Previous Year Paper

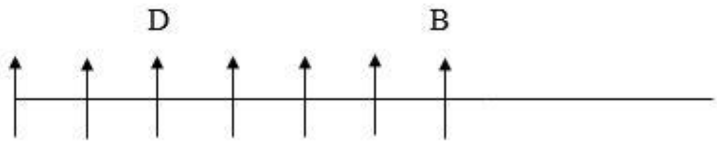
IBPS RRB Officer Assistant Prelims

Direction:- An Uncertain number of persons sit in a row and all face north. Only six persons sit between A and C. B sits immediate right of P and fourth to the right of C. E is an immediate neighbour of A and sits fifth to the right of F. A sits fifth from left end of the row. Three persons sit between B and D who is third from one of the extreme ends. The number of persons sit between C and G is same as the number of persons sit between A and C. A is in the left of G who is an immediate neighbour of D.

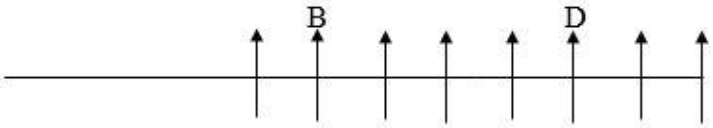
Solution:-

Three persons sit between B and D who is third from one of the extreme ends.

Case - I



Case – II

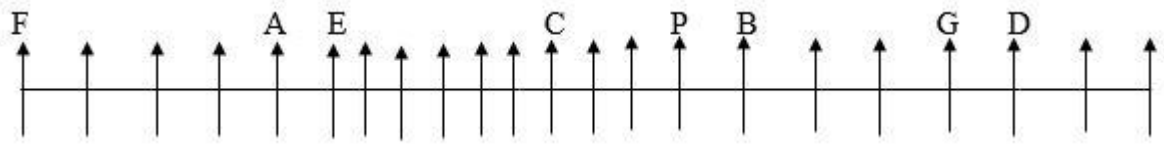


A is in the left of G who is an immediate neighbour of D. A sits fifth from left end of the row. So, Case- I gets cancelled.

Only six persons sit between A and C. The number of persons sit between C and G is same as the number of persons sit between A and C.

E is an immediate neighbour of A and sits fifth to the right of F.

Case – II



Question No. 1

How many people sit in the row?

Options :

1) 18
2) 22
3) 26
4) 17
5) Can't be determined

Answer : 22

Question No. 2

Who sits at the immediate left end of the row?

Options :

1) A
2) E
3) C
4) F
5) Can't be determined

Answer : F

Question No. 3

How many persons sit between P and E?

Options :

1) 4
2) 8
3) 9
4) 11
5) Can't be determined

Answer : 8

Question No. 4

What is the position of G with respect to B?

Options :

1) Third to the right
2) Third to the left
3) Immediate right
4) Fourth to the right
5) Second to the right

Answer : Third to the right

Question No. 5

Which of the following options denote the immediate neighbours?

Options :

1) PC
2) AC
3) AG
4) GP
5) AE

Answer : AE

Direction:- Read the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Question No. 6

Statements:

All Keys are Bike.

Some Bikes are Cars.

No Car is Ford.

Conclusion:

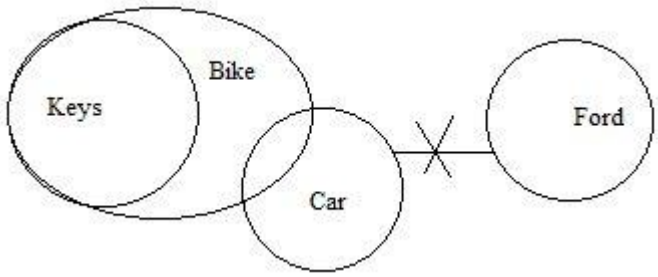
I. Some Bikes are not Ford.

II. No Bike is Ford.

Options :

1) If only conclusion I follows
2) If only conclusion II follows
3) If both conclusion I and II follows
4) If either conclusion I or II follows
5) If neither conclusion I nor II follows

Answer : If only conclusion I follows



I. Yes, Some Bike which are car are not ford.

II. No, as no relation is given between Bike and Ford.

Question No. 7

Statements:

Only a few hands are body.

Some fit are body.

Conclusions:

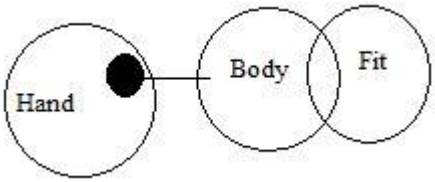
I. Some hands are fit.

