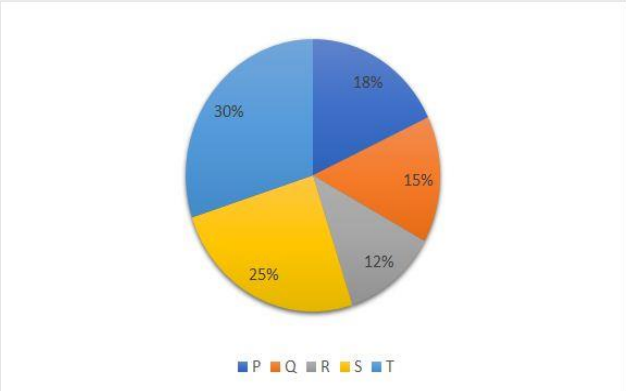
Best of Bundle PDF Course 2022 – Quantitative Aptitude Questions for Mains Exams

Best of Bundle PDF Course Quantitative Aptitude Mains table of contents

Pie chart

Directions (1 – 5): Read the following information carefully and answer the questions based on it

The pie chart given below shows the % distribution of the number of tickets booked on five different web sites – P, Q, R, S, and T for two places in Delhi – Model town (MT) and Pulbangash (PB). Price per ticket for MT is Rs. 40 on each website



The table given below shows the % by which revenue generated by a particular website from ticket booking to PB is more than that of MT.

Name of website	% By which revenue generated from PB is more than that of MT
P	60%
Q	100%
R	20%
S	12.5%
T	0%

Note: Total revenue generated by all websites together is Rs. 22240 and price per ticket to PB is twice as that of MT.

1) For P, if ticket cancellation charges for MT and PB is Rs. 5 and Rs. 10 respectively, and net revenue generated from tickets for MT is Rs. 1180, then find the net revenue generated from tickets to PB, if respective ratio of number of tickets cancelled to MT and PB is 6:5 respectively.

a) Rs. 2400

b) Rs. 1860

c) Rs. 3100

d) Rs. 2600

e) None of these

2) Number of tickets booked on website S and website T respectively are (3P + 5Q + 10) and (4P + 10Q – 24) then find Q is how much % less than that of P?

a) 40% Less

b) 75% More

c) 50% More

d) 60% Less

e) None of these

3) For website U, price per ticket of MT and PB is Rs. 120 and Rs. 60 respectively and revenue generated from tickets booked to MT and PB is same as that of web site R. Number of tickets cancelled to MT is 3 and there is no tickets cancelled to PB. Find total number of persons travelled.

a) 33

b) 29

c) 31

d) 35

e) None of these

4) M = difference between number of tickets booked on P and R

N = Difference between number of tickets booked on S and T

Find correct relation between M and N

a) M > N

b) M < N

c) M + N = perfect square

d) M – N = perfect cube

e) None of these

5) Find total revenue generated by website Q.

a) Rs. 4400

b) Rs. 4800

c) Rs. 3800

d) Rs. 4000

e) None of these

Caselet

Directions (6 - 10): Study the following information carefully and answer the questions given below.

There are five Organizations. [A, B, C, D, &E]. Each one has two departments: Account and IT. Ratio of the number of employees in Accounts and IT department of A is 4:5. Ratio of the number of employees in the Account of organization A and B is 4:7. Number of employees in the IT department of B is 100 less than the number of employees in Accounts of the same organizations. Ratio of the number of employees in the IT department of organization C and D is 4:3. Number of employees in the accounts department of C is 50 more than the number of employees in the IT department of D. Total number of employees in A is 360 and the Total number of employees in the IT department of B and C together is 300.Number of employees in the Account department of E is 80% of the number of employees in Account department of D. Number of employees in the IT department of E is 125 more than the number of employees in the Accounts department of D. Total number of employees in D is 215.

6) In organization A, 40% of employees in the accounts department are postgraduates and the rest are only graduates. In the IT department, 60% of employees are only graduates. Find the ratio between the total number of Postgraduate employees in organizations A to the total number of only graduate employees in A.

a) 2:7

b) 3:2

c) 2:3

d) 2:5

e) 6:7

7) Salary of each employee of Account department B is x and the salary of each employee of the IT department is x-2000. If the difference of total salary of all employees of these two departments is 2760000 then find the total salary of all employees of IT department of

D where each employee's salary in IT department of D is x+2000.

a) 2230000

b) 2360000

c) 2540000

d) 2340000

e) 2250000

8) Organization C wants to open a new department i.e., Marketing. Number of males in the marketing department of C is 10% more than the employee of the Accounts department of C. Number of females in the Marketing department is 10% less than the total number of employees in Account department of B. Find the total number of employees in the Marketing department.

a) 420

b) 406

c) 252

d) 258

e) None of these

9) __% employee of ___ department of organization___ is 44.44% of the employee of IT department of Organization B.

Find which combination of values satisfies the blank in the same sequence.

a) 50, Accounts, A

b) 50, IT, A

c) 30, Accounts, C

d) 40, Accounts, D

e) None of these

10) Another organization F, employees in the Accounts department are the average number of employees in the accounting department of A and C together and employee in the IT department is the average number of employees in the IT department in C and D together. Find the difference between employees in Accounts and the IT department of F.

a) 45

b) 40

c) 30

d) 35

e) None of these

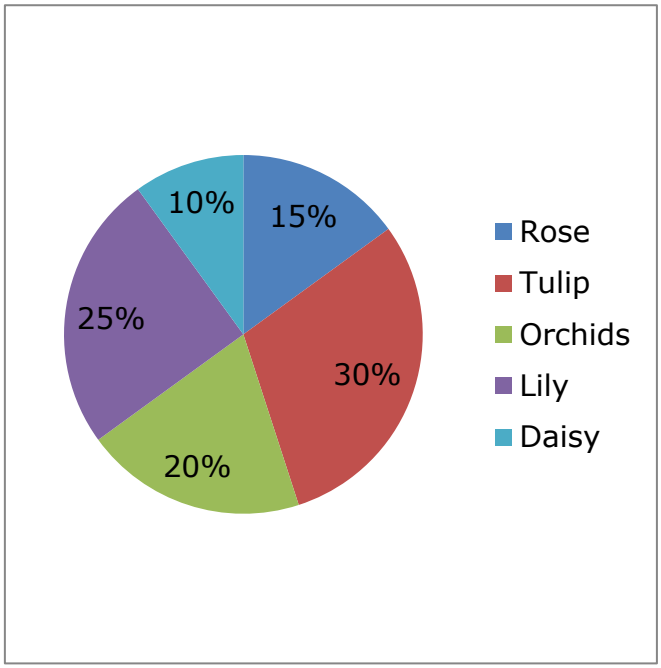
Pie chart – Bar graph

Direction (11-15): Study the following data carefully and answer the questions:

