 : 3. What is the radius (in cm) of its base?

Options:

1)

$$\frac{10}{\sqrt[3]{3}}$$

2)

$$\frac{14}{\sqrt[3]{3}}$$

3)

$$\frac{7}{\sqrt[3]{3}}$$

4)

$$\frac{21}{\sqrt[3]{3}}$$

Correct Answer:

QUESTION. 46 - A cuboid has dimensions 8 cm x 10 cm x 12 cm. It is cut into small cubes of side 2 cm. What is the percentage increase in the total surface area?

Options:

1) 286.2

2) 314.32

3) 250.64

4) 386.5

Correct Answer: 386.5

QUESTION. 47 - A pyramid has a square base. The side of square is 12 cm and height of pyramid is 21 cm. The pyramid is cut into 3 parts by 2 cuts parallel to its base. The cuts are at height of 7 cm and 14 cm respectively from the base. What is the difference (in cm³) in the volume of top most and bottom most part?

Options:

1) 872

2) 944

3) 786

4) 918

Correct Answer: [No Correct Answer]

QUESTION. 48 - What is the value of $\frac{(\sin 4x + \sin 4y) [(\tan 2x - 2y)]}{(\sin 4x - \sin 4y)}$?

Options:

- 1) $\tan 2(2x + 2y)$
- 2) $\tan 2$
- 3) $\cot(x - y)$
- 4) $\tan(2x + 2y)$

Correct Answer: $\tan(2x + 2y)$

QUESTION. 49 - What is the value of $(32 \cos^6 x - 48 \cos^4 x + 18 \cos^2 x - 1)/[4 \sin x \cos x \sin(60 - x) \cos(60 - x) \sin(60 + x) \cos(60 + x)]$?

Options:

- 1) $4 \tan 6x$
- 2) $4 \cot 6x$
- 3) $8 \cot 6x$
- 4) $8 \tan 6x$

Correct Answer: $8 \cot 6x$

QUESTION. 50 - What is the value of $[2 \cot x (p - A)/2]/[1 + \tan^2 x (2p - A)/2]$?

Options:

- 1) $2 \sin^2 A/2$
- 2) $\cos A$
- 3) $\sin A$
- 4) $2 \cos^2 A/2$

Correct Answer: $\sin A$

QUESTION. 51 - If $\tan \theta + \sec \theta = (x - 2)/(x + 2)$, then what is the value of $\cos \theta$?

Options:

- 1) $(x^2 - 1)/(x^2 + 1)$
- 2) $(2x^2 - 4)/(2x^2 + 4)$
- 3) $(x^2 - 4)/(x^2 + 4)$
- 4) $(x^2 - 2)/(x^2 + 2)$

Correct Answer: $(x^2 - 4)/(x^2 + 4)$

QUESTION. 52 - What is the value of $(\cos 40^\circ - \cos 140^\circ)/(\sin 80^\circ + \sin 20^\circ)$?

Options:

- 1) $2\sqrt{3}$
- 2) $2/\sqrt{3}$
- 3) $1/\sqrt{3}$
- 4) $\sqrt{3}$

Correct Answer: $2/\sqrt{3}$

QUESTION. 53 - What is the value of $[1 - \tan(90 - \theta) + \sec(90 - \theta)]/[\tan(90 - \theta) + \sec(90 - \theta) + 1]$?

Options:

- 1) $\cot(\theta/2)$
- 2) $\tan(\theta/2)$

3) $\sin \theta$

4) $\cos \theta$

Correct Answer: $\tan (\theta/2)$

QUESTION. 54 - What is the value of $[\sin (90 - A) + \cos (180 - 2A)]/[\cos (90 - 2A) + \sin (180 - A)]$?

Options:

1) $\sin (A/2) \cos A$

2) $\cot (A/2)$

3) $\tan (A/2)$

4) $\sin A \cos (A/2)$

Correct Answer: $\tan (A/2)$

QUESTION. 55 - The distance between the tops of two building 38 metres and 58 metres high is 52 metres. What will be the distance (in metres) between two buildings?

Options:

1) 46

2) 42

3) 44

4) 48

Correct Answer: 48

QUESTION. 56 - The angles of elevation of the top of a tree 220 meters high from two points lie on the same plane are 30° and 45° . What is the distance (in metres) between the two points?

