



TS Police SI Mains 2018 Arithmetic and Reasoning

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Arithmetic & Reasoning

Instructions

For the following questions answer them individually

Question 1

A person gives $47\frac{1}{2}\%$ of his property to the elder son, $32\frac{1}{2}\%$ to the younger son, 5% to a temple and the balance of Rs. 6 lakhs to his daughter. The share of the younger son (in lakhs of rupees) is

- A 2
- B 6
- C 13
- D 15

Answer: C

Question 2

If 25% of a number is added to another number then the second number is increased by 10%. The ratio of the first number to the second is

- A 1 : 2
- B 2 : 1
- C 2 : 5
- D 5 : 2

Answer: C

Question 3

A Person spends 80% of his monthly salary. His salary was increased by 20%. He increased his expenditure also by 20%. Then, the percentage increase in his savings is

- A 15
- B 20
- C 25
- D 30

Answer: B

Question 4

A class has two sections A and B having 60 and 40 students respectively, If 45% of the section A and 55% of the section B pass in an examination then the pass percentage of the two sections together is

- A 49
- B 52
- C 54
- D 37

Answer: A

Question 5

To pass an Examination a student has to secure 45% of marks. A boy getting 295 marks fails by 20 marks. The maximum marks for the examination is

- A 750
- B 700
- C 650
- D 600

Answer: B

Question 6

In a fraction if the numerator is increased by 23% and the denominator is decreased by 32% we get new fraction $\frac{13}{17}$. The sum of the new fraction to the original is

- A $\frac{2348}{2109}$
- B $\frac{2834}{2190}$
- C $\frac{2483}{2091}$
- D $\frac{2384}{2901}$

Answer: C

Question 7

The total number of students in a class with 44 girls and the rest 45% boys is

- A 85
- B 80
- C 76
- D 74

Answer: B

Question 8

There are 60 students in a class. One of the student weighing 40 Kgs was replaced by another student. Now the average weight of the student increased by 0.2 kg. The weight of the new student is (in kgs)

- A 48
- B 52
- C 54
- D 56

Answer: B

Question 9

The average of 40 numbers is 35. If two numbers 44,45 are discarded, then the average of the remaining numbers is

- A 33.5
- B 34
- C 34.25
- D 34.5

Answer: D

Question 10

There are 4 number. The average of first three numbers is 56 and the average of last three is 49,if the first number is 48 then the last number is

- A 40
- B 55
- C 39
- D 27

Answer: D

Question 11

Two persons A and started a company with capitals in the ratio 7 : 8. At the end of the business A and B shared the profit in the ratio 5 : 4. If A kept his capital for 10 months, then the number of months that B kept his capital is

- A 9
- B 7
- C 6
- D 5

Answer: B

Question 12

In a Partnership A,B,C invest capitals in the ratio 3:5:7.If at the end of the year the total profit is Rs.90,000 then difference between the profits of A and c in rupees is

- A 24000
- B 18000
- C 12000
- D 9000

Answer: A

Question 13

A,B,c started a business with the capitals in the ratio 4:5:6 which are kept for 16 months,12 months,8 months respectively.At the end of the business if B shares in the profit is Rs.1,35,000 , then the total profit in rupees is

- A 3,00,000
- B 3,47,000
- C 3,67,000
- D 3,87,000

Answer: D

Question 14

A,B enter a business with capitals Rs. 3 lakhs and Rs. 4 lakhs respectively, At the end of the year A receives monthly salary for looking after accounts. At the end of the year A and B receive their shares respectively equal to the amounts when the total profit of Rs. 1,96000 is divided in the ratio 4:3. Then A's monthly salary in rupees, is

- A 4085
- B $4083\frac{1}{3}$
- C $4271\frac{2}{3}$
- D 4500

Answer: B

Question 15

Two persons A and B enter in to a business with the capitals in the ratio 4:5. At the end of 5 months A with draw from the Business. At the end of business if they shared their profits in the ratio 1:6, then the number of months B's capital used in the Business is

- A 24
- B 18
- C 12
- D 16

Answer: A

Question 16

A certain Amount is divided among three persons A,B,C. A gets $\frac{1}{6}$ of the amount and b gets $\frac{1}{6}$ of the amount and c gets remaining amount . If C gets 2800/- then A gets

- A 800
- B 1000
- C 1100
- D 1200

Answer: A

Question 17

$$\sqrt[3]{\sqrt{0.000729}} =$$

- A 3.03

- B 0.3
- C 0.03
- D 0.003

Answer: B

Question 18

The Mess charge for 42 students for 28 days is Rs.47,040. Then the Mess charges for 35 Students for 25 days, in rupees, is equal to

- A 37,250
- B 35,000
- C 32,250
- D 30,000

Answer: B

Question 19

$$y \neq 0, 2x = 3y \Rightarrow \frac{x+y}{x-y} =$$

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

Answer: C

Question 20

A person P started business with some capital and another person Q joined him four months later investing 60% more than the investment of P. If Q gets 5000 more than P at the end of the year then the profit of P (in rupees) is

- A 55,000
- B 60,000
- C 65,000
- D 75,000

Answer: D

Question 21

If $a : b = 1 : 2$, $b : c = 3 : 5$, $c : d = 5 : 4$ and $e : d = 5 : 6$ then $a : b : c : d : e =$

- A 3 : 6 : 10 : 8 : 7
- B 9 : 18 : 30 : 24 : 20
- C 15 : 30 : 50 : 40 : 48
- D 1 : 2 : 3 : 4 : 5

Answer: B

Question 22

If the average of three persons is 20 years and the ages are in the ratio 2:3:5 then the ages (in years) of the youngest among them is

- A 12
- B 18
- C 10
- D 8

Answer: A

Question 23

In a Joint business A invested thrice that of B and the period of Investment of A is twice that of B. If the share of B in the Profit of Rs.40,000/- and If A donates a sum of Rs.50000/- to a trust from his share then the amount left with A in the profit (in lakhs of rupees) is

- A 2.0
- B 1.9
- C 2.4
- D 1.5

Answer: B

Question 24

A person A purchased a watch for Rs. 4800 and sold it to B for 8% profit. B sold it to C for 12% loss, The amount paid by C, corrected to nearest rupee, is

- A 4784
- B 4691
- C 4562
- D 4448

Answer: C

Question 25

If 175 workers can dig a canal of 3150 m long in 36 days, then the number of workers require to dig a similar canal of 3900 m long in 24 days is

- A 275
- B 300
- C 325
- D 350

Answer: C

Question 26

If a train run at speed of 40kmhr reaches destination late by 11 minutes but if it runs 50 kmph it is late by 5 min only, then the distance travlled by train in Kms is

- A 20
- B 30
- C 40
- D 50

Answer: A

Question 27

The following table shows the marks of 20 students of class in Mathematics. Then the average marks of these 20 students is

Marks	80	85	90	95	100
No.of students	2	4	7	4	3

- A 89.5
- B 90
- C 90.5
- D 91

Answer: C

Question 28

An article has marked price of Rs.3600. By giving two successive discounts of 10% each instead of giving a discount of 20% on the marked price,then the gain of trader in rupees is