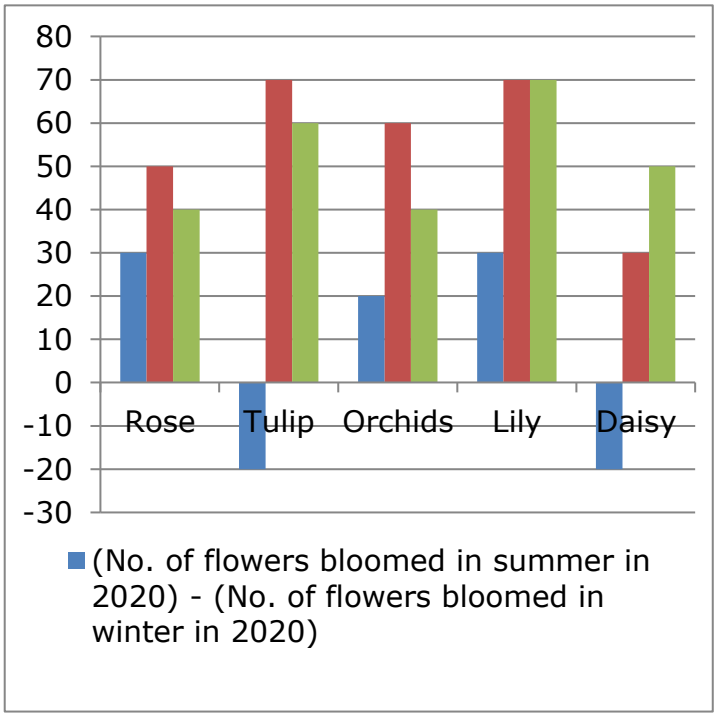
Five different types of flowers Rose, Tulip, Orchids, Lily, and Daisy are bloomed in a gardener's garden. Data given below gives the information about the number of each type of flower bloomed in the gardener's garden in the summer season and winter season of two different years 2020 and 2021.

Total number of flowers bloomed in a year = Number of flowers bloomed in summer of that year + Number of flowers bloomed in winter of that year

Pie chart given below shows the percent distribution of each type of flower that bloomed in 2020.



Bar graph given below shows the difference between the number of flowers that bloomed in summer in 2020 and that bloomed in winter in 2020, average number of flowers bloomed in summer in 2020 and 2021, and the average number of flowers bloomed in winter in 2020 and 2021.



Note: Ratio of the number of Orchids to that of Lilies bloomed in summer in 2020 is 7: 9.

11) Find the ratio of the total number of Roses bloomed in both the years together to the total number of Daisies bloomed in both the years together.

a) 6: 5

b) 5: 4

c) 10: 9

d) 12: 11

e) 9: 8

12) The gardener sold Orchids in 2020 at Rs.10 per piece and in 2021 at Rs.15 per piece. If he sold all the Orchids bloomed in his garden, then

find the difference between the amount received by him by selling Orchids in 2020 and 2021.

a) Rs.50

b) Rs.20

c) Rs.40

d) Rs.30

e) None of these

13) Total number of flowers bloomed in winter in 2020 is what percent of that bloomed in summer in 2020?

a) 72.5%

b) 87.5%

c) 67.5%

d) 78.5%

e) 92.5%

14) Find the average number of Orchids, Lilies and Daisies together bloomed in summer in 2021 and those bloomed in winter in 2021?

a) 145

b) 160

c) 155

d) 170

e) 150

15) Total number of Tulips that bloomed in both the years together is what percent more or less than the total number of Lilies bloomed in both the years together?

a) 11.11%

b) 16.67%

c) 10%

d) 7.14%

e) 5%

Missing Table

Directions (16 - 20): Study the following information carefully and answer the questions given below.

There are five shops namely A, B, C, D, E. Each shop sells mobiles of three different companies, i.e., Samsung, Nokia, and ONEPLUS. There are two types of mobiles in each shop i.e., Keypad and touch screen. The table given below shows total number of mobiles sold in all shops, Percentage of Samsung mobile sold, the ratio of the number of Nokia and ONEPLUS mobiles sold, Percentage or number of Samsung Keypad mobiles sold out of total Samsung mobiles sold and Number of ONEPLUS touch screen mobiles sold out of total ONEPLUS mobiles sold are given.

Shops	Total number of mobiles sold	Percentage of Samsung mobiles sold	Ratio of the number of Nokia to ONEPLUS mobiles sold	Percentage or number of Samsung Keypad mobiles sold out of total Samsung mobiles sold	Number of ONEPLUS touch screen mobiles sold out of total ONEPLUS mobiles sold
A	2000	_____	5:4	_____	100
B	_____	60%	____	40%	200
C	2400	40%	5:3	_____	_____
D	3000	60%	3:2	800	300
E	_____	50%	____	20%	200

16) 20% of the total mobile sold in shop A is ONEPLUS mobile and the number of touch screen Samsung mobile sold in shop A is six times the number of touch screen ONEPLUS mobile sold in the same shop. If the ratio of keypad and touch screen of Nokia mobile sold in shop A is 3:2. Find the total number of keypads sold in shop A.

a) 1400

b) 1500

c) 1200

d) 1100

e) 1020

17) Total 360 Touch screen Samsung mobiles are sold in shop B. Ratio of keypad and touch screen Samsung mobile sold in shop B is same as the ratio of keypad and touch screen Nokia mobile sold in the same shop. If 5% of the total mobile sold in the shop is keypad Nokia mobile then find the number of ONEPLUS keypad mobile sold in the shop?

a) 20

b) 23

c) 21

d) 75

e) 22

18) If the ratio of the keypad and touch screen Nokia mobile sold in shop D is 2:1 then find the total number of touch screen mobile sold in the shop?

a) 2000

b) 1880

c) 1250

d) 1540

e) None of these

19) Total 320 touch screen Samsung mobile sold in shop E. Total number of Nokia Keypad mobile sold is 50 then find total number Touch screen Keypad mobile sold in the shop E.

a) 720

b) 640

c) 620

d) 450

e) CND

20) Number of Samsung Keypad mobile sold out of the total Samsung mobile sold in shop C is 40% less than the same in shop D. If out of the total number of Nokia mobile sold in Shop C, 60% are Keypad Nokia mobile then find the difference between the total number of keypad mobile sold of Samsung and Nokia company.

a) 60

b) 70

c) 50

d) 40

e) None of these

Table DI

Directions (21 - 25): Study the following information carefully and answer the questions given below.

Different numbers of students learn English and Hindi from five cities [X, Y, Z, M, & N]. Number of students who learn English and Hindi and the Ratio of boys and girls who learn English and Hindi from each city is given in the table.

CITY	Number of students who learn English	Number of students who learn Hindi	Ratio of boys and girls who learn English	Ratio of boys and girls who learn Hindi
X	A+200	A+30	5:2	5:4
Y	C+D	B-C	2:1	1:3
Z	B-20	D+20	3:5	3:1
M	D-80	160	3:2	3:5
N	40+C	B+D	1:3	5:3

NOTE: -

a) Number of girls who learn English from city X is 100.

b) Number of boys who learn English from city N is 40.

c) Number of boys who learn Hindi from city Y is 25.

d) Number of girls who learn Hindi from city N is 150.

21) Find the difference between the number of boys who learn English from city Z and M together and the number of girls who learn Hindi from X and N together.

A. 66

B. 67

C. 63

D. 95

E. 90

22) Average age of the boys who learn English in city Y is 15 years and the Average age of girls

who learn Hindi in the same city is 17 years. Find the difference in the average age of all the students who learn English and all the students who learn Hindi of city Y if the average age of all boys who learn English and Hindi is 16 and the average age of all girls who learn English and Hindi is 15.

A. 3.32

B. 4.69

C. 6.35

D. 4.25

E. 2.35

23) Find the value of H.

H=55.55% of D + 45.45% of B + 13.32 % of A – C% of 40.

A. 110

B. 172

C. 124

D. 159

E. None of these

24) Which of the statements is true depends on the given Data?

(i) Difference in the number of boys and girls who learn Hindi from city Z is equal to the difference between the number of boys and girls who learn English from city N.

(ii) Number of boys who learn English from city Y is equal to the number of students who learn Hindi from city Z.