Options:

1) 193.22

2) 144.04

3) 176.12

4) 161.05

Correct Answer: 161.05

QUESTION. 57 - The angles of elevation of the top of a tower 72 metre high from the top and bottom of a building are 30° and 60° respectively. What is the height (in metres) of building?

Options:

1) 42

2) $20\sqrt{3}$

3) $24\sqrt{3}$

4) 48

Correct Answer: 48

QUESTION. 58 -

The table given below shows the number of students who were absent and percentage of students who were present in the given two examinations from five different schools. The table also shows the percentage of students who were present in the Biology and Physics examination respectively.

नीचे दी गई तालिका में दी गई दो परीक्षाओं में पाँच विभिन्न विद्यालयों से अनुपस्थित विद्यार्थियों की संख्या तथा उपस्थित विद्यार्थियों के प्रतिशत को दर्शाया गया है। यह तालिका क्रमशः जीव विज्ञान तथा भौतिकी की परीक्षा में उपस्थित विद्यार्थियों के प्रतिशत को भी दर्शाती है।

School / विद्यालय	Absent / अनुपस्थित (% में)	Present (in %) / उपस्थित (% में)	Biology (in %) / जीव विज्ञान (% में)	Physics (in %) / भौतिकी (% में)
K	83300	65	32	68
L	101520	60	29	71
M	113520	40	30	70
N	60830	65	42	58
O	24003	55	25	75

What is the difference between the number of students who were present in Physics and Biology examination from school N?

Options:

1) 21150

2) 14352

3) 22594

4) 24250

Correct Answer: 22594

QUESTION. 59 -

The table given below shows the number of students who were absent and percentage of students who were present in the given two examinations from five different schools. The table also shows the percentage of students who were present in the Biology and Physics examination respectively.

नीचे दी गई तालिका में दी गई दो परीक्षाओं में पाँच विभिन्न विद्यालयों से अनुपस्थित विद्यार्थियों की संख्या तथा उपस्थित विद्यार्थियों के प्रतिशत को दर्शाया गया है। यह तालिका क्रमशः जीव विज्ञान तथा भौतिकी की परीक्षा में उपस्थित विद्यार्थियों के प्रतिशत को भी दर्शाती है।

School / विद्यालय	Absent / अनुपस्थित (% में)	Present (in %) / उपस्थित (% में)	Biology (in %) / जीव विज्ञान (% में)	Physics (in %) / भौतिकी (% में)
K	83300	65	32	68
L	101520	60	29	71
M	113520	40	30	70
N	60830	65	42	58
O	24003	55	25	75

Number of students who were present in Physics examination from school M is what percent of number of students who were absent from school M, L and O?

Options:

- 1) 22.48
- 2) 29.28
- 3) 9.09
- 4) 13.4

Correct Answer: [No Correct Answer]

QUESTION. 60 -

The table given below shows the number of students who were absent and percentage of students who were present in the given two examinations from five different schools. The table also shows the percentage of students who were present in the Biology and Physics examination respectively.

नीचे दी गई तालिका में दी गई दो परीक्षाओं में पाँच विभिन्न विद्यालयों से अनुपस्थित विद्यार्थियों की संख्या तथा उपस्थित विद्यार्थियों के प्रतिशत को दर्शाया गया है। यह तालिका क्रमशः जीव विज्ञान तथा भौतिकी की परीक्षा में उपस्थित विद्यार्थियों के प्रतिशत को भी दर्शाती है।

School / विद्यालय	Absent / अनुपस्थित (% में)	Present (in %) / उपस्थित (% में)	Biology (in %) / जीव विज्ञान (% में)	Physics (in %) / भौतिकी (% में)
K	83300	65	32	68
L	101520	60	29	71
M	113520	40	30	70
N	60830	65	42	58
O	24003	55	25	75

What is the average of the number of the students who were present in Physics examination from school N, K and L?

Options:

1) 109635

2) 84632

3) 74365

4) 67894

Correct Answer: [No Correct Answer]

QUESTION. 61 -

The table given below shows the number of students who were absent and percentage of students who were present in the given two examinations from five different schools. The table also shows the percentage of students who were present in the Biology and Physics examination respectively.