II. All body can be hands.

Options :

1) If only conclusion I follows
2) If only conclusion II follows
3) If both conclusion I and II follows
4) If either conclusion I or II follows
5) If neither conclusion I nor II follows

Answer : If only conclusion II follows



I. No, as no relation is given between Hand and Fit.

II. Yes all Body can be hands

Question No. 8

Statements:

All bat are over.

All ball are over.

Conclusions:

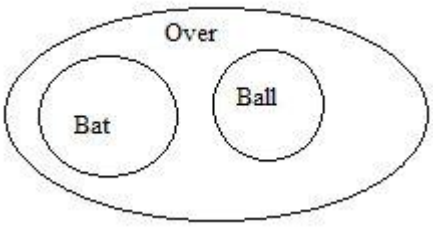
I. No ball is bat.

II. Some bat is ball.

Options :

1) If only conclusion I follows
2) If only conclusion II follows
3) If both conclusion I and II follows
4) If either conclusion I or II follows
5) If neither conclusion I nor II follows

Answer : If either conclusion I or II follows



I. No, no relation is given between Bat and Ball.

II. No, no relation is given between Bat and Ball.

III. But both together make 'Either-Or' Case.

Question No. 9

Statements:

No mouse is rat.

All rat is mice.

Conclusions:

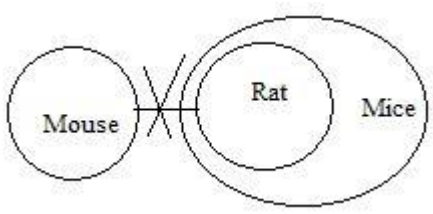
I. Some mice are not mouse.

II. All mouse can be mice.

Options :

1) If only conclusion I follows
2) If only conclusion II follows
3) If both conclusion I and II follows
4) If either conclusion I or II follows
5) If neither conclusion I nor II follows

Answer : If both conclusion I and II follows



I. Yes, some part of mice which is Rat is not mouse

II. Yes, as no relation is given between them.

Question No. 10

Statements:

Only a few Sodium is metal.

No Sodium is heavy.

Conclusions:

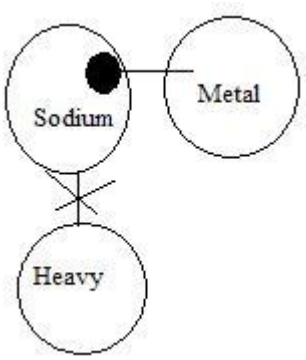
I. All Sodium can be metal.

II. All metal can be heavy.

Options :

1) If only conclusion I follows
2) If only conclusion II follows
3) If both conclusion I and II follows
4) If either conclusion I or II follows
5) If neither conclusion I nor II follows

Answer : If neither conclusion I nor II follows



I. No, As only a few is given

II. No, Some part of Sodium which is metal cannot be Heavy.

Direction:- Seven boxes P, Q, R, S, T, U and V are placed one above the other in the stack but not necessarily in the same order. T is placed immediate above V and U is placed immediately below V. The number of boxes placed above and below V are the same. Two boxes are placed between V and S. P is not placed adjacent to box T and U. R is placed below V but not placed adjacent to box S.

Solution:-

The number of boxes placed above and below V are the same (V is placed at 4th position). T is placed immediate above V and U is placed immediately below V.

Two boxes are placed between V and S. R is placed below V but not placed adjacent to box S (It means S cannot be placed below V).

P is not placed adjacent to box T and U, So it should be placed at the bottom.

R is placed below V. Only box left is Q which should be placed at 6th postion.

7	S
6	Q
5	T
4	V
3	U
2	R
1	P

Question No. 11

Which box is placed at the bottom?

Options :

1) U
2) R
3) P
4) T
5) Can't be determined

Answer : P

Question No. 12

How many boxes are placed between T and R?

Options :

1) 1
2) 2
3) 3
4) None
5) Can't be determined

Answer : 2

Question No. 13

Which box is placed immediately above R?

Options :

1) U
2) P
3) V
4) T
5) Can't be determined

Answer : U

Question No. 14

Four of the options are alike in way, choose the one which is different.

Options :

1) P
2) U
3) Q
4) T
5) S

Answer : Q

Question No. 15

How many boxes are placed below S?

Options :

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

Answer : 6

Direction:- In this question, relationship between different elements is shown in the statements. The statements are followed by conclusions. Study the conclusion based on the given statement and select the appropriate answer.