(iii) 120% of the number of boys who learn English from city M is equal to the 48% of the number of boys who learn Hindi from city Z.

A. Both ii & iii are true

B. Only i is true

C. Only iii is true

D. Only ii is true

E. None of these

25) Total number of boys who learn English from cities X, Z, and M together is what percent of the total number of girls who learn Hindi from cities Y, Z, and M?

A. 206.66%

B. 214.33%

C. 102.36%

D. 120.36%

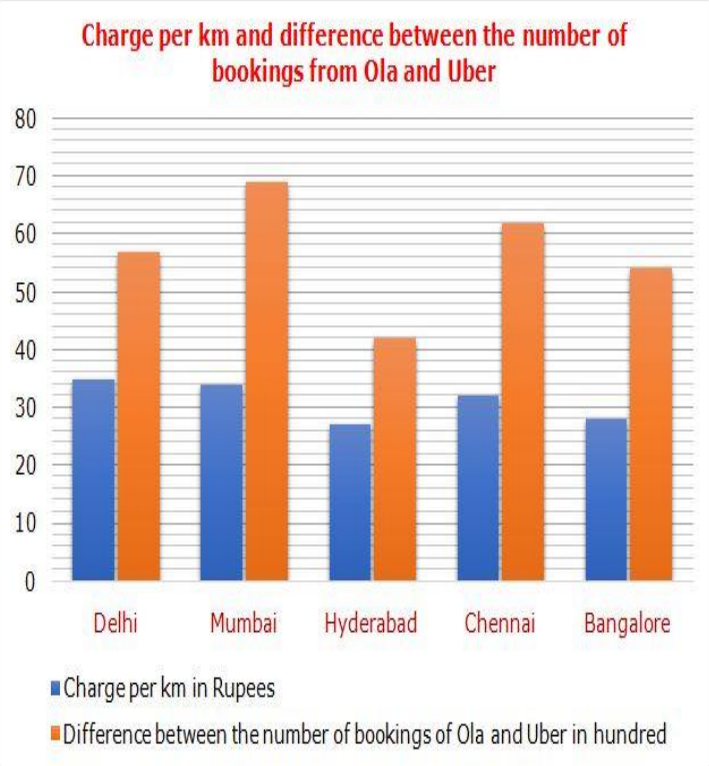
E. None of these

Bar graph and Table DI

Directions (26 - 30): Study the following information carefully and answer the questions given below.

The below graph shows the difference between the number of bookings from ola and uber and

charge per km in five different cities Delhi, Mumbai, Hyderabad, Chennai and Bangalore.



Note: Ratio of the number of bookings of Ola and Uber and the average number of km travelled by the persons of Ola and Uber is given below:

Cities	Ratio of number of bookings of Ola and Uber respectively	Average number of km travelled by the persons	
		Ola	Uber
Delhi	3:4	25	21
Mumbai	8:11	23	20
Hyderabad	7:13	18	20
Chennai	5:3	28	30
Bangalore	11:5	19	23

26) In a festive season Ola and Uber in Delhi gives 20% discount to its customer from the per kilometre charge. So, the Ola and Uber gets 33.33% and 25% more new customers respectively. What is the difference between the total amount earned by Ola and Uber?

a) 7460

b) 7540

c) 7980

d) 8120

e) 8090

27) In Ahmedabad, the number of bookings through Ola is 28.571% of the total number of bookings through Ola in all cities and the number of bookings through Uber is 20% of the total number of bookings through Uber in all cities. Average number of bookings through Ola and Uber in Ahmedabad is approximately how much percentof the total number of bookings through Ola in Chennai?

a) 110.12%

b) 108.24%

c) 97.78%

d) 106.45%

e) 107.63%

28) Ratio between the number of bookings through Ola in the city Lucknow to the city

Hyderabad is 5:7 and the number of bookings through Uber in the city Lucknow is 5/31 of the number of bookings through Uber in the city Chennai. Find the respective ratio to the number of bookings through Ola in Lucknow to the number of bookings through Uber in Lucknow.

a) 2:1

b) 6:5

c) 3:8

d) 5:3

e) 7:3

29) Average number of total bookings through Ola in all five cities together is how much percent of average number of total bookings through Uber in all five cities together?

a) 91.91%

b) 92.68%

c) 91.63%

d) 85.83%

e) 69.59%

30) What is the difference between the total amount earned by Ola in Chennai, Mumbai and Bangalore and the total amount earned by Uber in Delhi, Hyderabad and Chennai?

a) 29824

b) 29436

c) 29542

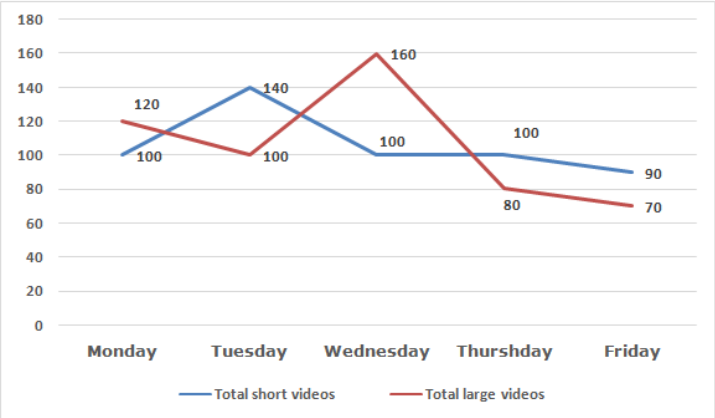
d) 22546

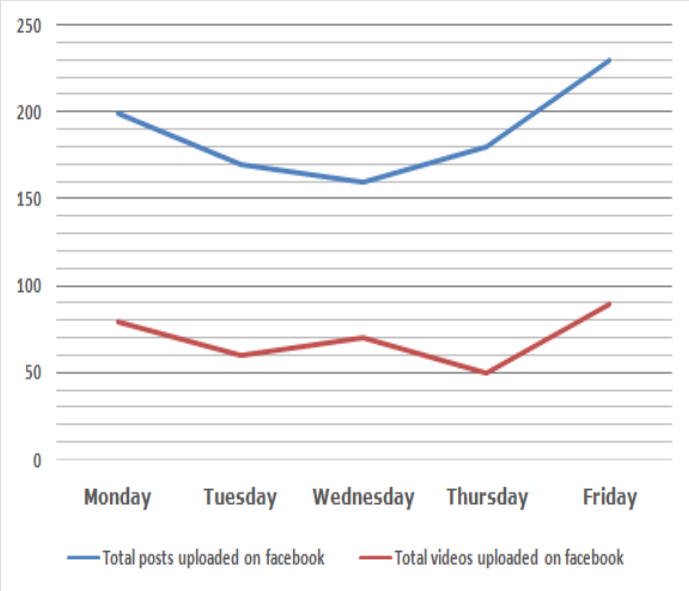
e) 21453

Line Graph

Directions (31 - 35): Study the following information carefully and answer the questions given below.

A survey is conducted on the number of posts uploaded on YouTube, Facebook and Instagram in an area. Total posts in YouTube consists of total short video posts and total large video posts uploaded. Total number of short video and large video posts in YouTube is given in the first line graph. Total posts on Facebook consist of total photos posted and total videos uploaded. Total number of posts uploaded and videos uploaded is given in the second line graph. Total posts on Instagram consists of total reels uploaded and total photos posted.





Note: - Total posts uploaded on Instagram on each day is equal to the total posts uploaded on YouTube on each day respectively. Total reels uploaded each day on Instagram is equal to the total videos uploaded on Facebook on each day respectively.