- A 18
- B 24
- C 36
- D 54

Answer: C

Question 29

The average of least and greatest fractions among $\frac{11}{13}, \frac{5}{6}, \frac{7}{8}, \frac{13}{15}$ is

- A $\frac{51}{60}$
- B $\frac{41}{48}$
- C $\frac{51}{30}$
- D $\frac{41}{24}$

Answer: B

Question 30

If a and b are positive integers such that $b < 100$ and $72.48 = a \left(24 + \frac{b}{100}\right)$ then $a + b =$

- A 15
- B 17
- C 19
- D 21

Answer: C

Question 31

The greatest five digit number which is a perfect square is

- A 99856
- B 99225
- C 96721
- D 93025

Answer: A

Question 32

$16^2 + 17^2 + 18^2 + \dots + 30^2$

- A 6215
- B 7725
- C 8215
- D 9535

Answer: C

Question 33

Four persons A, B, C, D can be around a track in 24, 48, 60 and 96 seconds respectively. All of them start at point p on the track simultaneously. When they meet at point p at second time the number of rounds made by C is

- A 12
- B 10
- C 8
- D 5

Answer: C

Question 34

If n is any odd integer greater than 1 then the largest natural number among the following that certainly divides $n(n^2 - 1)$

- A 24

- B 30
- C 36
- D 48

Answer: A

Question 35

The total number of divisors of $2^5 3^4 5^3$ is (including 1 and the number given)

- A 60
- B 80
- C 100
- D 120

Answer: D

Question 36

Two positive integers x, y have their g.c.d = 12 and l.c.m. = 5184. If $x, y > 12$, then $x + y =$

- A 744
- B 684
- C 516
- D 420

Answer: C

Question 37

The traffic lights at three different road crossings respectively change after every 45 seconds, 75 seconds and 100 seconds. [all the traffic lights changes simultaneously at 9:25:00 hours, then the time at which the lights again change simultaneously

- A 10:05:00
- B 9:50:00
- C 9:40:00
- D 9:45:45

Answer: C

Question 38

L.C.M. of two prime numbers a and b , ($a > b$) is 319. Then, $a - 2b =$

- A -8
- B 9
- C 8
- D 7

Answer: D

Question 39

The least number which when divided by numbers 12, 16, 20, 25 leaves 4 as remainder but when divided by 7 leaves no remainder is

- A 14006
- B 12008
- C 8004
- D 1204

Answer: D

Question 40

The sum of two numbers is 125. Their H.C.F and L.C.M are respectively 25 and 150. Then the sum of their reciprocals is

- A $\frac{1}{65}$
- B $\frac{1}{50}$
- C $\frac{1}{40}$
- D $\frac{1}{30}$

Answer: D

Question 41

A Person P sells an article to Q at a profit of 5 % Q sells it to another person at profit R And R sells it to another person at profit of s For Rs.46305 by making a profit of 5%. Then the cost price of an article (in Rs)

- A 38000
- B 39000
- C 40000
- D 42000

Answer: C

Question 42

In a school. the ratio of the number of boys and girls is 3:2. If 30% of the boys and 20% of the girls are scholarship holders, then the percentage of students that do not get scholarship is

- A 80
- B 74
- C 20
- D 26

Answer: B

Question 43

A bag contains m coins of Rs. 5/- denomination, n coins of Rs. 2/- denomination and p coins of Rs. 1/- denomination whose total value is Rs. 630/- . If $m : n : p = 2 : 3 : 5$ then the ratio of the total values of Rs. 5/-, Rs. 2/- and Rs. 1/- denomination coins in the bag is

- A 6 : 5 : 10
- B 5 : 6 : 10
- C 10 : 5 : 6
- D 10 : 6 : 5

Answer: D

Question 44

If $x : y : z = 7 : 8 : 9$, then $\frac{x}{y} : \frac{y}{z} : \frac{z}{x} =$

- A 72 : 63 : 56
- B 56 : 63 : 72
- C 648 : 448 : 771
- D 441 : 448 : 648

Answer: D

Question 45

x, y, z are positive integers such that $x^3 + y^3 + z^3 = 8072$. If $x : y = y : z = 3 : 2$, then $y =$

- A 18
- B 12
- C 8
- D 6

Answer: B

Question 46

Two positive integers whose sum is 143, cannot be in the ratio

- A 2 : 7
- B 8 : 3
- C 6 : 7
- D 4 : 9

Answer: A

Question 47

If $(36)^2 \cdot 9^4 \cdot (18)^2 = 2^a \cdot 3^b$ then $a : b =$

- A 1 : 8

B 2 : 3

C 8 : 1

D 3 : 2

Answer: C

Question 48

Given y is inversely proportional to the cube of x and that y = 2 when x = 3, Then the value of y when x = $\frac{1}{2}$ is

A 234

B 324

C 423

D 432

Answer: D

Question 49

If $\frac{x}{a} = \frac{y}{b} = \frac{z}{c}$ and l, m, n are any positive numbers then these ratios are also equal to:

A $\left(\frac{l^2x^2 + m^2y^2 + n^2z^2}{la^2 + mb^2 + nc^2} \right)^{\frac{1}{2}}$

B $\left(\frac{lx^2 + my^2 + nz^2}{l^2a^2 + m^2b^2 + n^2c^2} \right)^{\frac{1}{2}}$

C $\left(\frac{lx^2 + my^2 + nz^2}{la^2 + mb^2 + nc^2} \right)^{\frac{1}{2}}$

D $\left(\frac{lx^2 + my^2 + nz^2}{la^2 + mb^2 + nc^2} \right)$

Answer: C

Question 50

If 55% of 880 is 80 more than $\frac{4}{5}$ of x, then x =

A 202

B 303

C 404

D 505

Answer: D

Question 51

If the number 19585*2, is divisible by 3, then the smallest digit in the place of * is

A 7

B 5

C 2

D 0

Answer: D

Question 52

If the number $45135*2$, is divisible by 8, then the smallest whole number in the place of * is

A 1

B 2

C 4

D 6

Answer: A

Question 53

If 4th October is 2008 is Saturday, then the day of the week on 28th may 2014 is

A Monday

B Wednesday

C Friday

D Sunday

Answer: B

Question 54

The time between 2 hours and 3 hours, when the minutes hand and hours hand coincide is 2 hours x minutes when x=:

A $\frac{120}{11}$

B $\frac{100}{11}$

C $\frac{80}{11}$

D $\frac{60}{11}$

Answer: A

Question 55

The minutes hand of an incorrect clock overtakes the hours hand at an interval of 63 minutes, Then the time it gains in a day, in minutes, is

A $56\frac{8}{77}$

B 39

C 54

D $48\frac{6}{11}$

Answer: A

Question 56

Two trains of same length 80 meters, running in opposite direction with same speed cross each other in 3 seconds. The speed of each train is (km/hr)

- A 66
- B 78
- C 90
- D 96

Answer: D

Question 57

Two persons A and B are 45 km apart. If they travel in opposite direction to each other, they meet in 3 hrs. If they travel in the same direction they meet in 5 hrs. If A travels faster than B, then the speed of A, in kmph, is

- A 3
- B 6
- C 12
- D 15

Answer: C

Question 58

A car reached a distance of 340 km in 4 hours .It travels some distance at a speed of 90 kmph and the remaining at speed of 60 kmph,then distance travelled with speed of 60 kmph , in kilometers, is

- A 40
- B 120
- C 240
- D 300

Answer: A

Instructions

Read the data given in the table below and answer questions.