नीचे दी गई तालिका में दी गई दो परीक्षाओं में पाँच विभिन्न विद्यालयों से अनुपस्थित विद्यार्थियों की संख्या तथा उपस्थित विद्यार्थियों के प्रतिशत को दर्शाया गया है। यह तालिका क्रमशः जीव विज्ञान तथा भौतिकी की परीक्षा में उपस्थित विद्यार्थियों के प्रतिशत को भी दर्शाती है।

School / विद्यालय	Absent / अनुपस्थित (% में)	Present (in %) / उपस्थित (% में)	Biology (in %) / जीव विज्ञान (% में)	Physics (in %) / भौतिकी (% में)
K	83300	65	32	68
L	101520	60	29	71
M	113520	40	30	70
N	60830	65	42	58
O	24003	55	25	75

What are the total number of students who were present in the Biology examination from all the schools together?

Options:

1) 193462

2) 249048

3) 326438

4) 211738

Correct Answer: [No Correct Answer]

QUESTION. 62 -

The table given below shows the number of students who were absent and percentage of students who were present in the given two examinations from five different schools. The table also shows the percentage of students who were present in the Biology and Physics examination respectively.

नीचे दी गई तालिका में दी गई दो परीक्षाओं में पाँच विभिन्न विद्यालयों से अनुपस्थित विद्यार्थियों की संख्या तथा उपस्थित विद्यार्थियों के प्रतिशत को दर्शाया गया है। यह तालिका क्रमशः जीव विज्ञान तथा भौतिकी की परीक्षा में उपस्थित विद्यार्थियों के प्रतिशत को भी दर्शाती है।

School / विद्यालय	Absent / अनुपस्थित (% में)	Present (in %) / उपस्थित (% में)	Biology (in %) / जीव विज्ञान (% में)	Physics (in %) / भौतिकी (% में)
K	83300	65	32	68
L	101520	60	29	71
M	113520	40	30	70
N	60830	65	42	58
O	24003	55	25	75

If the number of students who were present in the Physics examination from school A is 250% of the difference of the number of the students who were present in Physics and Biology examination, from school K, then what is the ratio of the number of students who were present from school L to number of students who were present in Physics examination from school A?

Options:

- 1) 5079 : 4631
- 2) 1692 : 1547
- 3) 1547 : 4631
- 4) 1692 : 2345

Correct Answer: 1692 : 1547

QUESTION. 63 - A jar contains a blend of a fruit juice and water in the ratio 5 : x. When 1 litre of water is added to 4 litres of the blend the ratio of fruit juice to water becomes 1 : 1. What is the value of x?

Options:

- 1) 3
- 2) 1
- 3) 2
- 4) 4

Correct Answer: 3

QUESTION. 64 - An alloy contains copper and tin in the ratio 3 : 2. If 250 gm of copper is added to this alloy then the copper in it becomes double the quantity of tin in it. What is the amount (in gm) of tin in the alloy?

Options:

- 1) 250
- 2) 750
- 3) 1000
- 4) 500

Correct Answer: 500

QUESTION. 65 - A starts a cement trading business by investing Rs 5 lakhs. After 2 months, B joins the business by investing Rs 10 lakhs and then 4 months after B joined C too joins them by investing Rs 20 lakhs. 1 year after A started the business they make Rs 3,50,000 in profit. What is B's share of the profit (in Rs)?

Options:

- 1) 75000
- 2) 1,25,000
- 3) 1,50,000
- 4) 1,00,000

Correct Answer: 1,25,000

QUESTION. 66 - A, B and C invest in a business in the ratio 3 : 6 : 5. A and C are working partners. Only B is a sleeping partner hence his share will be $\frac{3}{4}$ th of what it would have been if he were a working partner. If they make Rs 50,000 profit, half of which is reinvested in the business and the other half is distributed between the partners, then how much does C get (in Rs)?

Options:

- 1) 20000
- 2) 6000
- 3) 10000
- 4) 9000

Correct Answer: 10000

QUESTION. 67 - A can do a work in 21 days and B in 42 days. If they work on it together for 7 days, then what fraction of work is left?

Options:

- 1) $\frac{1}{3}$

2) $\frac{1}{4}$

3) $\frac{2}{3}$

4) $\frac{1}{2}$

Correct Answer: $\frac{1}{2}$

QUESTION. 68 - A can paint a house in 55 days and B can do it in 66 days. Along with C, they did the job in 12 days only. Then, C alone can do the job in how many days?