31) Find the difference between the total number of large videos uploaded on YouTube on Tuesday and Friday together and total number of Reels uploaded on Instagram on the same days?

a) 10

b) 30

c) 20

d) 15

e) 13

32) Total posts [YouTube + Facebook + Instagram] on Tuesday is approximately what percent of the total number posts [YouTube + Facebook + Instagram] on Friday?

a) 132.32%

b) 105.36%

c) 142.33%

d) 118.18%

e) 102.36%

33) Find the ratio between the total videos uploaded on Facebook on Monday, Wednesday and Friday together and total photos posted on Instagram on the same days?

a) 7:9

b) 3:5

c) 5:7

d) 2:3

e) None of these

34) Find which of the following option is true.

a) Total videos uploaded on Monday and Tuesday together on Facebook is 140.

b) The difference between the videos uploaded on Facebook and YouTube on Friday was 20.

c) The total number of posts uploaded on YouTube in all the days together is equal to 1200.

d) The total number of posts uploaded on Facebook in all days together is equal to 1000.

e) None of these

35) Find the difference between the total photos posted on Instagram in all the days together and the total short videos uploaded on YouTube in all the days together.

a) 180

b) 120

c) 140

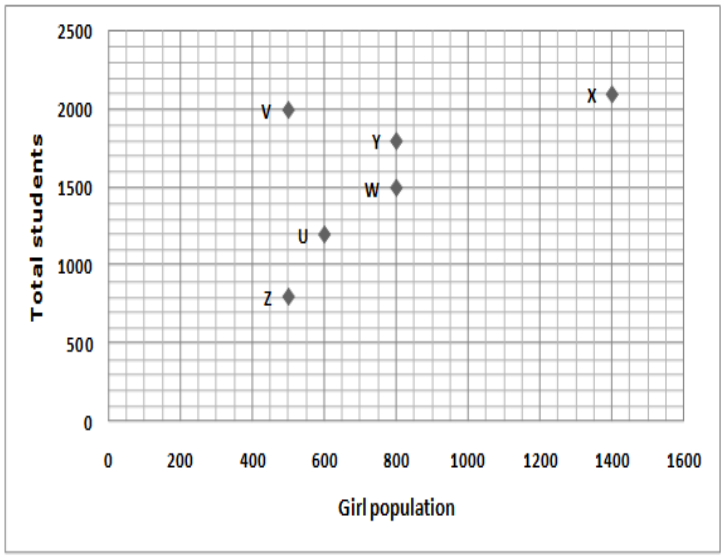
d) 130

e) None of these

Scatter Graph

Directions (36 - 40): Study the following information carefully and answer the questions given below.

Following Scatter Graph depicts 2 axis, x-axis and y-axis. Here, x-axis represents girl population and y-axis represents total students (boys+girls) in all the 6 schools, U, V, W, X, Y and Z.



36) Cumulative girls count is approximately how much per-cent more or less than the boys count in all the schools together?

a) 8%

b) 4%

c) 10%

d) 12%

e) None of these

37) In school X, 30% boys and 45% girls are from rural areas. In school Y, 35% boys and 25% girls are from urban areas. Find the sum of urban population in school X and rural population in school Y.

a) 3560

b) 2560

c) 2510

d) 3510

e) None of these

38) Find the ratio of total girl population in school V, W and Z to that of boy population in schools V, W and Z.

a) 19:25

b) 18:23

c) 18:29

d) 11:25

e) None of these

39) Total number of boys in schools, U, V, X and Z together are how much less or more than the total number of boys in rest of the schools together?

a) 1000

b) 1250

c) 1500

d) 1400

e) None of these

40) In school W each girls and each boys received Rs. 20 and Rs. 35, respectively as pocket money. In school Y each girls and each boys received 35% more and 40% less amount than those of school W, respectively as pocket money. Find the difference between pocket money of boys and girls in school Y.

a) 6

b) 10

c) 12

d) 9

e) None of these

Number series

Directions (41 - 43): Study the following information carefully and answer the questions given below.

41) Find the difference between the wrong number of the series.

SERIES -1: 12,23,57,181,739

SERIES -2: 29,64,197,791,3963

a) 630

b) 673

c) 610

d) 258

e) 695

42) Find the sum of the missing number of the two series.

SERIES-1: 2208,1848,1680,1368, ?

SERIES -2: 45,80,125,180,245, ?

a) 1360

b) 1410

c) 2560

d) 1280

e) 1240

43) Find which one is true.

Series -1: 40,41,84,256,1024

SERIES -2: 789,808,785,812,783

I. Difference of the wrong number is divided by 4.

II. The wrong number of the series 1 is a Perfect cube number.

a) only I is true

b) only ii is true

c) Both are true

d) Both are false

e) None of these

New pattern quadratic equation

44) Match the following column (1) and column (2):

Quadratic Equations	Relation between Roots
(i) $2x^2-7x-39=0$	(a) Sum of the square of the both roots will be 20
(ii) $3y^2+18y+24=0$	(b) Square of the smallest root is 11more than the biggest root.
(iii) $z^2-9z=70$	(c) Sum of the both roots will be 3.5

a) (i) – (a), (ii) – (b), (iii) – (c)

b) (i) – (b), (ii) – (c), (iii) – (a)

c) (i) – (a), (ii) – (c), (iii) – (b)

d) (i) – (c), (ii) – (a), (iii) – (b)

e) (i) – (b), (ii) – (a), (iii) – (c)

45) Match the following column (1) and column (2):

Quadratic Equations	Relation between Roots
(i) $3x^2-5x-42=0$	(a) Square of the smaller root is 4 more than 10 times of the bigger root
(ii) $y^2-45y+464=0$	Multiplication of both roots will be – 14
(iii) $2z^2+4z-96=0$	(c) Twice of the smaller root is 3 more than the bigger root

a) (i) – (a), (ii) – (b), (iii) – (c)

b) (i) – (b), (ii) – (c), (iii) – (a)

c) (i) – (a), (ii) – (c), (iii) – (b)

d) (i) – (c), (ii) – (b), (iii) – (a)

e) (i) – (b), (ii) – (a), (iii) – (c)

Application sums

Directions (46 - 48): Study the following data carefully and answer the questions:

46) A boat is streaming in a river and speed of stream is 22(2/9) % of speed of the boat in still water. If the total time taken by the boat to go 1.54 km upstream and come back is 3 minutes, then which of the following is/are true?

A: The boat will cover 3.24 km in still water in 3 minutes.

B: Time taken by the boat to come back is 80 seconds.

C: Difference between speed of boat in still water and speed of stream is 21 m/s

a) Only A and C are True

b) All are true

c) Only A is True

d) Only B and C are True

e) Only A and B are True

47) If the difference between compound interest and simple interest on a certain sum at a certain rate of interest after 2 years is Rs.72 and after 3 years is Rs.224.64, then which of the following can be determined?

A: The certain amount.

B: Rate of interest.

C: Simple interest at same amount at same rate of interest after 3 years.

a) Only A and C

b) All A, B and C

c) Only A

d) Only B and C

e) Can't be determined

48) Time taken by train A to cross a platform is 9 seconds and that taken by train B to cross the same platform is ___ seconds. Ratio of speeds of train A to train B is 3: 2 and length of train B is 50 m more than that of train A. Length of the platform is 80% of length of train A and train A will cross train B in 7 seconds while running in opposite direction.