School	No. of students passing in the examination	Pass Percentage of students
P	360	20
Q	520	80
R	540	90
S	420	70

Question 59

The total number of students appeared in the examinations is

- A 1840

- B 2400
- C 3200
- D 3650

Answer: D

Question 60

The total number of students who failed in the examinations from the schools Q, R and S is

- A 370
- B 320
- C 260
- D 240

Answer: A

Instructions

For the following questions answer them individually

Question 61

P lends Rs. 15,000 to Q for a simple interest 8% per annum and Q lends the same amount to R for a simple interest 11% per annum. Then the gain of Q in 3 years, in rupees, is

- A 450
- B 900
- C 1350
- D 1800

Answer: C

Question 62

In 4 year Rs.6000 amount became Rs.8500 for some rate of simple interest. Then period required for Rs.1200 to become an amount of 1825 at same rate of interest is

- A 5 years
- B 6 years
- C 4 years
- D 8 years

Answer: A

Question 63

A sum of money becomes Rs. 1,08,000/- after 3 years and becomes Rs. 1,92,000/- after 9 years on same rate of compound interest. Then, that sum of money is (in rupees)

- A 96,000
- B 90,000

C 85,000

D 81,000

Answer: D

Question 64

A sum of money is doubled at some compound interest in 8 years. The number of years in which the amount becomes 4 times with the same rate of interest is

A 12

B 14

C 16

D 32

Answer: C

Question 65

An amount of Rs. 5,00,000/- becomes Rs. 5,51,250/- on some compound interest compounded half-yearly in one year. Then the rate of compound interest is

A 12 %

B 10 %

C 9 %

D 8 %

Answer: B

Question 66

A person invested in three different schemes A, B and C at the rates of simple interests-8%, 10% and 12% respectively. The amount invested in the scheme C is equal to 225% of the amount invested in scheme A and is also equal to 90% of the amount invested in scheme B. If the total interest earned by him in one year is Rs. 48,000/-, then the amount "the" person invested in scheme C is (in rupees)

A 1,70,000

B 1,80,000

C 1,90,000

D 2,00,000

Answer: B

Question 67

A Bank lends Rs. 30,00,000/- to a person P at 12.5% simple interest and Rs. 10,00,000/- to another person Q at 10.5% simple interest, for t years. If the Bank received an interest of Rs. 16,80,000/- at the end of the period t, then t =

A $2\frac{1}{2}$

B 3

C $3\frac{1}{2}$

D 4

Answer: C

Question 68

Two persons A and B undertake to paint a house for Rs. 54,000/-, A alone can paint the house in 40 days and Balone canpaint the house in 45 days, A and B along with a third person C complete painting in 20 days. Then, the share of C is (in rupees)

A 6000

B 5000

C 4000

D 3000

Answer: D

Question 69

A person A takes $7\frac{1}{2}$ days to finish $\frac{5}{8}$ of a work then the number of days required for A to finish the complete work is

A 9

B 12

C 15

D 18

Answer: B

Question 70

A and B can complete a work in 20 days .B and C can complete the same work in 24 days.The work was started by A and he work for 8 days,then after B works for 11 days and the C completes the remaining work in 22 days,then the number of days required for c alone to complete the work is

A 40

B 36

C 34

D 32

Answer: A

Question 71

A person P can complete a work in 40 days . A second person Q can complete the same work in 35 days. Both P and Q work together for 14 days and then P goes away. The number of days that Q takes to complete the remaining work is

A $12\frac{1}{4}$

B $10\frac{1}{2}$

C $9\frac{3}{4}$

D $8\frac{3}{4}$

Answer: D

Question 72

Twenty men complete a work in 16 days. Twenty women complete the same work in 18 days. If all these men and women work together, then the number of days required to complete that work

A $10\frac{1}{3}$

B $9\frac{8}{17}$

C $9\frac{1}{15}$

D $8\frac{8}{17}$

Answer: D

Question 73

A person A can complete a work in 15 days working 8 hours daily. A second person B can complete the same work in 20 days working 7 hours a day. If both A and B work together, working 7 hours a day, then the number of days required to complete that work is

A $8\frac{5}{13}$

B $9\frac{3}{13}$

C $9\frac{6}{13}$

D $10\frac{1}{4}$

Answer: B

Question 74

Two persons A and B can do a work in 24 and 30 days respectively. After working together for some days, left. B finished the remaining work in 12 days. Then, the number of days that A worked is

A 8

B 9

C 10

D 11

Answer: A

Question 75

A merchant marked his goods 25% above the cost price and then allows a discount of 5%. Then the profit percent in this transaction is

A $6\frac{1}{4}$

B 10

C $12\frac{1}{2}$

D 15

Answer: A

Question 76

The Profit Earned by selling an article for Rs.2500 is equal to 7 times the loss if the same is sold for 2100. Then the selling price of an article in (Rs) to make a profit of 20 percent is

A 2420

B 2580

C 2620

D 2680

Answer: B

Question 77

A shopkeeper sold an article at a certain price. If it is sold at 80% of that price, then his loss would be 8%. Then, the profit percent at the original selling price is

A 20

B 16

C 15

D 12

Answer: C

Question 78

A person A purchased some pens for Rs. 350 and sold them for Rs. 450. Another person B purchases some pens for Rs. 540 and sold them for Rs. 660. Then the difference between their profit percents is

A $\frac{400}{63}$

B $\frac{200}{9}$

C $\frac{200}{7}$

D $\frac{200}{63}$

Answer: A

Question 79

A person travels $\frac{2}{3}$ of distance x km with a speed of 4 kmph and the remaining distance with a speed of 5 kmph. If the total time taken for the journey is 56 minutes, then $x =$

A 2

B 3

C 4

D 6

Answer: C

Question 80

The nearest year after 2000 having same calendar as that of 2000 is

A 2008

B 2016

C 2024

D 2028

Answer: D

Question 81

A person put one coin at 1'O clock, two coins at 2'O clock, 3 coins at 3'O clock and so on in a box. Then the number of coins he has put in the box between 6:30 am to 6:30pm in a day is

A 25

B 42

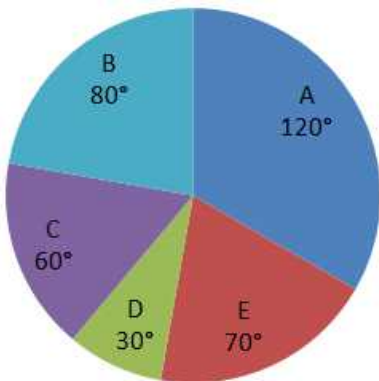
C 60

D 78

Answer: D

Instructions

The following diagram shows the expenditure of a company on different heads A, B, C, D, E in the year 2018. Based on the information given in below figure answer the following questions



Question 82

If the amount spent on head A is Rs. 90,000 more than the amount spent on C, then the amount spent on E in rupees is

A 95,000

B 1,00,000

C 1,05,000

D 1,20,000

Answer: C

Question 83

If the amount spent on B is Rs. 1,96,000, then the amount spent on A and E together, in rupees, is

- A 3,92,000
- B 4,08,000
- C 4,32,600
- D 4,65,500

Answer: D

Instructions

For the following questions answer them individually

Question 84

A dealer gets 10% of profit after giving 10% discount on the marked price of an article. If the cost price of the article is Rs. 9000, its marked price, in rupees, is

- A 10,800
- B 10,890
- C 10,900
- D 11,000

Answer: D

Question 85

By selling an article each for Rs.600/- a trader gets 10% profit on one end and 10% loss on other. The result in the transaction is

- A gain of 1%
- B loss of 1%
- C gain of 5%
- D no loss, no gain

Answer: B

Question 86

Consider the following statements.

