MAH-CET - 2024
Slot-1

Logical Reasoning

1. There is a lot of interest in the first five ranks for Class XI students. One student guessed the rank order as Ankita, Bhagyashree, Chanchal, Devroopa and Esha. Later upon announcement of the results, it was found that not only did he get each student out off her true position, none of the students in his ranking correctly followed her immediate predecessor. Another student guessed Devroopa, Ankita, Esha, Chanchal and Bhagyashree. Even his guess was wrong. It was found that he had got two positions correct, and two students in his ranking correctly followed their immediate predecessors.

Which of the following is true about the correct rank order?

a) Devroopa got the first position
b) Esha got the fourth position
c) Bhagyashree got the fourth position
d) Chanchal got the second position
e) Ankita got the third position

2. Two ants A and B start from a point P on a circle at the same time, with A moving clock-wise and B moving anti-clockwise. They meet for the first time at 10:00 am when A has covered 60% of the track. If A returns to P at 10:12 am, then B returns to P at:

a) 10:49 AM
b) 10:23 AM
c) 10:27 AM
d) 10:39 AM
e) 10:45 AM

3. If the outer border of width 1 cm of a cube with side 5 cm is painted green on each side and remaining space enclosed by this 1 cm path is painted black. This cube then gets cut into 125 smaller cubes of each side 1 cm. If the smaller cube so obtained is separated, then how many such smaller cubes shall have one face coloured green and the adjacent face coloured black ?

a) 16
b) 2
c) 0
d) 8
e) 1

4. Complete the series given below:

149, 162536, 496481, 100121144, ?

a) 16819225
b) 169196200
c) 144289324
d) 169169225
e) 169196225

5. Question

How many 3-digit positive integers, with digits a, b and c exist such that a < band c<b?

Assume that a is in hundred's place, b is in ten's place, c is in unit's place and that a is a non-zero digit.

a) 240
b)256
c)648
d)302
e)364

6. Question

A company Offers Five types of successive discounts, specifically

Offer 1: 5% and 30%;
Offer II: 10% and 25%;
Offer III: 40% and 5%;
Offer IV: 20% and 15%; &
Offer V: 10% and 10%.

Determine, which Offer is the best for a customer?

a) offer I
b) offer II
c) offer III
d) offer IV
e) offer V

7. Question

70% of the students in a school play football, 75% play cricket, 80% play basketball and 85% play carrom.

The minimum percentage of students who play all four games is:

a)10
b)20
c)66.66

d) 15
e) 33.33

8. Question

Leaving home at the same time, Amal reaches office at 10:15 am if he travels at 8 km/hr, and at 9:40 am if he travels at 15 km/hr.

Leaving home at 9:10 am, at what speed, in km/hr, must he travel so as to reach office exactly at 10 am ?

a)14
b)12
c)13
d)15
e)11

9. Question

If India celebrated its Republic Day on a Thursday in the year 1989, then on which day of the week, would the Indians be celebrating their Independence Day in the year 1993?

a) Tuesday
b)Friday
c)Monday
d)Sunday
e)Thursday

10. Question

Two unbiased dice D1 and D2 are rolled and the number appearing on the uppermost face is noted as S1 and S2 respectively.

What is the probability that (S1 + S2) > 10?

a)7/36
b) 1/18
c)5/36
d)1/6
e)1/12

11. Question

If:
A + B = A is the son of A;
A*BA is the wife of B
A# B = A is the father of B
A@BA is the brother of B
Then:
P@L+M#N*Q
shall mean that:

a) N is the sister of L
b) L is the sister of N
c) Q is the wife of N
d) N is the brother L
e) Q is the Brother of N

12. Question

The salaries of Ajay, Abhay and Ashay were in the ratio 6:5.7 in 2018, and in the ratio 3:4:3 in 2023. If Ajay's salary increased by 25% during 2018 - 2023, then the percentage increase in Ashay's salary during this period is closest to:

a)6%
b)7%
c)5%
d)9%
e)4%

13. Question

The six faces of a wooden cube of side 6 cm are labelled A, B, C, D, E and F respectively. Three of these faces A, B, and C are each adjacent to the other two, and are painted red. The other three faces are not painted. Then, the wooden cube is neatly cut into 216 little cubes of equal size. How many of the little cubes have no sides painted at all?

a) 96
b)125
c)108
d)222
e)16

14. Question

Here are some words translated from an artificial language:

gorbiflur means fan belt
pixngorbl means ceiling fan
arthtusl means tile roof

Which word could mean "ceiling tile" in the given language

a) pixnarth
b) gorbigorbl
c) arthflur
d) gorbitusl
e) flurgorbl

15. Question

Dutta is planning to invest on annual Simple Interest plans, a sum of Rs. 15 Lakhs for the higher education of his two daughters, Deepali and Neena. Neena is 15 years and Deepali is 12 years old. Datta wishes that when Neena and Deepali turn 21 years old, they get Rs. 21 Lakhs each.

What should be the rate of interest at which Datta should invest the sum for Neena and Deepali respectively?

a) 20% and 28%
b) 10% and 28%
c) 7% and 25%
d) 18% and 28%
e) 20% and 30%

16. Question

Five Scores in a classroom are broken into Five respective different ranges:

51-60,
61-70,
71-80,
81-90 and
91-100.

The number of students who have scored in each range is given below.