Question No. 16

7 > 8 ≥ Q > H = 1 < D

Conclusions

I. 8 > H

II. H < D

Options :

1) If only conclusion I follows
2) If only conclusion II follows
3) If both conclusion I and II follows
4) If either conclusion I or II follows
5) If neither conclusion I nor II follows

Answer : If both conclusion I and II follows

I. Yes, 8 ≥ Q > H

II. Yes, H = 1 < D

Question No. 17

Statements W < Z < O ≤ P > B > M

Conclusions

I. P ≥ Z II. B > O

Options :

1) If only conclusion I follows
2) If only conclusion II follows
3) If both conclusion I and II follows
4) If either conclusion I or II follows
5) If neither conclusion I nor II follows

Answer : If neither conclusion I nor II follows

I. No, Z < O ≤ P

II. No, O ≤ P > B

Question No. 18

Statement:

P < Q > A ≤ L < F= K

Conclusion:

I. P > K II. K ≥ P

Options :

1) If only conclusion I follows
2) If only conclusion II follows
3) If both conclusion I and II follows
4) If either conclusion I or II follows
5) If neither conclusion I nor II follows

Answer : If either conclusion I or II follows

I. No, P < Q > A ≤ L < F= K

II. No, P < Q > A ≤ L < F= K

But together they make "Either-Or" case

Question No. 19

Statements

Q > R > Y = J ≥ D < B

Conclusions

I. Y >B

II. B > J

Options :

1) If only conclusion I follows
2) If only conclusion II follows
3) If both conclusion I and II follows
4) If either conclusion I or II follows
5) If neither conclusion I nor II follows

Answer : If neither conclusion I nor II follows

I. No, Y = J ≥ D < B

II. No, J ≥ D < B

Question No. 20

Statements: P > Q < K ≥ L > W ≥ D = N ≤ X

Conclusion

I: X > D

II: K ≥ D

Options :

1) If only conclusion I follows
2) If only conclusion II follows
3) If both conclusion I and II follows
4) If either conclusion I or II follows
5) If neither conclusion I nor II follows

Answer : If neither conclusion I nor II follows

I. No, D=N≤X

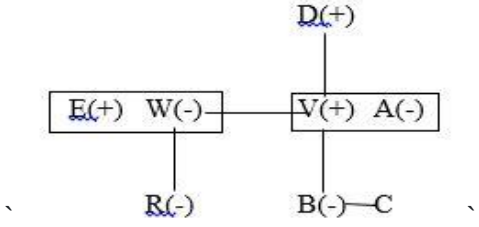
II. No, K ≥ L>W ≥ D

Direction:- Read the instruction carefully and answer the questions:

Eight persons of a family living in a house. There are two married couples and three generations in this family.

V is the father of C. A is the parent of B, who is the only sister of C. D is the father-in-law of A. W is the only daughter of D. R is the daughter of E who is the son-in-law of D.

Solution:-



Question No. 21

How is R related to V?

Options :

1) Son
2) Daughter
3) Niece
4) Nephew
5) Can't be determined

Answer : Niece

Question No. 22

Who is C related to B?

Options :

1) Nephew
2) Niece
3) Daughter
4) Son
5) Can't be determined

Answer : Can't be determined

Question No. 23

If C is the grandson of D. How many male members are there?

Options :

1) 2
2) 4
3) 3
4) 5
5) Can't be determined

Answer : 4

Question No. 24

How many pairs of digits are there in the number '**7362188**', each of which have as many digits between them (both forward and backward direction) in the number as they have between them according to the number series?

Options :

1) 1
2) 2
3) 3
4) 4
5) None

Answer : 2

1-2

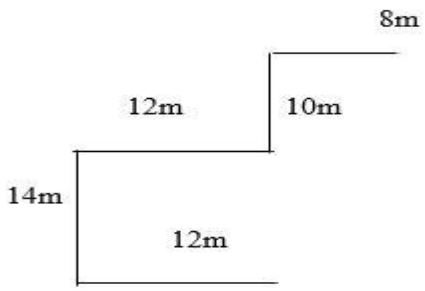
3-8

2 such pairs

Direction:- Read the instructions carefully before answering the questions:

A person starts walking in the north direction and walks 12m, then takes two consecutive right turns and walks 14m and 12m respectively. From there he takes a left turn and walks 10m, then finally takes a right turn and walks 8m to reach his destination.

Solution



Question No. 25

Which direction is he facing now?

Options :

1) East
2) West
3) North
4) South
5) Can't be determined

Answer : South

Question No. 26

In which direction is he now with respect to his initial position?

Options :

1) South
2) North-West
3) South West
4) North East
5) South East

Answer : South East

Question No. 27

If he turn right and walks 24m then how far is he from his initial position?

Options :

1) 8m
2) 14m
3) 226m
4) 16m
5) Can't be determined

Answer : 8m

Direction:- Study the following information carefully and answer the questions given below.

Seven persons live in a seven-storey building. The ground floor is numbered as 1 and the topmost floor is numbered as 7.

Four persons live between A and B, who lives below Arsquo;s floor. Two persons live between C and B. G lives immediately above Drsquo;s floor. More than three persons live between E and F. E lives below Drsquo;s floor.