- A. If the radius of a sphere is increased by 8%, then the Percentage increase in its surface area is 20.86.
- B. If the side of a cube is increased by 12%, then the percentage increase in its surface area is 25.44.
- C. If the radius of a circle is increased by 16%, then the percentage increase in its area is 34.56.

The correct statements among these are

- A A,B only
- B B,C only
- C A,C only
- D all of A,B,C

Answer: B

Question 87

The area of the regular hexagon of side 12 cm in square centimeters, is

- A $216\sqrt{3}$
- B $36\sqrt{3}$
- C $6\sqrt{3}$
- D $144\sqrt{3}$

Answer: A

Question 88

The area of a rectangle is 6 times that of a square. If the length of the rectangle is 16 cm more and the breadth of the rectangle is 8 cm more than the side of the square, then the perimeter of the rectangle, in cm, is

- A 40
- B 48
- C 96
- D 80

Answer: D

Question 89

A rectangular wooden piece of dimensions $8\text{ cm} \times 6\text{ cm} \times 5\text{ cm}$ cut in to pieces of dimensions $\frac{5}{4}\text{ cm} \times \frac{3}{8}\text{ cm} \times \frac{1}{4}\text{ cm}$. then the number of pieces are

- A 2^5
- B 2^7
- C 2^9
- D 2^{11}

Answer: D

Question 90

If a right circular cone has height 56 cm and base radius 42 cm, then its curved surface area, in square centimeters, is (Take $\pi = \frac{22}{7}$)

- A 1320
- B 2640
- C 4620
- D 9240

Answer: D

Question 91

The cost of a fencing around a circular field at the rate of Rs. 45 per meter is Rs. 15,840. Then the area of the field, in square meters, is (Take $\pi = \frac{22}{7}$)

- A 9856
- B 4927
- C 1408
- D 2816

Answer: A

Question 92

A wheel makes 60 revolutions in covering a distance of 990 meters. The radius of the wheel, in meters, is (Take $\pi = \frac{22}{7}$)

- A 2.125
- B 2.5
- C 2.625
- D 2.75

Answer: C

Question 93

The volume of a cube in cubic feet whose total surface area is 486 square feet, is

- A 216
- B 343
- C 512
- D 729

Answer: D

Question 94

By what percentage should the radius of a sphere be increased so that the volume increases by 200%?

- A $(\sqrt[3]{3} - 1)100$
- B $(\sqrt{3} - 1)100$
- C $(\sqrt[3]{3} - 1)$
- D $(\sqrt{3} - 1)$

Answer: A

Question 95

The length and breadth of a rectangle are 100 cms. and 60 cms. If the length increases by 5% and the breadth decreases by 4%, then, the error percentage in the area calculated from these measurements is

- A 1.4
- B 1.2

C 1.0

D 0.8

Answer: D

Question 96

The sum of all two digit numbers which leave remainder 4 when divided by 11 is

A 15

B 92

C 400

D 428

Answer: D

Question 97

If in a leap year, January 8th is a Sunday, the day on August 15th in the same year is

A Monday

B Wednesday

C Friday

D Sunday

Answer: B

Question 98

If A earns 50% more than B and B earns x % less than A then x =

A $66\frac{2}{3}$

B $33\frac{1}{3}$

C 50

D 25

Answer: B

Question 99

The largest positive integer k such that 12^k divides $(109)!$ is

A 50

B 51

C 52

D 53

Answer: C

Question 100

The number of positive integral divisors of 37800 is

- A 24
- B 96
- C 120
- D 180

Answer: B

Instructions

In questions pick out the odd thing among the given items.

Question 101

15, 35, 99, 143

- A 99
- B 143
- C 35
- D 15

Answer: A

Question 102

56, 34, 14, 7

- A 7
- B 14
- C 34
- D 56

Answer: C

Question 103

A, D, I, P, T, Y

- A I
- B P
- C T
- D Y

Answer: C

Question 104

9, 49, 81, 121, 169, 289

- A 49
- B 81
- C 121
- D 169

Answer: B

Question 105

ZA, YE, XI, WO, TU

- A ZA
- B XI
- C WO
- D TU

Answer: D

Question 106

343, 1331, 2197, 4913, 6859, 9261

- A 343
- B 2197
- C 6859
- D 9261

Answer: D

Question 107

1156, 1444, 1764, 2430

- A 1764
- B 1444
- C 1156
- D 2430

Answer: D

Question 108

Beetroot, Brinjal, Carrot, Potato

- A Potato
- B Carrot
- C Brinjal

D Beetroot

Answer: C

Question 109

Reservoir, River, Tank, Watershed

A Reservoir

B Watershed

C Tank

D River

Answer: D

Question 110

21V23X, 13N15P, 9J11L, 5F7H

A 5F7H

B 9J11L

C 13N15P

D 21V23X

Answer: A

Question 111

L012, UF06, VE22, ZA26

A ZA26

B VE22

C L012

D UF06

Answer: D

Instructions

In below questions you find the left two terms/group of letters which have a relation between them. Fill the blank on the right with one of the options given so that the terms/group of letters on the right have the same relation as the first two.

Question 112

FILM : 40 :: MILK :

A 45

B 50

C 55

D 60

Answer: A

Question 113

MAIL : PIUN :: TOUR :

- A VUIR
- B WUET
- C VAIR
- D WAET

Answer: D

Question 114

CAST : 43 :: RIPE :

- A 36
- B 46
- C 48
- D 56

Answer: C

Instructions

Choose a suitable option to fill in the blank given below:

Question 115

School : Head Master :: College : Principal :: University :

- A Governor
- B Chancellor
- C Vice-Chancellor
- D Director

Answer: C

Question 116

Amritsar : Golden Temple :: Ajmer : Darga :: Hyderabad :

- A Charminar
- B Macca Masjid
- C Golkonda
- D Falaknuma Palace

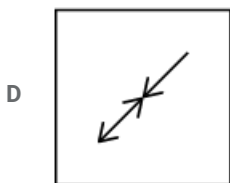
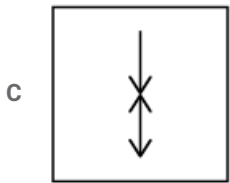
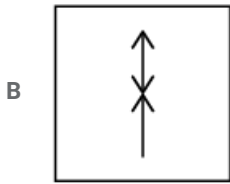
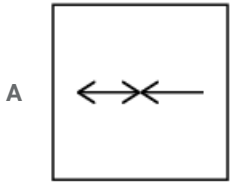
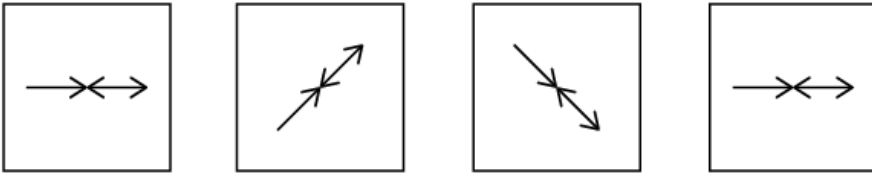
Answer: B