What value will be filled in the blank?

a) 12 seconds

b) 20 seconds

c) 15 seconds

d) 18 seconds

e) 16 seconds

Data Sufficiency

Directions (49 - 50): Study the following data carefully and answer the questions:

49) Two inlet pipes A and C and an outlet pipe B are connected to a tank. Pipes A and B together can fill a tank in 30 minutes. In what time pipe B alone can empty the fully filled tank?

Statement I: Ratio of A's efficiency to C's efficiency is 1: 2.

Statement II: Time taken by pipe B alone to empty the fully filled tank is 10 minutes more than that taken by pipe C alone to fill the tank.

Statement III: Pipes A, B and C together can fill the tank in (30/7) minutes.

a) Statement III alone is sufficient to answer the question, but the other two (each alone individually) are not sufficient.

b) Statement I alone is sufficient to answer the question, but the other two (each alone individually) are not sufficient.

c) Any 2 statements together are sufficient to answer the question

d) Statement II alone is sufficient to answer the question, but the other two (each alone individually) are not sufficient.

e) Both (a) and (c)

50) Average of present ages of A, B and C is 27 years, Find the difference between present ages of B and C.

Statement I: Sum of A's present age and 2 times of C's present age is 66 years.

Statement II: After 2 years, ratio of A's age to B's age will be 3: 7.

a) Statement I alone is sufficient to answer the question but the statement II alone is not sufficient.

b) Statement II alone is sufficient to answer the question but the statement I alone is not sufficient.

c)Both statements I and II together are needed to answer the question.

d) Either statement I alone or statement II alone is sufficient to answer the question.

e) Both the statements together are not sufficient to answer the question.

Answer With Explanation

Directions (1 – 5):

Let total number of tickets booked = 100a

For P

Total number of tickets booked = 18% x 100a = 18a

Ratio of price per ticket for MT to PB = 1:2

Ratio of revenue generated from MT to PB = 5:8

So, ratio of number of tickets booked on MT and PB = 5/1:8/2 = 5:4

So, number of tickets booked for MT = 5/9 x 18a = 10a

Number of tickets booked for PB = 4/9 x 18a = 8a

For Q

Total number of tickets booked = 15% x 100a = 15a

Ratio of price per ticket for MT and PB = 1:2

Ratio of revenue generated from MT and PB = 1:2

So, ratio of number of tickets booked on MT and PB = 1/1:2/2 = 1:1

So, number of tickets booked for MT = 1/2 x 15a = 7.5a

Number of tickets booked for PB = 1/2 x 15a = 7.5a

For R

Total number of tickets booked = 12% x 100a = 12a

Ratio of price per ticket for MT and PB = 1:2

Ratio of revenue generated from MT and PB = 5:6

So, ratio of number of tickets booked on MT and PB = 5/1:6/2 = 5:3

So, number of tickets booked for MT = 5/8 x 12a = 7.5a

Number of tickets booked for PB = 3/8 x 12a = 4.5a

For S

Total number of tickets booked = 25% x 100a = 25a

Ratio of price per ticket for MT and PB = 1:2

Ratio of revenue generated from MT and PB = 8:9

So, ratio of number of tickets booked on MT and PB = 8/1:9/2 = 16:9

So, number of tickets booked for MT = 16/25 x 25a = 16a

Number of tickets booked for PB = 9/25 x 25a = 9a

For T

Total number of tickets booked = 30% x 100a = 30a

Ratio of price per ticket for MT and PB = 1:2

Ratio of revenue generated from MT and PB = 1:1

So, ratio of number of tickets booked on MT and PB = 1:1/2 = 2:1

So, number of tickets booked for MT = 2/3 x 30a = 20a

Number of tickets booked for PB = 1/3 x 30a = 10a

Now,

40 x (10a + 7.5a + 7.5a + 16a + 20a) + 80 x (8a + 7.5a + 4.5a + 9a + 10a) = 22240

61a + 78a = 556

So, value of a = 556/139

So, value of a = 4

Now, we can find all the related data,

Name of Web site	Total tickets booked	Tickets booked to MT	Tickets booked to PB
P	72	40	32
Q	60	30	30
R	48	30	18
S	100	64	36
T	120	80	40
Total	400	244	156

1. Answer: B

According to question,

For P

Let number of tickets cancelled for MT = 6b

Now,

40 x 40 – 6b x (40 – 5) = Rs. 1180

6b x 35 = 420

Value of b = 2

So, number of tickets cancelled for PB = 5 x 2 = 10

Revenue generated by from tickets for PB = (32 – 10) x 80 + 10 x 10 = 1760 + 100 = 1860

Hence answer is B

2. Answer: D

According to question,

(3P + 5Q + 10) = 100

3P + 5Q = 90…….... (1)

4P + 10Q – 24 = 120

2P + 5Q = 72…….... (2)

On solving both equations, we get

Value of P = 18

Value of Q = 7.2

Required % = (18 – 7.2)/18 x 100 = 60% Less

Hence answer is option D

3. Answer: C

For website U,

Number of tickets booked to MT = (30 x 40)/120 = 10

Number of persons travelled to MT = 10 – 3 = 7

Number of tickets booked to PB = (18 x 80)/60 = 24

Required number of persons = 24 + 7 = 31

Hence answer is option C

4. Answer: A

Value of M = 72 – 48 = 24

Value of N = 120 – 100 = 20

M > N

Hence answer is option A

5. Answer: E

Revenue generated by website Q = 30 x 40 + 30 x 80 = Rs. 3600

Hence answer is option E

Directions (6 - 10):

Let the number of employees in the accounts department of organization A is 4x and In the IT department, it is 5x.

The number of employees in the accounts department of organization B is 7x.

number of employees in the IT department of organization B is =7x-100

9x=360, or, x=40

Number of employees in the Accounts department of A = 40×4=160

Number of employees in the IT department of A=5×40=200

Number of employees in the IT department of B =7×40-100=180

Number of employees in the IT department of C is=300-180=120

Number of employees in the IT department of D is=120×3/4=90

Number of employees in the Accounts department of C is=90+50=140

Number of employees in the Accounts department of D is=215-90=125

Number of employees in the Accounts department of E is= 125×4/5=100

Number of employees in the IT department of E is=125+125=250

Organizations	Number of employees in Accounts department	Number of employees in IT department
A	160	200
B	280	180
C	140	120
D	125	90
E	100	250

6. Answer: C

Post-graduate in Accounts is=160×60/100=96

Graduate in accounts is=160-96=64

Graduate in IT is=200×60/100=120

Postgraduate in IT is=200-120=80

Required ratio = (64+80): (96+120) =2:3

7. Answer: D

According to the question,

280x-180(x-2000) =2760000

Or, 100x=240000

Or, x=24000

Total salary of the IT department of D is=26000×90=2340000

8. Answer: B

Male in Marketing department is =140×110/100=154

Female in marketing department is=280×90/100=252

So, thetotal number of employees is=154+252=406

9. Answer: A

44.44% of number employees in IT department of B is =180×44.44/100=80

Now try option A,

50% of account department employees is=160×50/100=80

So, it satisfies.

10. Answer: A

Employee in Accounts department of F is= [160+140]/2=150

Employee in IT department of F is= [120+90]/2=105

Required difference=150-105=45

Direction (11-15):

Let the total number of Orchids and Lilies bloomed in 2020 be '20x' and '25x' respectively.

Also, let the number of Orchids and Lilies bloomed in summer in 2020 are '7y' and '9y' respectively.