Solution:-

7	A
6	F
5	C
4	G
3	D
2	B
1	E

Question No. 28

Who live at the bottom?

Options :

1) E
2) A
3) B
4) C
5) Can't be determined

Answer : E

Question No. 29

How many persons live between A and F?

Options :

1) 1
2) 2
3) 3
4) None
5) Can't be determined

Answer : None

Question No. 30

Who lives at 5th floor?

Options :

1) E
2) A
3) B
4) C
5) Can't be determined

Answer : C

Question No. 31

G lives on which floor?

Options :

1) 3rd
2) 4th
3) 7th
4) 5th
5) Can't be determined

Answer : 4^{th}

Question No. 32

Four of the given options are alike in a way. Choose the odd one.

Options :

1) E
2) D
3) F
4) C
5) A

Answer : F

Direction:- Use the given arrangement to answer the given questions:-

A & B 6 C 7 © 1 M 8 % Z 2 3 $ C I 9 # F ϕ N R @ 5 4 U * D

Question No. 33

Which is the following element is 7th to the right of 9th from the left end?

Options :

1) $
2) C
3) I
4) 9
5) F

Answer : C

Question No. 34

How many digits are there in the above arrangement which are immediately followed by a symbol and preceded by a consonant?

Options :

1) 1
2) 2
3) 3
4) 4
5) None

Answer : 2

C 7 ©

M 8 %

Question No. 35

How many elements are there between 6th element from left end and 11th elements from right end?

Options :

1) 10
2) 13
3) 11
4) 12
5) 9

Answer : 12

Question No. 36

How many such symbols are there which are preceded by a number and followed by a letter?

Options :

1) 1
2) 3
3) 2
4) 4
5) None

Answer : 3

8 % Z

9 # F

3 $ C

Question No. 37

How many total elements are there?

Options :

1) 26
2) 28
3) 29
4) 31
5) 30

Answer : 29

Question No. 38

If in a certain language OPEL is written as &*%$ and PASS is written as *@##. Then how would APPLE be coded in the same language?

Options :

1) @$*$%
2) @*$%%
3) @**$%
4) **#$%
5) Can't be determined

Answer : @**$%

O & P * E % L $ A @ S #

So, APPLE = @**$%

Direction:- Read the instruction carefully and answer the questions:

A group of 5 persons is comparing their heights. All members are of different heights. A is taller than only one person. B is taller than D but shorter than F. D is not shorter than A. C is also a member.

Question No. 39

How many persons are shorter than B?

Options :

1) 2
2) 4
3) 3
4) No one
5) Can't be determined

Answer : 3- F >B>D>A>C

Question No. 40

If the weight of A is 28kg, what can be the weight of C?

Options :

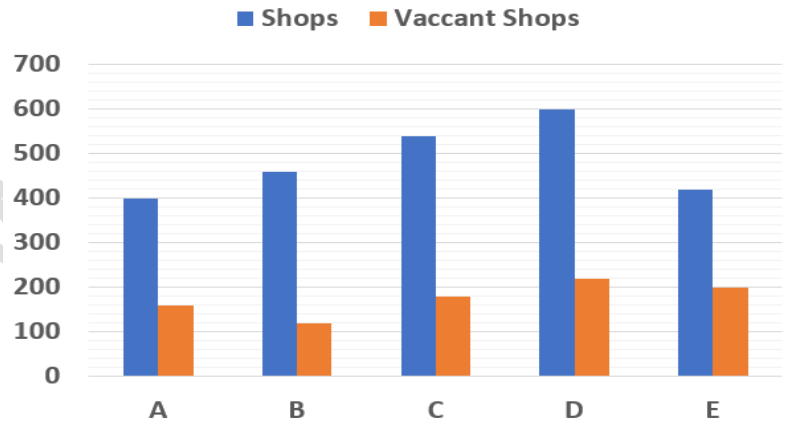
1) 27
2) 29
3) 30
4) 40
5) 28

Answer : 27

F>B>D>A>C

Direction:- Read the data given below and answer the following questions.

The bar graph given below shows the total no. of shops and no. of vacant shops in five Multiplex buildings.



Note – Total Shops = Vacant Shops + Occupied Shops

Solution:-

Multiplex buildings	Total Shops	Vacant Shops	Occupied Shops
A	400	160	240
B	460	120	340
C	540	180	360
D	600	220	380
E	420	200	220

Question No. 41

No. of vacant shops in building C and D together are approximate what percentage of no. of occupied shops in building D and E together.

Options :

1) 57%
2) 67%
3) 66%
4) 65%
5) 69%

Answer : 67%-Required percentage = (180 + 220)/(380+220) × 100 = 66(2)/(3) = 67%

Question No. 42

What is the respective ratio of occupied shops in building A and E together to vacant shops in C and D together?