Instructions

For the following questions answer them individually

Question 117

Four figures are given below. The next figure is

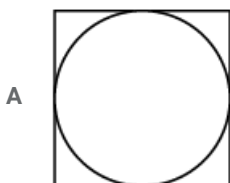
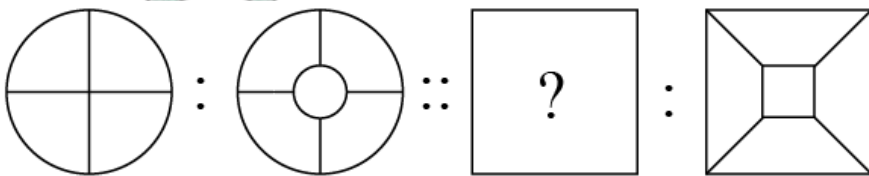


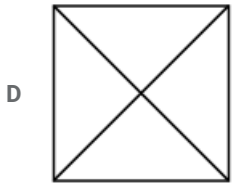
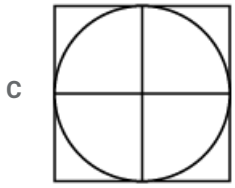
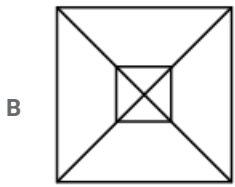
Answer: C

Instructions

In problems there is a relation between the left two figures. Choose a correct figure from the given options such that the same relation exist with the two figures on the right.

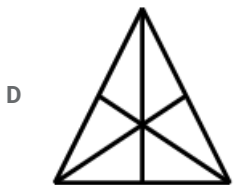
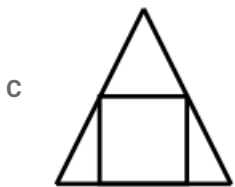
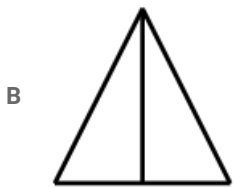
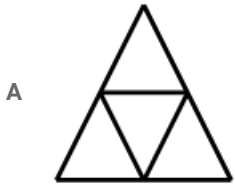
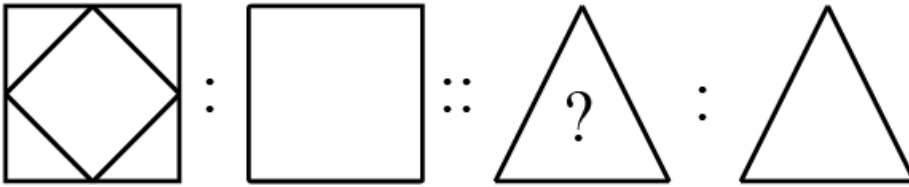
Question 118





Answer: D

Question 119

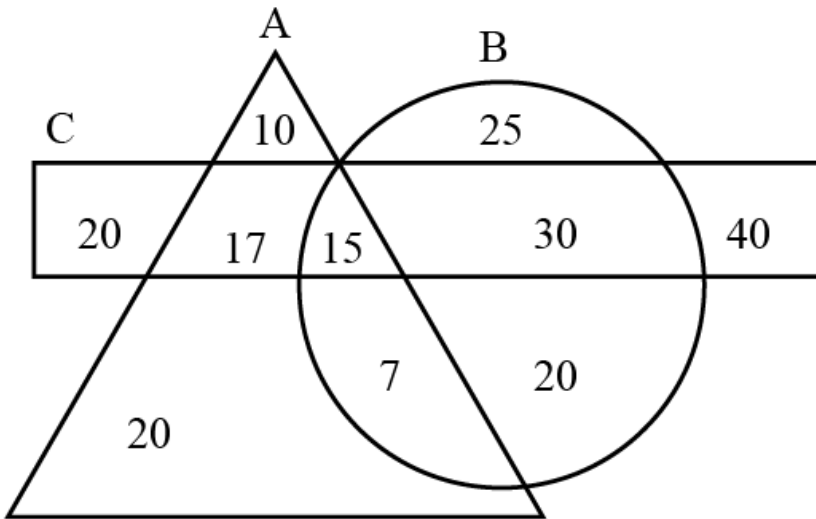


Answer: A

Instructions

Answer the following questions below based on the information given below.

In the figure given below the triangular region denotes the persons who read newspaper A. The circular region denotes the persons who read newspaper B and the rectangular region denotes the persons who read newspaper C.



Question 120

Number of persons who read only newspaper A is

- A 30
- B 47
- C 54
- D 69

Answer: A

Question 121

Number of persons who read both newspapers A and B is

- A 45
- B 22
- C 32
- D 52

Answer: B

Question 122

Number of persons who read only one of the newspapers A, B and C is

- A 120
- B 135
- C 145
- D 85

Answer: B

Question 123

Number of persons who read all three newspapers is

- A 32
- B 22
- C 45
- D 15

Answer: D

Question 124

Number of persons who read either newspaper B or newspaper C is

- A 108
- B 121
- C 219
- D 174

Answer: D

Instructions

For the following questions answer them individually

Question 125

If \triangle denotes addition, \square denotes multiplication, $*$ denotes subtraction and ∇ denotes division then $3 * 4 \square 5 \triangle 6 \nabla 2 =$

- A -14
- B $\frac{1}{2}$
- C -2
- D 12

Answer: A

Question 126

From point P, a man rides a cycle 9 km towards East. Then, he rides the cycle 2 km towards North. From there, he rides the cycle 3 km towards East. Finally he rides the cycle 3 km towards North to a point Q. Then the distance between the points P and Q is (in km)

- A 17
- B 15
- C 13
- D 12

Answer: C

Question 127

A person walks 3 km towards East, then walks 3 km towards South, then walks 7 km towards West and stops. The distance from the starting point and the end point is (in km)

- A 5
- B 7
- C 9
- D 13

Answer: A

Question 128

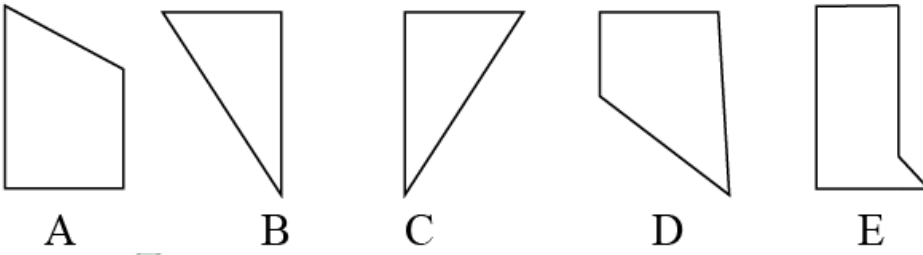
$P + Q$ means P is the daughter of Q, $P * Q$ means P is the husband of Q. If $P + Q * R$ then which of the following is true?