So, the number of Orchids bloomed in winter in 2020 = 20x – 7y

And the number of Lilies bloomed in winter in 2020 = 25x – 9y

Now,

7y – (20x – 7y)= 20

14y-20x=20

7y – 10x = 10 ----------(1)

And,

9y – (25x – 9y) = 30

18y – 25x = 30 ----------(2)

By equation (2) * 2 – equation (1) * 5:

(36y – 50x) – (35y – 50x) = 60 – 50

y = 10, x = 6

Total number of Orchids bloomed in 2020 = 20 * 6 = 120

Total number of Lilies bloomed in 2020 = 25 * 6 = 150

Total number of Roses bloomed in 2020 = 120 * (15/20) = 90

Total number of Tulips bloomed in 2020 = 120 * (30/20) = 180

Total number of Daisies bloomed in 2020 = 120 * (10/20) = 60

Flowers	The number of flowers bloomed in 2020		The number of flowers bloomed in 2021	
	In Summer	In Winter	In Summer	In Winter
Rose	(90 + 30)/2 = 60	(90 – 30)/2 = 30	2 * 50 – 60 = 40	2 * 40 – 30 = 50
Tulip	(180 – 20)/2 = 80	(180 + 20)/2 = 100	2 * 70 – 80 = 60	2 * 60 – 100 = 20
Orchid	(120 + 20)/2 = 70	(120 – 20)/2 = 50	2 * 60 – 70 = 50	2 * 40 – 50 = 30
Lily	(150 + 30)/2 = 90	(150 – 30)/2 = 60	2 * 70 – 90 = 50	2 * 70 – 60 = 80
Daisy	(60 – 20)/2 = 20	(60 + 20)/2 = 40	2 * 30 – 20 = 40	2 * 50 – 40 = 60

11. Answer: E

Total number of Roses bloomed in both the years together:

60 + 30 + 40 + 50 = 180

Total number of Daisies bloomed in both the years together:

20 + 40 + 40 + 60 = 160

Required ratio = 180: 160 = 9: 8

12. Answer: E

Total number of Orchids bloomed in 2020 = 70 + 50 = 120

Total number of Orchids bloomed in 2021 = 50 + 30 = 80

So, required difference = (120 * 10) – (80 * 15) = Rs.0

13. Answer: B

Total number of flowers bloomed in summer in 2020:

60 + 80 + 70 + 90 + 20 = 320

Total number of flowers bloomed in winter in 2020:

30 + 100 + 50 + 60 + 40 = 280

Required percentage = (280/320) * 100 = 87.5%

14. Answer: C

Total number of Orchids, Lilies, and Daisies together bloomed in summer in 2021 = 50 + 50 + 40 = 140

Total number of Orchids, Lilies, and Daisies together bloomed in winter in 2021 = 30 + 80 + 60 = 170

Required average = (140 + 170)/2 = 155

15. Answer: D

Total number of Tulips bloomed in both the years together:

80 + 100 + 60 + 20 = 260

Total number of Lilies bloomed in both the years together:

90 + 60 + 50 + 80 = 280

Required percentage = [(280 – 260)/280] * 100 = 7.14% (approx.)

16. Answer: D

20% of total mobile = 2000 * 20/100 = 400

So, 400 ONEPLUS mobiles phones are sold in shop A.

Number of NOKIA mobiles sold in shop A = 5 * 400/4 = 500

Number of Samsung mobiles sold in shop A= 2000 – 500 – 400 = 1100

Number of Samsung keypad mobiles sold in shop A = 1100 – 600 = 500

Number of Nokia keypad mobiles sold in shop A = 500 * 3/5 = 300

Number of ONEPLUS keypad mobiles sold in shop A = 400 – 100 = 300

Total keypad mobiles sold in shop A = 500 + 300 + 300 = 1100

17. Answer: D

So, according to the question, 60% = 360

Or, 100% = [360/60] * 100 = 600

So, total number of mobiles sold in the shop = [600/60] * 100 = 1000

Ratio of keypad and touch screen Nokia mobile sold is 2:3.

Total Nokia Keypad mobile sold in the shop = 1000 * 5/100 = 50

Number touch screen Nokia mobile sold = 3 * 50/2 = 75

So, the total number of Nokia mobile sold = 50 + 75 = 125

Total number of ONEPLUS mobile sold = 1000 – 600 – 125 = 275

Number of Keypad ONEPLUS mobile sold = 275 – 200 = 75

18. Answer: D

Total touch screen Samsung mobile sold = [3000 * 60/100] – 800 = 1000

Total touch screen Nokia mobile sold = [3000 * 40/100] * (3/5) * (1/3) = 240

Total touch screen mobile sold in the shop = 1000 + 240 + 300 = 1540

19. Answer: E

According to the question, [50 * 80/100] % of the total mobile sold in the shop is 320.

So, the total number of mobiles sold = [320 * 100/40] = 800

Total number of Nokia and ONEPLUS mobile phones sold is 400 but we cannot calculate it individually.

So, the answer is CND.

20. Answer: A

Number of Samsung keypad mobiles sold in shop C = 800 * 60/100 = 480

Number of Nokia Keypad mobiles sold in shop C = 2400 * [60/100] * [5/8] * [60/100] = 540

Required sum = 540 – 480 = 60.

Directions (21 - 25):

Number of girls who learn English from city X is 100, so we can say,

(A+200) *2/7=100

Or, 2A=700-400=300 or, A=150

Number of boys who learn English from city N is 40, so we can say,

(40+C. *1/4=40

Or C=120

Number of boys who learn Hindi from city Y is 25, so we can say,

(B-120) *1/4=25 or, B=220

Number of girls who learn Hindi from city N is 150, so we can say,

(220+D. *3/8=150

Or, 3D=1200-660=540 or, D=180

If we put the values, we will get the number of students who learn English and Hindi from the different cities.

CITY	Number of students who learn English	Number of boys who learn English	Number of girls who learn English	Number of students who learn Hindi	Number of boys who learn Hindi	Number of girls who learn Hindi
X	A+200=150+200 =350	300*5/7=250	100	A+30=180	180*5/9 =100	80
Y	C+D=120+180 =300	300*2/3=200	100	B-C=100	100*1/4 =25	75
Z	B-20=220-20 =200	200*3/8=75	125	D+20=200	200*3/4 =150	50
M	D-80=180-80 =100	100*3/5=60	40	160	160*3/8 =60	100
N	40+C=120+40 =160	160*1/4=40	120	B+D=400	400*5/8 =250	150

21. Answer: D

Required difference is = [(80+150) - (75+60)] =95

22. Answer: D

Total age of girls who learn English from city Y is =15*175-17*75=1350

Average age of all the students who learn English from city Y is

= [1350+15*200] / 300=4350/300=14.5

Total age of boys who learn Hindi from city Y is =16*225-15*200=600

Average age of all the students who learn Hindi from city Y is

= [600+17*75]/100=18.75

Required difference=18.75-14.5=4.25

23. Answer: B

H=55.55% of D + 45.45% of B + 13.32 % of A – C% of 40

=55.55*180/100+45.45*220/100+13.32*150/100-120*40/100

=100+100+20-48=172

24. Answer: A

(i) Difference in the number of boys and girls who learn Hindi from city Z is = 150-50=100

Difference of number of boys and girls who learn English from city N=120-40=80

So, i is not true.

(ii) Number of boys who learn English from city Y is=200

Number of students who learn Hindi from city Z is=200

So, ii is true.

(iii) 120% of the number of boys who learn English from city M is

= 120*60/100=72

48% of the number of boys who learn Hindi from city Z is

=48*150/100=72

So, iii is true.