Options :

1) 20:23
2) 25:23
3) 23:20
4) 21:23
5) 23:21

Answer : 23:20- Required Ratio = (240+220)/(180+220) = 460/400 = 23:20

Question No. 43

Average no. of vacant shops in building A and E is what percentage of occupied shops in building C.

Options :

1) 50%
2) 100%
3) 105%
4) 60%
5) 57%

Answer : 50%

Average vacant shops in A and E = (160+200)/2 = 180

Required percentage = 180/360 × 100 = 50%

Question No. 44

Total shops in building B and D together are how much more or less than that in building A and C together.

Options :

1) 102
2) 120
3) 130
4) 105
5) 100

Answer : 120

Required Difference = (460 + 600) − (400 + 540) = 1060 − 940 = 120

Question No. 45

If 3 people visit in each occupied shop of building A in a day and 2 people visit in each occupied shop of building B in a day, then find total no. of people visiting in multiplex building A and B in a day.

Options :

1) 1300
2) 1450
3) 1400
4) 1500
5) 1550

Answer : 1400

Required no. = 3 × 240 + 2 × 340 = 720 + 680 = 1400

Direction:- What should come in place of the question mark (?) in the following question?

Question No. 46

√1296 ÷ 4 x 24 =?

Options :

1) 156
2) 216
3) 98
4) 112

Answer : 216

36 ÷ 4 x 24 =?

9 x 24 = ?

216 = ?

Question No. 47

704 ÷ 32 x 13 + 175 – 315 =?

Options :

1) 283
2) 234
3) 146
4) 753
5) None of these

Answer : 146

22 x 13 + 175 – 315 = ?

286 + 175 - 315 = ?

146 = ?

Question No. 48

4/5 of 24% of 750 = ?

Options :

1) 144
2) 65
3) 99
4) 105

Answer : 144

4/5 of 180 = ?

720/5 = ?

144 =?

Question No. 49

512 ÷ 8 ÷ ? =16

Options :

1) 4
2) 9
3) 16
4) 8

Answer : 4

512 x 1/8 x 1/? = 16

1/? = (16 x 8)/512

1/? = 128/512 = 1/4

? = 4

Question No. 50

?% of 450 – 18 = 180

Options :

1) 44
2) 55
3) 35
4) 40
5) None of these

Answer : 44

?/100 x 450 = 180 + 18

? x 4.5 = 198

? = 198/4.5

? = 44

Question No. 51

$(4)^2$ % of ? = 300 + 20

Options :

1) 2000
2) 2200
3) 600
4) 900

Answer : 2000

16/100 x ? = 320

? = (320 x 100)/16

? = 2000

Question No. 52

$(750 \div 50)^2 - (12)^2 = (?)^2$

Options :

1) 9
2) 24
3) 18
4) 20
5) None of these

Answer : 9

$(15)^2 - (12)^2 = (?)^2$

$225 - 144 = (?)^2$

$(?)^2 = 81 = 9^2$

? = 9

Question No. 53

$4^2 \times 100 \div 4 - 230 = ?$

Options :

1) 170
2) 245
3) 315
4) 480

Answer : 170

$4^2 \times 100 \div 4 - 230 = ?$

$16 \times 25 - 230 = ?$

$400 - 230 = ?$

$? = 170$

Question No. 54

(5/6) of 55% of ? = 1416.25

Options :

1) 2525
2) 3090
3) 2432
4) 8060
5) None of these

Answer : 3090

(5/6) x 55/100 x ? = 1416.25

? = (1416.25 x 100 x 6)/(5 x 55)

? = 3090

Question No. 55

√2809 + √? = √21025

Options :

1) 3721
2) 841
3) 6241
4) 8464
5) None of these

Answer : 8464

5^3 + √? = 145

√? = 145 – 53

? = 92 x 92 = 8464

Question No. 56

54% of 550 + 38% of ? = 449

Options :

1) 200
2) 300
3) 400
4) 250
5) None of these

Answer : 400

297 + 38/100 x ? = 449

38/100 x ? = 449 – 297

38/100 x ? = 152

? = 400

Direction:- In the following questions two equations numbered I and II are given. You have to solve both the equations. Give answer if;

(1) p = q or relationship cannot be established between p and q

(2) p > q

(3) p < q

(4) p ≤ q

(5) p ≥ q

Question No. 57

I. $2p^2 – 13p +21 = 0$

II. $3q^2 -7q + 2 =0$

Options :

1) 1
2) 2
3) 3
4) 4
5) 5

Answer : 2

I. $2p^2 – 13p +21 = 0$
If sign of quadratic equations is -ve and +ve respectively then both the roots will be +ve and +ve
so,
Roots of equation I will be 42 (2 × 21) = 7/2 and 6/2 or 7/2 and 3
II. $3q^2 -7q + 2 =0$
If sign of quadratic equations is -ve and +ve respectively then both the roots will be +ve and +ve
so,
Roots of equation II will be 6 (3 × 2) = 6/3 and 1/3 or 2 and 1/3
Therefore, p > q.