- A R is the mother of P
- B R is the sister of P
- C R is the mother in law of P
- D R is the brother of P

Answer: A

Question 129

Which of the three figures from the following five figures A, B, C, D and E from a square?

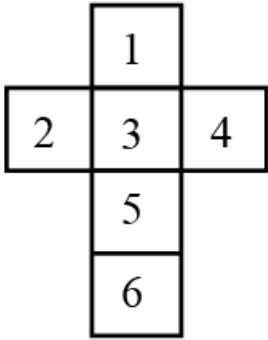


- A BCD
- B ACD
- C BCE
- D ABE

Answer: A

Question 130

If the paper in the following shape is folded to form a die then



- (a) 1 lies opposite 6.
- (b) 2 lies opposite 4.
- (c) 3 lies opposite 5.

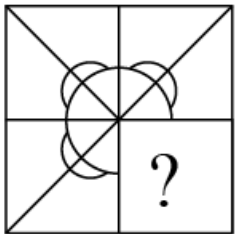
Then the true statement(s) among (a), (b), (c) is(are)

- A b only
- B a only
- C b and c
- D a and c

Answer: A

Question 131

Among the given four options, which one when placed in the blank space of given figure would complete the pattern symmetrically?



- A
- B
- C
- D

Answer: A

Question 132

If the image of a clock in a mirror shows the time as 6:30, then the actual time shown by the clock is

- A 6:30
- B 9:30
- C 5:30
- D 2:30

Answer: C

Question 133

If P is the brother of Q, Q is the daughter of R and S is the father of P, then how is R related to S?

- A Husband
- B Brother
- C Wife
- D Grand Father

Answer: C

Question 134

If A is B's brother, B is C's sister, and C is the mother of the a D, then D is A's

- A Sister
- B Brother
- C Uncle
- D Nepew

Answer: D

Question 135

Showing a lady, a man said "The son of her only brother is the brother of my wife", then the relation between that lady and the man is

- A the lady is a sister of the man's father-in-law
- B the lady is the man's sister-in-law
- C the lady is the man's mother-in-law
- D the lady is the man's sister

Answer: A

Instructions

Read the following:

Six students P, Q, R, S, T and U sit on the ground at the vertices of a regular hexagon. P is neither adjacent to Q nor R. S is neither adjacent to R nor T. Q, R are adjacent. U is in the middle of S and R. On the basis of the information given above answer the questions.

Question 136

Who sits opposite to T ?

- A S
- B Q
- C R
- D U

Answer: D

Question 137

If one neighbour of P is T, then who is the other one?

- A S
- B R
- C U
- D Q

Answer: A

Question 138

Which of the following is not a pair of neighbours?

- A P and S
- B U and R
- C Q and T
- D T and R

Answer: D

Instructions

For the following questions answer them individually

Question 139

There are 39 persons standing in a line. When counted from left to right. A and B are at 9^{th} and 27^{th} positions in the line. If C is between A and B and if there are five persons between B and C, then the position of C in the line from the left is

- A 21
- B 22
- C 20
- D 23

Answer: A

Instructions

To answer the following questions consider the following information.
Given that

$U = \{1, 2, 3, \dots, 500\}$

A = the set of all multiples of 6 in U,

B = the set of all multiples of 15 in U and

C = the set of all multiples of 10 in U.

Let $|S|$, denotes the number of elements in a set S. Then

Question 140

$|A \cup B| =$

- A 90
- B 100
- C 110
- D 120

Answer: B

Question 141

$|(A \cup B \cup C)| =$

- A 126
- B 124
- C 120
- D 100

Answer: E

Question 142

The number of integers in U that are divisible by exactly any two of 2, 3, 5 is

- A 25
- B 30
- C 35
- D 24

Answer: E

Instructions

Consider the following information.

In a hostel there are 220 students. Out of them 105 read newspaper A, 90 read newspaper B, 75 read newspaper C. 35 read both A and B. 20 read both A and C, 23 read both B and C and 9 read all three newspapers. Then

Question 143

Number of students who do not read any newspaper is

- A 21
- B 20
- C 19

D 18

Answer: C

Question 144

Number of students who read only one newspaper is

A 141

B 151

C 147

D 157

Answer: A

Question 145

Number of students who read exactly two newspapers is

A 78

B 51

C 64

D 58

Answer: B

Question 146

Number of students who read newspapers B and C but not A is

A 23

B 20

C 17

D 14

Answer: D

Question 147

Number of students who read two or less number of newspapers is

A 192

B 201

C 211

D 189

Answer: C

Instructions

For the following questions answer them individually

Question 148

In a college having 600 science students, 450) students are doing Physics, 300 students are doing Mathematics and 400 students are doing Chemistry On These students 180 students are doing both Physics and Mathematics and 350 students are doing Physics and Chemistry 200 students are studying all three subjects. Then the number of students doing both Mathematics and Chenistry is

- A 280
- B 260
- C 240
- D 220

Answer: D

Question 149

A misfit in the following sequence

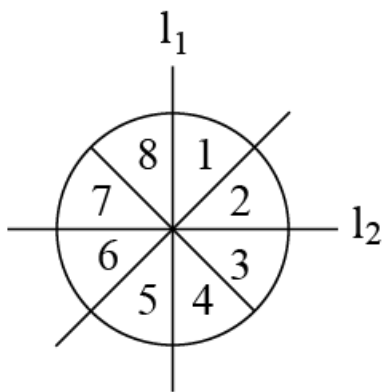
1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, ...

- A 1682
- B 1685
- C 1687
- D 1689

Answer: D

Question 150

In the following figure, the regions 1, 2, 3, 4, 5, 6, 7, 8 are shaded with the colours Violet (V), Purple (P), Blue (B), Yellow (Y), Orange (O), Red (R), Green (G) and Maroon (M) respectively. If the figure is reflected with respect to l_1 and then reflected with respect to l_2 then the new order of the colours in the clockwise direction



- A ORMGBYVP
- B ORGMVPBY
- C YORGMVPB
- D VPBYORGM

Answer: B

Question 151

The population of a town at present is 3,00,000. The growth rate of the population in Successive years is expected to be 6%, $7\frac{1}{2}\%$, 9%, $10\frac{1}{2}\%$ of the present population The expected population at the end of 8th year from now is

- A 5,70,000
- B 5,50,000
- C 5,30,000
- D 5,10,000

Answer: A

Question 152

Observe the statements given below:

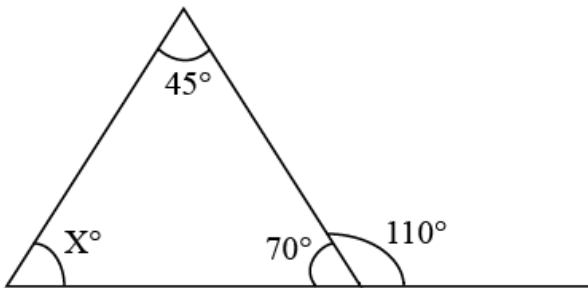
- I. The sum of the interior angles of a regular pentagon is 540° .
- II. Each interior angle of a regular polygon of n sides is $(l - \frac{2}{n})\pi$, Then

- A (I) and (II) are both true
- B (I) is true but (II) is false
- C (I) is false but (II) is true
- D (I) and (II) are both false