25. Answer: E

Required percentage = [(250+75+60)/(75+50+100)]*100

=171.11111111%

Directions (26 - 30):

From the bar graph we have form the following table:

City	Charge per km in Rupees	Difference between the number of bookings of Ola and Uber
Delhi	35	57
Mumbai	34	69
Hyderabad	27	42
Chennai	32	62
Bangalore	28	54

Also from the note,

Let us take the number of bookings of ola and uber in Delhi is 3x and 4x.

Given, difference between the number of bookings of ola and uber in Delhi is 57.

4x – 3x = 57

x = 57

Therefore, number of bookings of ola and uber in Delhi is 3 *57 and 4 * 57 = 171 and 228

Similarly, we can find the number of bookings of ola and uber in all other cities.

Then we form the following table:

Cities	Number of bookings		Average number of km travelled by the persons	
	Ola	Uber	Ola	Uber
Delhi	171	228	25	21
Mumbai	184	253	23	20
Hyderabad	49	91	18	20
Chennai	155	93	28	30
Bangalore	99	45	19	23

26. Answer: C

Required per km charge = (100 – 20)/100 * 35 = 28

Total number of customers booking through ola = (100 + 33.33)/100 * 171 = 228

Total number of customers booking through uber = (100+ 25)/100 * 228 = 285

Required difference = (285 * 21 * 28) – (228 * 25 * 28)= 167580 – 159600 = 7980

27. Answer: D

Total number of bookings through Ola in all cities = 171 + 184 + 49 + 155 + 99 = 658

Total number of bookings through Uber in all cities = 228 + 253 + 91 + 93 + 45 = 710

Number of bookings through Ola in Ahmedabad = 28.571/100 * 658 = 188

Number of bookings through Uber in Ahmedabad = 20/100 * 710 = 142

Required average = (188 + 142)/2 = 165

Required Percentage = 165/155 * 100 = 109.819 ≅ 106.45

28. Answer: E

Number of bookings through Ola in Hyderabad = 49

ATQ,

7x = 49

x = 7

Total number of bookings through Ola in Lucknow = 5 * 7 = 35

Number of Bookings through Uber in Lucknow = 5/31 * 93 = 15

Respective ratio = 35:15 = 7:3

29. Answer: B

Average number of bookings through Ola in all cities = (171 + 184 + 49 + 155 + 99)/5 = 658/5 = 131.6

Average number of bookings through Uber in all cities = (228 + 253 + 91 + 93 + 45)/5 = 710/5 = 142

Required Average = 131.6/142 * 100 = 92.676 ≅ 92.68%

30. Answer: B

Total amount earned by Ola in Chennai, Mumbai and Bangalore = (155 * 28 * 32 + 184 * 23 * 34 + 99 * 19 * 28) = (138880 + 143888 + 52668) = 335436

Total amount earned by Uber in Delhi, Hyderabad and Chennai = (228 * 21 * 35 + 91 * 20 * 27 + 93 * 30 * 32) = (167580 + 49140 + 89280) = 306000

Required difference = 335436 – 306000 = 29436

Directions (31 - 35):

	YouTube			Facebook			Instagram		
Days	Total short videos uploaded	Total large videos uploaded	Total posts uploaded	Total posts uploaded	Total photos posted	Total videos uploaded	Total posts uploaded	Total reels uploaded	Total photos posted
Monday	100	120	100 + 120 = 220	200	200-80= 120	80	220	80	220 - 80 = 140
Tuesday	140	100	240	170	110	60	240	60	180
Wednesday	100	160	260	160	90	70	260	70	190
Thursday	100	80	180	180	130	50	180	50	130
Friday	90	70	160	230	140	90	160	90	70

31. Answer: C

Required difference = [100 + 70] – [60 + 90] = 20

32. Answer: D

Required percentage = [(240 + 170 + 240)/ (160 + 230 + 160)] * 100 = 118.18% (approx.)

33. Answer: B

Required ratio = [80 + 70 + 90]: [140 + 190 + 70] = 240:400 = 3:5

34. Answer: A

Total videos uploaded on Monday and Tuesday together on Facebook = 80 + 60 = 140.

So, option A is true.

35. Answer: A

Required difference = [140 + 180 + 190 + 130 + 70] - [100 + 140 + 100 + 100 + 90] = 180

Directions (36 - 40):

Schools	Total students	Girl students	Boy students
U	1200	600	600
V	2000	500	1500
W	1500	800	700
X	2100	1400	700
Y	1800	800	1000
Z	800	500	300
Total	9400	4600	4800

36. Answer: B

According to question,

Total number of girls in all the schools together = 4600

Total number of boys in all the schools together = 4800

Girls are less than boys by (200/4800) * 100 = (25/6) % = 4% (approx.)

Hence, answer is option B

37. Answer: C

According to question,

In school X,

30% boys are from rural areas = 210

45% girls are from rural areas = 630

Urban population in school X = 2100 – 210 – 630 = 1260

In school Y,

35% boys are from urban areas = 350

25% girls are from urban areas = 200

Rural population in school Y = 1800 – 350 – 200 = 1250

Sum of urban population in school X and rural population in school Y = 1260 + 1250 = 2510

Hence, answer is option C

38. Answer: E

According to question,

Girls population in school V = 500

Girls population in school W = 800

Girls population in school Z = 500

Boys population in school V = 1500

Boys population in school W = 700

Boys population in school Z = 300

Ratio of total girl population and boy population in schools V, W and Z = 1800:2500 = 18:25

Hence, answer is option E

39. Answer: D

According to question,

Total boys in schools, U, V, X and Z = 600 + 1500 + 700 + 300 = 3100

Total boys in schools, W and Y = 700 + 1000 = 1700

Total boys in schools, U, V, X and Z are more than the boys in schools W and Y by 1400.

Hence, answer is option D

40. Answer: A

According to question,

In school W, pocket money

Girls are received Rs. 20

Boys are received Rs. 35

In school Y, pocket money

Girls are received Rs. 27

Boys are received Rs. 21

Difference between pocket money of boys and girls in school Y = 27 – 21 = 6

Hence, answer is option A

41. Answer: C

12 23 57 **182** 739

×1+11 ×2+11 ×3+11 ×4+11

So, the wrong number is 181

29 64 197 **792** 3963

×2+6 ×3+5 ×4+4 ×5+3

So wrong number is 791

So required difference =791-181=610

42. Answer: D

SERIES-1: 2208 1848 1680 1368 960

47^2-1 43^2-1 41^2-1 37^2-1 31^2-1

SERIES-2: 45 80 125 180 245 320

35 45 55 65 75

Required sum =960+320=1280

43. Answer: A

SERIES-1: 40 41 84 **255** 1024

x1+1 x2+2 x3+3 x4+4

So, the wrong number is 256

SERIES -2: 789 808 785 **814** 783

+19 -23 +29 -31

So, the wrong number is 812

Difference is=812-256=556

556 is divisible by 4 but 256 is not a perfect cube number.

44. Answer: D

From (i):

$2x^2 - 7x - 39 = 0$

$2x^2 + 6x - 13x - 39 = 0$

$2x(x+3) - 13(x+3) = 0$

$(2x-13)(x+3) = 0$

$x = -3, \frac{13}{2}$

Sum of the both roots = 13/2 – 3 = 7/2 = 3.5

From (ii):

$3y^2 + 18y + 24 = 0$

$y^2 + 6y + 8 = 0$

$y^2 + 2y + 4y + 8 = 0$

$y(y+2) + 4(y+2) = 0$

$(y+2)(y+4) = 0$

$y = -2, -4$

Sum of the square of the both roots = $(-2)^2 + (-4)^2 = 20$

From (iii):

$z^2 - 9z = 70$

$z^2 + 5z - 14z - 70 = 0$

$z(z+5) - 14(z+5) = 0$

$(z+5)(z-14) = 0$

$z = -5, 14$

Now, $(-5)^2 = 14 + 11$

$25 = 25$

Square of the smallest root is 11more than the biggest root.