Direction:- In each of these questions two equations numbered (i) and (ii) are given. You have to solve both the equations and give answer, if –

Question No. 58

(i) $p^2 - 24p + 144 = 0$

(ii) $q^2 - 26q + 169 = 0$

Options :

1) p > q
2) p < q
3) p = q or p & q relationship cannot be established
4) p ≥ q
5) p ≤ q

Answer : p < q

(i) $p^2 - 24p + 144 = 0$

⇒ $(p - 12)^2 = 0$

⇒ $p - 12 = 0$

⇒ $p = 12$

(ii) $q^2 - 26q + 169 = 0$

⇒ $(q - 13)^2 = 0$

⇒ $q - 13 = 0$

⇒ $q = 13$

Hence, p < q

Direction:- In each question two equations are provided. On the basis of these you have to find out the relation between p and q. Give answer.

Question No. 59

I. $p^2 - 19p + 88 = 0$

II. $q^2 - 48q + 576 = 0$

Options :

1) if p = q
2) if p > q
3) if q > p
4) if p ≥ q
5) if q ≥ p

Answer : if q > p

I. $p^2 - 19p + 88 = 0$

$(p - 11)(p - 8) = 0$

$p = 11$ or 8

II. $q^2 - 48q + 576 = 0$

$(q - 24)(q - 24) = 0$

$q = 24$ or 24

Hence, q > p
Alternate Method:

if signs of quadratic equation is -ve and +ve respectively then the roots of equation will be +ve and +ve.
So, roots of first equation = p = 11, 8
So, roots of second equation = q = 24
After comparing roots of quadratic eqution we can conclude that p < q.

Direction:- In the following questions two equations numbered I and II are given. You have to solve both the equations. Give answer if;

Question No. 60

I. x2 - 6x = 7

II. 2y2 + 13y + 15 = 0

Options :

1) x < y
2) x > y
3) x = y
4) x ≥ y
5) x ≤ y

Answer : x > y

I. x^2 - 6x = 7
x^2 - 6x -7 = 0
(x – 7) (x +1) = 0,
x = 7, - 1
II. $2y^2$ + 13y + 15 = 0
$2y^2$ + 3y +10y +15 = 0
y(2y + 3) +5 (2y + 3) = 0,
(2y+ 3) (y + 5) = 0
y = - `(3)/(2)` , -5

Hence, x > y

Direction:- In the following questions two equations numbered I and II are given. You have to solve both the equations. Give answer if;

(1) p > q, (2) p < q , (3) p = q , (4) `p>=q` , (5) p`

Question No. 61

I. $p^2+p = 56$`

II. $q^2-17q+72 = 0$`

Options :

1) 1
2) 2
3) 3
4) 4
5) 5

Answer : 2

I.p^2 +p=56 or p^2+p-56=0

p^2+8p-7p-56=0 or, (p – 7)(p + 8) = 0

Or p = - 8 or 7 ,

II. q^2-17q+72 , or (q – 8)(q – 9) = 0, Or q = 8 or 9,

Hence, q > p

Question No. 62

The profit percentage of X and Y is same on selling the articles at Rs. 1800 each but X calculates his profit on the selling price while Y calculates it correctly on the cost price which is equal to 20%. What is the difference in their profits?

Options :

1) Rs. 60
2) Rs. 68
3) Rs. 56
4) Rs. 58
5) None of these

Answer : Rs. 60

Profit(Calculated on SP) = 20% of 1800 = 360

Profit(calculated on CP)

x + x/5 = 1800

6x/5 = 1800

x = 1500

Profit = 1500/5 = Rs. 300

Difference = 360 – 300 = Rs. 60

Question No. 63

Rahul travelled from point A to B. Rahul went by bike at the speed of 20 km/h and came back at the speed of 5 km/h. If Rahul took 6 hours and 45 min to complete his journey, then what is the distance between A and B?

Options :

1) 29 km
2) 30 km
3) 27 km
4) 19 km
5) 36 km

Answer : 27 km

Average speed of Rahul = 2xy/(x+y) = (2 × 20 × 5)/(20 + 5) = 200/25 = 8 km/h

Distance travelled = Speed × Time = 8 × 27/4 = 54 Km

Distance between A and B = 54/2 = 27 km

Question No. 64

Two trains A and B running at the speed of 180 km/hr and 288 km/hr respectively crossed another train 'M', which is standing stationary of length 380 meters in 21 sec and 24 sec respectively. How much time both train A and B will take to cross each other, if both of them are running in opposite direction?