Answer: A

Question 153

The value of x in the figure given below is



- A 45
- B 25
- C 55
- D 65

Answer: D

Question 154

When thirty persons stand in a row the positions of A and B from left are seventh and twenty seventh respectively. Another person C standing between them has exactly five persons between Band C. If P is the middle person among those standing between A and C then the position of p from the left is

- A 12
- B 13
- C 14

D 15

Answer: C

Question 155

The cost of 2 pens is the same as the cost of 5 pencils. If it costs Rs. 34 for buying 4 pens and 7 pencils then the cost of 7 pens and 4 pencils (in rupees) is

A 74

B 47

C 43

D 56

Answer: C

Question 156

A train starting at a station at 1:10 pm reaches its destination at 2:20 pm the same day. If the speed of the train is 48 kmph then the distance (in kms) travelled by the train is

A 60

B 72

C 84

D 56

Answer: D

Question 157

A water glass in the shape of a frustum of a cone of height 14 cm. The diameters at the ends are 4 cm and 2 cm. Then the volume of the glass, in cubic centimeters, is (Take $\pi = \frac{22}{7}$)

A $78\frac{4}{3}$

B $92\frac{5}{3}$

C $102\frac{2}{3}$

D $106\frac{1}{3}$

Answer: C

Question 158

The students of a class are standing in some rows. All the rows have the same number of students. If 3 students are added in each row, then there will be one row less. If three students are removed in each row, then there will be two rows more. Then the number of students in the class is

A 18

B 24

C 36

D 48

Answer: C

Instructions

GDP growth rate of some countries for two years 2015-16, 2016-17 are tabulated below, Observe the table and answer the following questions.

Country	2015-2016	2016-2017
A	6.6	8
B	7.3	7.4
C	1.2	3.7
D	4.4	4.7
E	2.5	3.4
F	3.1	2.6

Question 159

The country which witnessed the highest percentage of GDP growth rate next to C is

- A A
- B E
- C B
- D D

Answer: B

Question 160

The country that witnessed the lowest percentage of GDP growth rate is

- A C
- B D
- C E
- D F

Answer: D

Instructions

For the following questions answer them individually

Question 161

The number that does not suit in the following sequence is 5042, 5043, 5044, 5045, 5046, 5047, 5048, 5049, 5050, 5051, ...

- A 5049
- B 5050
- C 5051
- D 5048

Answer: C

Question 162

If $T_n = \frac{2(n+2)}{n(n+1)}$, for $n = 1, 2, 3, \dots$. Then $T_6 =$

- A $\frac{8}{18}$
- B $\frac{8}{19}$
- C $\frac{8}{20}$
- D $\frac{8}{21}$

Answer: D

Instructions

Answer the questions using the following information.

Given that

1 USD = 70.99 INR, | AUD = 0.708 USD, | EURO = 1.137 USD, and | NZD = 9.679 USD, (Here USD (U) = US Dollar, AUD (A) = Australian Dollar, EURO (FE) = European Union Currency, NZD (N) = Newzealand Dollar, INR (1) = Indian rupee)

Question 163

Increasing order of exchange values of INR (I), NZD (N), EURO (E), AUD (A) with USD is

- A I, N, E, A
- B E, I, N, A
- C I, N, A, E
- D I, E, A, N

Answer: C

Question 164

The currency among the following which has the highest exchange value with EURO is

- A U
- B I
- C A
- D N

Answer: A

Question 165

The currency which has the least exchange value with USD is

- A N
- B A
- C E
- D I

Answer: D

Question 166

The currency among the following which has the highest exchange value with AUD is

- A U
- B I
- C N
- D E

Answer: D

Instructions

For the following questions answer them individually

Question 167

In a certain code if the word WRITE is Coded as 136 and the word STUDY is coded 157, then in the same code the word 'READ' is Coded as

- A 25
- B 50
- C 75
- D 125

Answer: B

Question 168

In a code language, the word 'MISTER' is coded as SGWWNS and the word 'FOREST' is coded as 'UUHVTL', then the code for the word 'PERSON', in the same code language is

- A OPVUJW
- B OQVYIV
- C OQWVKV
- D OPWUKW

Answer: B

Question 169

In a code the letters of the English alphabet are coded by numbers as follows.

$A \leftrightarrow 1, Z \leftrightarrow 2, B \leftrightarrow 3, Y \leftrightarrow 4, C \leftrightarrow 5, X \leftrightarrow 6, \dots$

Then the code for COME TODAY is

- A 14, 24, 7, 1 4, 5, 24, 25, 9
- B 5, 24, 25, 9 14, 24, 7, 1, 4
- C 5, 24, 25, 9 12, 24, 7, 1, 4
- D 5, 24, 25, 9 12, 26, 7, 1, 4

Answer: B

Question 170

In a certain code language HYDERABD is coded as KBGHUDEDG. Then WARANGAL will be coded in that language as

- A ZDVDQJDO
- B ZDURQIDO
- C ZDUDPIDO
- D ZDURQKDO

Answer: E

Question 171

In a certain code language, if AGRA is coded as 1493241, then the code of BHADRA in that code language is

- A 4641163241
- B 4641162341
- C 4646113241
- D 464324111

Answer: A

Question 172

In a certain code language, if ADILABAD is coded as 76547276 and WARANGAL is coded as 37170874, then in the same code language BANGLA is coded as

- A 271347
- B 270437
- C 273047
- D 270847

Answer: D

Question 173

If the code for A is 1, that of B is 3, that of C is 5,..., then the code for G is

- A 13
- B 15
- C 19
- D 17

Answer: A

Question 174

If PRASAD is coded as 123435 then match the words of List-I to the codes of List-II.

List-I	List-II
A) SARADA	I) 132353
B) DASARA	II) 314323
C) PARADA	III) 432353
D) APSARA	IV) 534323

A A-III, B-IV, C-II, D-I

B A-III, B-IV, C-I, D-II

C A-IV, B-III, C-II, D-I

D A-IV, B-III, C-I, D-II

Answer: B

Question 175

If $-$ denotes addition, $+$ denotes multiplications and \times denotes division, then $\{(39 \times 13) + 6\} - 8 =$

A 26

B 62

C 34

D 42

Answer: A

Question 176

Read the following:

In a certain code language MONKEY is coded as LNMJDX then consider the following.

Assertion(I): The code of FRANCE is EQZMBD.

Reason(II): The pattern of the given code is $A \rightarrow Z, B \rightarrow A, C \rightarrow B, D \rightarrow C, \dots$

A (I) and (II) are correct and (II) is the correct explanation of (I).

B (I) and (II) are correct and (II) is not the correct explanation of (I).

C (I) is true, (II) is false.

D (I) is false, (II) is true.

Answer: A

Question 177

In a code language BREAK is written as XHUYO. Then, FLUTE is coded in that code language as

A TNEFU

B TMDEW

C UNFEV

D UNEFW

Answer: A

Question 178

If in a code language DREAM is coded as FTGCO, then CURSE is coded in that code language as

- A EVSWH
- B FXUVH
- C FYTUG
- D EWTUG

Answer: D

Instructions

In a certain coding every consonant English alphabet is coded as the immediate next consonant and each vowel is coded as its previous vowel. Based on this information answer the following questions.