Options:

1) 24

2) 44

3) 33

4) 20

Correct Answer: 20

QUESTION. 69 - A, B and C together can finish a task in 12 days. A is twice as productive as B and C alone can do the task in 36 days. In how many days can A and B do the task if C goes on leave?

Options:

1) 10

2) 20

3) 15

4) 18

Correct Answer: 18

QUESTION. 70 - A, B and C can together do a job in 9 days. C alone can do the job in 36 days. In how many days can A and B do 50% of the job working together?

Options:

1) 6

2) 12

3) 9

4) 15

Correct Answer: 6

QUESTION. 71 - Giving two successive discounts of 25% is equal to giving one discount of _____%.

Options:

1) 43.75

2) 56.25

3) 50

4) 45

Correct Answer: 43.75

QUESTION. 72 - If a watch is being sold at Rs 7,225 which is marked at Rs 8,500, then what is the discount (in %) at which the watch is being sold?

Options:

1) 24

2) 15

3) 25

4) 20

Correct Answer: 15

QUESTION. 73 - On a machine there is 10% trade discount on the marked price of Rs 2,50,000. But the machine is sold at Rs 2,16,000 after giving a cash discount. How much is this cash discount (in %)?

Options:

1) 5

2) 4

3) 6

4) 7

Correct Answer: 4

QUESTION. 74 - A trader marks up his goods by 120% and offers 30% discount. What will be the selling price (in Rs) if the cost price is Rs 750?

Options:

1) 1225

2) 1080

3) 1280

4) 1155

Correct Answer: 1155

QUESTION. 75 - Sanjay's test marks in two subjects, English and Hindi are in the ratio 7 : 11. If he got 20 marks more in Hindi than in English, what are his marks in English?

Options:

1) 35

2) 55

3) 45

4) 65

Correct Answer: 35

QUESTION. 76 - The ratio of present ages of Simi and Seema is 5 : 4. After 9 years the ratio of their ages will be 8 : 7. What is Simi's present age (in years)?

Options:

- 1) 12
- 2) 15
- 3) 24
- 4) 21

Correct Answer: 15

QUESTION. 77 - Find the third proportional to 6 and 12.

Options:

- 1) 18
- 2) 9
- 3) 24
- 4) 15

Correct Answer: 24

QUESTION. 78 - According to the will the wealth of Rs 21,25,000 was to be divided between the son and the daughter in the ratio $7/6 : 5/3$. How much did the son get (in Rs)?

Options:

- 1) 875000
- 2) 12,50,000
- 3) 10,00,000
- 4) 11,25,000

Correct Answer: 875000

QUESTION. 79 - If Rs 25,000 is to be divided between A, B and C in the ratio $1/10 : 1/6 : 1/15$, then how much will C get (in Rs)?

Options:

- 1) 5000
- 2) 7500
- 3) 10000
- 4) 12500

Correct Answer: 5000

QUESTION. 80 - Rizwan has a box in which he kept red and blue marbles. The red marbles and blue marbles were in the ratio 5 : 4. After he lost 5 red marbles the ratio became 10 : 9. How many marbles does he have now?

Options:

- 1) 81
- 2) 86

3) 76

4) 91

Correct Answer: 76

QUESTION. 81 - The average weight of L, M and N is 93 kg. If the average weight of L and M be 89 kg and that of M and N be 96.5 kg, then the weight (in kg) of M is _____.

Options:

1) 92

2) 86

3) 101

4) 95

Correct Answer: 92

QUESTION. 82 - Mahesh buys 3 shirts at an average price of Rs 1250. If he buys 2 more shirts at an average price of Rs 1450 what will be the average price (in Rs) of all the 5 shirts he buys?

Options:

1) 1370

2) 1330

3) 1310

4) 1390

Correct Answer: 1330

QUESTION. 83 - In a one day match of 50 overs in an innings the Team A had a run rate of 6.1 runs per over. Team B is playing and 10 overs are left and the required run rate to tie the match is 6.5 per over. What is Team B's score now?

Options:

1) 235

2) 230

3) 240

4) 225

Correct Answer: 240

QUESTION. 84 - Average of all even numbers between 222 and 250 is _____.

Options:

1) 234

2) 232

3) 236

4) 230

Correct Answer: 236

QUESTION. 85 - A vendor buys bananas at 7 for Rs 6 and sells at 6 for Rs 7. What will be the result?