45. Answer: B

From (i):

$3x^2 - 5x - 42 = 0$

$3x^2 + 9x - 14x - 42 = 0$

$3x(x+3) - 14(x+3) = 0$

$(3x-14)(x+3)=0$

$x=-3,\frac{14}{3}$

Multiplication of both roots = - 3 * 14/3 = - 14

From (ii):

$y^2-45y+464=0$

$y^2-29y-16y+464=0$

$y(y-29)-16(y-29)=0$

$(y-16)(y-29)=0$

$y=16,29$

Now, 2 * 16 = 29 + 3

32 = 32

Twice of the smaller root is 3 more than the bigger root.

From (iii):

$2z^2+4z-96=0$

$z^2+2z-48=0$

$z^2+8z-6z-48=0$

$z(z+8)-6(z+8)=0$

$(z+8)(z-6)=0$

$z=-8,6$

Now, $(-8)^2=10*6+4$

64 = 64

Square of the smaller root is 4 more than 10 times of the bigger root.

46. Answer: C

Ratio of speed of boat in still water to speed of stream:

1: (200/900) = 9: 2

Let the speed of the boat in still water and the speed of the stream are '9x' m/s and '2x' m/s respectively.

So,

[1540/ (9x – 2x)] + [1540/ (9x + 2x)] = 180

(220/x) + (140/x) = 180

x = 2

Speed of boat in still water = 9 * 2 = 18 m/s

Speed of stream = 2 * 2 = 4 m/s

From A:

Speed of boat in still water = 9 * 2 = 18 m/s

So, time taken by boat to cover 3.24 km in still water = (3240/18) = 180 seconds = 3 minutes

So, A is true.

From B:

Speed of boat in still water = 9 * 2 = 18 m/s

Speed of stream = 2 * 2 = 4 m/s

So, time taken by boat to come back = 1540/ (18 + 4) = 70 seconds

So, B is not true.

From C:

Speed of boat in still water = 9 * 2 = 18 m/s

Speed of stream = 2 * 2 = 4 m/s

Difference between speed of boat in still water and speed of stream = 18 – 4 = 14 m/s

So, C is not true.

Hence, only A is true.

47. Answer: B

Let the certain amount = 'P' rupees

Also let the rate of interest = R%

Since, difference between CI and SI after 2 years = Rs.72

So,

$72 = P * (R/100)^2$ ----------(1)

Since, difference between CI and SI after 3 years = Rs.224.64

So,

$224.64 = P * (R/100)^2 * (300 + R)/100$ ----------(2)

From equations (1) and (2):

$224.64 = 72 * (300 + R)/100$

$312 = 300 + R$

$R = 12\%$

From equation (1):

$72 = P * (12/100)^2$

$P = Rs.5000$

From A:

The certain amount = Rs.5000

From B:

Rate of interest = 12%

From C:

SI at Rs.5000 at 12% after 3 years = (5000 * 12 * 3)/100 = Rs.1800

Hence, all A, B and C can be determined.

48. Answer: E

Let speed of train A and train B are '3x' m/s and '2x' m/s respectively.

Also let length of train A and train B are '5y' m and (5y + 50) m respectively.

And length of the platform = 80% of '5y' = '4y' m

Since, time taken by train A to cross the platform is 9 seconds.

So, $(5y + 4y)/3x = 9$

$y = 3x$ ----------(1)

Since, train A will cross train B in 7 seconds while running in the opposite direction.

So, $(5y + 5y + 50)/ (3x + 2x) = 7$

$(2y + 10)/x = 7$ ----------(2)

From equations (1) and (2):

$6x + 10 = 7x$

$x = 10, y = 30$

Speed of train B = 2 * 10 = 20 m/s

Length of train B = 5 * 30 + 50 = 200 m

Length of the platform = 80% of 150 = 120 m

So, the value, which will be filled in the blank = (200 + 120)/20 = 16 seconds

49. Answer: C

Pipes A and B together can fill a tank in 30 minutes.

So, $(1/A) – (1/B) = (1/30)$ ----------(1)

From statement I alone:

Ratio of A's efficiency to C's efficiency = 1: 2

We can't find any relation between A and B or B and C.

So, statement I alone is not sufficient to answer the question.

From statement II alone:

Time taken by pipe B alone to empty the fully filled tank is 10 minutes more than that taken by pipe C alone to fill the tank.

We can't find any relation between A and B or A and C.

So, statement II alone is not sufficient to answer the question.

From statement III alone:

Pipes A, B and C together can fill the tank in (30/7) minutes.

$(1/A) – (1/B) + (1/C) = (7/30)$ ----------(2)

We can't find any relation between A, B and C

So, statement III alone is not sufficient to answer the question.

From statement I and II together:

Ratio of A's efficiency to C's efficiency = 1: 2

Let time taken by A alone and C alone to fill the tank are '2x' minutes and 'x' minutes respectively.

Time taken by pipe B alone to empty the fully filled tank is 10 minutes more than that taken by pipe C alone to fill the tank.

So, time taken by pipe B alone to empty the tank = (x + 10) minutes

From equation (1):

= (1/2x) – [1/ (x + 10)] = 1/30

x = 5

Time taken by pipe B alone to empty the fully filled tank = 5 + 10 = 15 minutes

So, statements I and II together are sufficient to answer the question.

From statements II and III together:

Time taken by pipe B alone to empty the fully filled tank is 10 minutes more than that taken by pipe C alone to fill the tank.

And, (1/A) – (1/B) + (1/C) = (7/30) ----------(3)

From equation (1) and (3):

C = 5

Time taken by pipe B alone to empty the fully filled tank = 5 + 10 = 15 minutes

So, statements II and III together are sufficient to answer the question.

From statements I and III together:

Ratio of A's efficiency to C's efficiency = 1: 2

And, (1/A) – (1/B) + (1/C) = (7/30) ----------(2)

From equations (1) and (2):

C = 5 minutes

Time taken by A alone to fill the tank = 5 * (2/1) = 10 minutes

From equation (1):

(1/10) – (1/B) = (1/30)

Time taken by pipe B alone to empty the fully filled tank = 15 minutes

Statements I and III together are sufficient to answer the question.

Hence, any 2 statements together are sufficient to answer the question.

50. Answer: A

Let present ages of A, B and C are 'a' year, 'b' years and 'c' years respectively.

So, a + b + c = 81 ----------(1)

From statement I alone:

Sum of A's present age and 2 times of C's present age is 66 years.

a + 2c = 66 ----------(2)

By equation (1) – (2):

b – c = 15

Difference between B's present age and C's present age is 15 years.

So, statement I alone is sufficient to answer the question.

From statement II alone:

After 2 years, ratio of A's age to B's age will be 3: 7.

So, (a + 2)/ (b + 2) = 3/7 ----------(3)

a + b + c = 81 ----------(1)

There are 3 variables and 2 equations, so both the equations can't be solved.

Statement II alone is not sufficient to answer the question.

Hence, statement I alone is sufficient to answer the question but the statement II alone is not sufficient.