Options :

1) 22
2) 17
3) 57
4) 62
5) 31

Answer : 17

Let distance of train A and B be 'x' meters and 'y' meters respectively.

ATQ,

180 × 5/18 = (x + 380)/ 21

1050 = x + 380

x = 670 meters

And,

288 × 5/18 = (y + 380)/24

1920 = y + 380

y = 1540 meters

Let required time be T sec,

(180 + 288) × 5/18 = (670+1540)/T

130T = 2210

T = 17 sec

Question No. 65

A started a business with an investment of Rs 16,000. After 2 months B joins in with 5/8 of the amount that A invested and A withdraws Rs 4,000. After 2 more months, C joins with Rs 12,000 and A again withdraws Rs 2,000. After an year, If C received Rs 3,120 as his share then what was the total profit?

Options :

1) Rs. 16,954
2) Rs. 11,668
3) Rs. 10,790
4) Rs. 14,326
5) None of these

Answer : Rs. 10,790

Ratio equivalent capitals of A, B and C for 1 year = (16,000×2+ 12,000×2+10,000×8) : (5/8× 16,000 ×10):(12,000×8)

= (32,000+24,000+80,000) :1,00,000:96,000

= 1, 36, 000 : 1,00,000 : 96,000

= 136 : 100 : 96

= 34:25:24

If the total profit at the end of the year be Rs x, then

24x/((34+25+24)) = 3,120

⇒ 24x = 3,120 × 83

⇒ x = (3,120 ×83)/24 = Rs 10,790

Question No. 66

A certain sum is invested for 2 years in scheme A at 25% p.a. compound interest compounded annually. Same sum is also invested for n period in scheme B at 15% p.a. at a simple interest. The interest earned from scheme A is 150% of that earned from scheme B. What is the value of n?

Options :

1) 3.6
2) 5
3) 2.5
4) 4
5) None of these

Answer : 2.5

CI rate for 2 years at 25% pa = 25 + 25 + (25 × 25)/100 = 56.25%

Let the sum is = P

So CI = P × 56.25%

SI for n period at 15% pa = P × n × 15%

According to question,

P × 56.25% = 3/2 (P × n × 15%)

n = 2.5 yrs.

Question No. 67

105 301 157 257 193 ?

Options :

1) 229
2) 298
3) 399
4) 352
5) None of these

Answer : 229

+ 14^2, - 12^2, + 10^2, - 8^2, + 6^2

Direction:- Find the missing number in the following number series.

Question No. 68

25, 13, 14, 22.5, ?

Options :

1) 15
2) 12
3) 16
4) 47
5) 25

Answer : 47

25 ×.5 +.5 = 13

13 × 1+ 1 = 14

14 ×1.5 + 1.5 = 22.5

22.5 × 2 + 2 = 47

Question No. 69

41 64 85 ? 121 136

Options :

1) 108
2) 106
3) 102
4) 104
5) 100

Answer : 104

41 + 23 = 64

64 + 21 = 85

85 + 19 = *104*

104 + 17 = 121

121 + 15 = 136

Question No. 70

73 76 74 77 75 ?

Options :

1) 79
2) 78
3) 77
4) 76
5) 75

Answer : 78

73 + 3 = 76

76 - 2 = 74

74 + 3 = 77

77 - 2 = 75

75 + 3 = *78*

Question No. 71

11 17 29 53 101 ?

Options :

1) 201
2) 183
3) 197
4) 213
5) 202

Answer : 197

11 + 6 = 17

17 + 12 = 29

29 + 24 = 53

53 + 48 = 101

101 + 96 = *197*

Direction:- Study the table carefully to answer the questions that follow:

Sales (in lakh) of the food items of six different Restaurants over the given months.

Restaurant	Month				
	January	February	March	April	May
A	110	90	140	210	175
B	120	80	130	195	160
C	180	70	129	185	195
D	190	65	118	165	185
E	450	67	142	175	123
F	420	76	193	180	112

Question No. 72

The number of food items sold by D in all the given months is what per cent of the number of food items sold by C from February to May? (approx)

Options :

1) 125%
2) 127%
3) 129%
4) 123%
5) 55%

Answer : 125%

Sales in Restaurant D

= 190+65+118+165+185

= 723

Sales in Restaurant C

= 70 + 129 + 185 + 195

= 579

Required % = 723/579 × 100 = 125%

Question No. 73

The food sold by A in May is what per cent less of the total number of foods sold by all the restaurants together in that month? (Find in approximation)

Options :

1) 89%
2) 82%
3) 85%
4) 83%
5) 88%

Answer : 82%

Number of foods sold by A in May = 175

Total number of foods sold in May by all the Restaurants

=175 + 160 + 195 + 185 + 123 + 112

=950

Therefore, required difference

= 950 - 175

= 775

Reqd. % = 775/950 × 100 = 81.57 ≈ 82%

Question No. 74

What is the approximate average number of foods sold (in lakh) in the month February?