Options:

1) 36.1% loss

- 2) 26.5% profit
- 3) 36.1% profit
- 4) 26.5% loss

Correct Answer: 36.1% profit

QUESTION. 86 - A miner sells a diamond to a trader at a profit of 40% and the trader sells it to a customer at a profit of 25%. If the customer pays Rs 56 lakhs to buy the diamond, what had it cost the miner (in Rs lakhs)?

Options:

- 1) 30
- 2) 28
- 3) 25
- 4) 32

Correct Answer: 32

QUESTION. 87 - A grocer had 1600 kgs of wheat. He sold a part of it at 20% profit and the rest at 12% profit, so that he made a total profit of 17%. How much wheat (in kg) did he sell at 20% profit?

Options:

- 1) 600
- 2) 1000
- 3) 800
- 4) 1200

Correct Answer: 1000

QUESTION. 88 - A used two-wheeler dealer sells a scooter for Rs 46,000 and makes some loss. If he had sold it for Rs 58,000 his profit would have been double his loss. What was the cost price (in Rs) of the scooter?

Options:

- 1) 52000
- 2) 54000
- 3) 48000
- 4) 50000

Correct Answer: 50000

QUESTION. 89 - 0.08% of 120% of 50,000 is equal to _____.

Options:

- 1) 480
- 2) 48
- 3) 4800
- 4) 4.8

Correct Answer: 48

QUESTION. 90 - When a number is increased by 24, it becomes 115% of itself. What is the number?

Options:

- 1) 160
- 2) 250
- 3) 100
- 4) 200

Correct Answer: 160

QUESTION. 91 - Two numbers are 40% and 80% lesser than a third number. By how much percent is the second number to be enhanced to make it equal to the first number?

Options:

- 1) 100
- 2) 33.3
- 3) 66.6
- 4) 200

Correct Answer: 200

QUESTION. 92 - Price of diesel increased from Rs 45/litre to Rs 50/litre. How much should the consumption of diesel be reduced (in %) so as to increase expenditure by only 5%?

Options:

- 1) 5.5
- 2) 5
- 3) 4
- 4) 4.5

Correct Answer: 5.5

QUESTION. 93 - A plane flies a distance of 1800 km in 5 hours. What is its average speed in meters/second?

Options:

- 1) 200
- 2) 10
- 3) 20
- 4) 100

Correct Answer: 100

QUESTION. 94 - If a boat goes upstream at a speed of 24 km/hr and comes back the same distance at 40 km/hr. What is the average speed (in km/hr) for the total journey.

Options:

- 1) 32
- 2) 30
- 3) 31
- 4) 33

Correct Answer: 30

QUESTION. 95 - Two bikers A and B start and ride at 75 km/hr and 60 km/hr respectively towards each other. They meet after 20 minutes. How far (in km) were they from each other when they started?

Options:

- 1) 60
- 2) 45
- 3) 30
- 4) 15

Correct Answer: 45

QUESTION. 96 - Excluding stoppages, the speed of a bus is 80 kmph and including stoppages, it is 60 kmph. For how many minutes does the bus stop per hour?

Options:

- 1) 12
- 2) 15
- 3) 18
- 4) 20

Correct Answer: 15

QUESTION. 97 - In 2 years at simple interest the principal increases by 8%. What will be the compound interest earned (in Rs) on Rs 10 lakhs in 2 years at the same rate?

Options:

- 1) 86000
- 2) 81600
- 3) 90000
- 4) 94000

Correct Answer: 81600

QUESTION. 98 - If the compound interest for the 3rd and 4th year on a certain principal is Rs 125 and Rs 135 respectively, what is the rate of interest (in %)?

Options:

- 1) 9
- 2) 10
- 3) 8
- 4) 12

Correct Answer: 8

QUESTION. 99 - A certain bank offers 8% rate of interest on the 1st year and 9% on the 2nd year in a certain fixed deposit scheme. If Rs 17,658 are received after investing for 2 years in this scheme, then what was the amount (in Rs) invested?

Options:

- 1) 16000
- 2) 15000
- 3) 15500
- 4) 16500

Correct Answer: 15000

QUESTION. 100 - What is the difference (in Rs) in Compound interest earned in 1 year on a sum of Rs 25,000 at 20% per annum compounded semi-annually and annually?

Options:

- 1) 125
- 2) 250
- 3) 500
- 4) 375

Correct Answer: 250

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