Question 179

The code for the word 'MANGO' is

- A NEPHU
- B NBOHP
- C NUOHI
- D NUPHI

Answer: D

Question 180

The string of letters that is coded as 'CDEFG' is

- A BCAEF
- B BCIDF
- C BCEIF
- D BCADF

Answer: B

Question 181

The code for the word 'LITMUS' is

- A MEVNAT
- B MEVNOT
- C MEUNVT
- D MEUNUT

Answer: B

Instructions

Data Sufficiency: In each of the following Questions you find a question followed by two statements labelled (I) and (II). You have to decide whether these statements answer the given questions. Mark your option as

Question 182

Who is tallest among A, B, C, D, E?

I) D is taller than B, but shorter than E

II) C is taller than both B and E but shorter than A

- A if statement (I) alone can answer the question
- B if statement (II) alone can answer the question
- C if both statements (I) and (II) are required to answer the question
- D if statements (I) and (II) together also can't answer the question.

Answer: C

Question 183

What is the volume of the right circular cone?

I) Base radius of the cone is 12 cm,

II) Semi vertical angle of the cone is 45°

- A if statement (I) alone can answer the question
- B if statement (II) alone can answer the question
- C if both statements (I) and (II) are required to answer the question
- D if statements (I) and (II) together also can't answer the question.

Answer: C

Question 184

What is the total number of divisors of the positive integer n?

I) n is product of distinct numbers.

II) m is the cube of a prime numbers.

- A if statement (I) alone can answer the question
- B if statement (II) alone can answer the question
- C if both statements (I) and (II) are required to answer the question
- D if statements (I) and (II) together also can't answer the question.

Answer: B

Question 185

Who is tallest among A, B, C?

I) A is taller than B.

II) B is shorter than C.

- A if statement (I) alone can answer the question
- B if statement (II) alone can answer the question
- C if both statements (I) and (II) are required to answer the question

D if statements (I) and (II) together also can't answer the question.

Answer: D

Question 186

What is the rate of simple interest?

I) Principal is Rs. 3,000

II) Interest is Rs. 450

A if statement (I) alone can answer the question

B if statement (II) alone can answer the question

C if both statements (I) and (II) are required to answer the question

D if statements (I) and (II) together also can't answer the question.

Answer: D

Question 187

Let m and n be positive integers. Is n even?

I) $m \times n$ is an odd integer.

II) $m + n$ is an odd integer.

A if statement (I) alone can answer the question

B if statement (II) alone can answer the question

C if both statements (I) and (II) are required to answer the question

D if statements (I) and (II) together also can't answer the question.

Answer: A

Question 188

What is the area of the right angled isosceles triangle?

I) The angles of the triangle are $90^\circ, 30^\circ, 60^\circ$.

II) Length of the hypotenuse is $15\sqrt{2}$ cm.

A if statement (I) alone can answer the question

B if statement (II) alone can answer the question

C if both statements (I) and (II) are required to answer the question

D if statements (I) and (II) together also can't answer the question.

Answer: B

Question 189

What is the sum of the ten terms of the arithmetic progression?

(I) The first term is 10.

(II) The tenth term is 2.

A if statement (I) alone can answer the question

B if statement (II) alone can answer the question

- C if both statements (I) and (II) are required to answer the question
- D if statements (I) and (II) together also can't answer the question.

Answer: C

Question 190

Is A, a sister of B?

I) B is asister of A

II) A is father of two children P and Q

- A if statement (I) alone can answer the question
- B if statement (II) alone can answer the question
- C if both statements (I) and (II) are required to answer the question
- D if statements (I) and (II) together also can't answer the question.

Answer: B

Question 191

Did the person A get profit?

I) The person A purchased 9 bananas for Rs. 30.

II) The person A sold 8 bananas out of 9 bananas for Rs. 32.

- A if statement (I) alone can answer the question
- B if statement (II) alone can answer the question
- C if both statements (I) and (II) are required to answer the question
- D if statements (I) and (II) together also can't answer the question.

Answer: C

Instructions

For the following questions answer them individually

Question 192

The missing terms in the following sequence in the order they appear are

S, 1, 9, W, 2, 3, E, 0, 5, 1,

- A N, 4
- B N, 7
- C N, 6
- D N, 5

Answer: A

Question 193

The missing term of the sequence 1, 3, 6, 10, 15,....., 28, 36 is

- A 16
- B 18

C 21

D 25

Answer: C

Question 194

The next term in the sequence CF, FI, IL, LO is

A OP

B OQ

C OR

D OS

Answer: C

Question 195

The next term in the sequence $\begin{matrix} Z & X & V & T \\ A, & C, & E, & G \end{matrix}$ is

A $\begin{matrix} S \\ H \end{matrix}$

B $\begin{matrix} R \\ I \end{matrix}$

C $\begin{matrix} S \\ I \end{matrix}$

D $\begin{matrix} R \\ H \end{matrix}$

Answer: B

Question 196

The next term in the sequence B, C, E, G, K, M is

A Q

B O

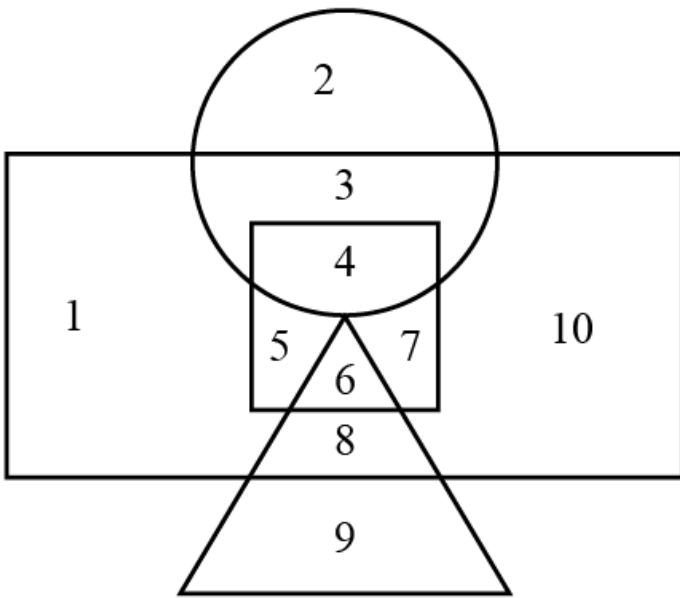
C P

D R

Answer: A

Instructions

Based on the below information Answer the questions. In the figure given a below the square region represents post-graduates, the rectangle represents graduates, circle represents private employees while the triangle represents Government employees.



Question 197

The region/regions representing non-graduates employed either in Government or private is/are

- A 2
- B 9
- C 2 and 9
- D 1 and 10

Answer: C

Question 198

The region 4 represents

- A Graduate Government employees
- B Graduate Private employees
- C Post-graduate Government employees
- D Post-graduate Private employees

Answer: D

Question 199

The regions representing Post-graduate unemployed are

- A 5,6,7
- B 5,6
- C 6,7
- D 5,7

Answer: D

Question 200

1, 5, 7 and 10 together represent

- A Unemployed graduates
- B Employed graduates
- C Unemployed post-graduates
- D Employed post-graduates

Answer: A