Options :

1) 76
2) 47
3) 75
4) 74
5) 77

Answer : 75

Reqd. avg

= (90 + 80 + 70 + 65 +67 +76)/6 = 448/6 = 74.66 ≈ 75

Question No. 75

The ratio of foods sold by C In all the given months to the foods sold by F in all the given months is?

Options :

1) 327:253
2) 203: 327
3) 253: 327
4) 327:203
5) None of these

Answer : 253: 327

Reqd ratio

= (180 + 70 + 129 + 185 + 195) / (420 + 76 + 193 + 180 + 112)

= 759/981

= 253/327

= 253: 327

Question No. 76

Find the difference between the average sales in March and that of May for all the restaurants taken together?

Options :

1) 16.66
2) 16.33
3) 16.55
4) 16.22
5) 16.11

Answer : 16.33

Total sales in March:

= 140 + 130 + 129 + 118 + 142 + 193

= 852

Total sales in May:

= 175 + 160 + 195 + 185 + 123 + 112

= 950

Difference in total sales

= 950 - 852

= 98

Reqd. average difference = 98/6 = 16.33.

Question No. 77

The area of a square is 2116 square metres. The breadth of a rectangle is half of the side of the square and the length of the rectangle is thrice its breadth. What is the difference between the area of the square and the area of the rectangle?

Options :

1) 182 square metre
2) 150 square metre
3) 520 square metre
4) 529 square metre
5) None of these

Answer : 529 square metre

Area of the square = 2116 square metres

So, side = $\sqrt{2116}$ = 46m

∴ Breadth of the rectangle = $\frac{1}{2} \times 46 = 23$m

And length of the rectangle = 23 × 3 = 69m

Area of the rectangle = 69 × 23 = 1587 square metre

∴ Reqd difference = 2116 – 1587 = 529 square metre

Question No. 78

My grandmother was 9 times older to me 18 years ago. She would be 3 times of my age 9 years from now. 9 years ago, what was the ratio of my age to that of my grandmother?

Options :

1) 3:1
2) 1:5
3) 1:4
4) 2:5
5) 3:4

Answer : 1:5

Let my age 18 years ago be x years

My grandmother's age at that time = 9 x years

My present age = (x + 18) years

My grandmother's present age = (9 x + 18) years

According to question

3(x + 18 + 9) = (9 x + 18 + 9)

3 x + 81 = 9 x + 27

9 x - 3 x = 81 – 27

6 x = 54

x = 9

Now, ratio of ages 9 years ago = (x + 18 -9)/(9x +18 - 9) = (9 + 18 - 9)/(9 × 9 + 18-9)=18/90 = 1:5

Question No. 79

If Rs. 12000 is invested at a simple interest at the rate of 5% p.a., Rs. 4800 is obtained as interest in certain years. In order to earn Rs. 6400 as interest on Rs. 20,000 in the same number of years, what should be the rate of simple interest?

Options :

1) 6%
2) 8%
3) 4%
4) 5%
5) None of these

Answer : 4%

S.I = (P ×R ×T)/100

4800 = (12000 × 5 × T)/100

T =4800/600

T = 8 years

Similarly,

6400 = (20000 × 8 × R)/100

R = 6400/1600

R = 4% per annum

Question No. 80

A tank is filled by 3 pipes, second pipe take 10 hours more than first pipe and 10 hours less than third pipe to fill the tank alone. If second and third pipe together take 2 hour more than first pipe to fill the tank then find out how much time second pipe will take to fill the tank alone?

Options :

1) 20 hours
2) 10 hours
3) 5 hours
4) 6 hours
5) None of these

Answer : 20 hours

Let the second pipe can fill tank in x hours

So, first pipe fill tank in (x-10) hours and

Third pipe fill tank in (x + 10) hours

According to the question,

Second pipe and third pipe together take 2 hour more time to fill the tank from first pipe.

So time taken by second pipe third pipe together = (x – 10 + 2) hours = (x – 8) hours

1/x + 1/(x +10) = 1/(x -8)

(x +10 + x)/(x^2+ 10 x) = 1/(x - 8)

(x – 8) (2x + 10) = x^2+ 10x

2x^2+ 10x - 16x – 80 = x^2+ 10x

x^2- 16x – 80 = 0

x^2- 20x + 4x – 80 = 0

x (x – 20) + 4(x – 20) = 0

(x – 20) (x + 4) = 0

x = - 4, 20

So second pipe can fill the tank in 20 hours alone.