51 to 60-3 students,
61 to 70 - 8 students,
71 to 80-7 students,
81 to 90-4 students, and
91 o 100-3 students.

Furthermore, we know that the number of students who scored 76 or more is atleast one more than those who scored below 75. What is the minimum possible average overall of this class?

a)74.2
b)75
c)69.2
d) 70.6
e) 72.6

17. Question

Manda walks to the market and comes back in an auto. It takes her 90 minutes to make the round trip. If she takes an auto both ways it takes her 30 minutes. On a Sunday, she decides to walk both ways. How long would it take her ?

a) 150 minutes
b) 120 minutes
c) 100 minutes
d) 140 minutes
e) 130 minutes

18. Question

At any point of time, let x be the smaller of the two angles made by the hour hand with the minute hand on an analogue clock (in degrees). During the time interval from 2:30 p.m. to 3:00 p.m. Determine, what is the minimum possible value of x in the given case ?

a)90
b)300
c)45
d)180
e)75

19. Question

Two tanks of similar volume are full of a mixture of oil and water. In the first, the ratio of oil and water is 5:8 and in the second, it is 7:19.

If both these tanks are poured in a larger tank, what would be the resultant ratio of oil and water?

a)17:53
b)17:35
c)151:304
d)17:52
e)1:3

20. Question

G's father's mother-in-law's great-grandchild's mother is Y. How is Y related to G?

a) Niece
b)Sister
c) Grandmother
d)Daughter
e)Aunt

21. Question

'Ranjan' is the father of 'Amit' but 'Amit' is not his son. 'Manjula' is the daughter of 'Amit'. 'Sangeeta' is the spouse of 'Ranjan'. 'Gurpal' is the brother of 'Amit'. 'Harry' is the son of 'Gurpal'. 'Mini' is the spouse of 'Gurpal'. 'Gurtej' is the father of 'Mini'. Who is the grandchild of 'Sangeeta'?

a) Gurpal
b)Mini
c)Harry
d)Amit
e)Ranjan

22. Question

Determine the total whole numbers that lie between 100 and 800 which contain the digit 2:

a)232
b) 240
c)224
d)230
e)214

23. Question

In how many ways 11 identical toys be placed in 3 distinct boxes such that no box is empty ?

a)44
b)33
c)42
d)72
e)45

24. Question

A small store has five units of a new phone model in stock: two white, two black, and one red. Three customers arrive at the shop to buy a unit each. Each one has a pre- determined choice of the colour and will not buy a unit of any other colour. All the three customers are equally likely to have chosen any of the three colours. What is the probability that the store will be able to satisfy all the three customers ?

a)7/9
b)4/5
c)1/3
d)8/9
e)2/3

25. Question

What will be the last two digits of the number 7^{45}?

a)45
b)35
c)07
d)49
e)21

26. Question

In an examination, Rama's score was one-twelfth of the sum of the scores of Mohan and Anjali. After a review, the score of each of them increased by 6. The revised scores of Anjali, Mohan, and Rama were in the ratio 11:10:3. Then Anjali's score exceeded Rama's score by:

a)29
b)32
c)26
d)27
e)31

27. Question

A card is drawn from a well shufled pack of cards. What is the probability that it is a red card or a face card?

a)9/13
b)37/52
c)31/52
d) 8/27
e)8/13

28. Question

Find how many times in the given series, a number is preceded by an even number but not followed by 0 or a multiple of 3?

7594618039673892013930439l2

a)5
b)7
c)4

d)3
e)6

29. Question

B	F	L	P	R	$$	H	D

Find the alphabet that should come in place of $$ from the following:

a)J
b)A
c)Z
d)N
e)M

30. Question

Rizz and Suzz invested INR 36,000 and INR 54,000 respectively to start a business together. At the end of every year, Rizz got a fixed amount as annual salary from out of the year's profit, for managing the business. After Rizz was paid his salary, the remaining profit was distributed to both of them, In the ratio of their investments. If at the end of the first year, the total amounts received by Rizz and Suzz was to be in the ratio of 3:2, then, determine as to what percent of profit did Rizz receive as salary?

a)66.66%
b)25%
c)33.33%
d)50%
e)20.33%

31. Question

Two normal dice are thrown on a game board, the face of the two dice show the numbers 3 and 2 respectively.

What shall be the total of faces that lie exactly opposite to the face of the dice ?

a)9
b)12
c)6
d)7
e)10

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32. Question

Given below is a detailing of a particular code language

Numbers	9	8	7	6	5	4	3	2	1	0
Lettter	Q	U	I	C	K	L	Y	R	O	D

How shall 3060589404 be written in that language:

a) YDCDKULQDL
b) YDCDKUQLDL
c) YDCKDQLUDL
d) YDCDKUDLQL
e) YDCDKQULDL

33. Question

The average age of a couple was 24 years. After their 1st and 2nd children (twins) were born, the average age of the family became 13.5 years. The average age of the family just after 3rd child was born was 13.2 years. The average age of the family after 4th child was born was 16 years.

The current average age of the family is 19 years. Determine, what is the current age of the twin children?

a) 12 Years
b) 10 Years
c) 14 Years
d) 13 Years
e) 15 Years

34. Question

In the country of Four, there are four cities, A, B, C and D.

B is to the East of A, C is to the South of B,
D is to the West of C, and
A is to the North of D.

The Government of Four is planning to connect these four cities by road such that it is possible for a person to go from a city to any of the other three cities. At the same time, the Government wants to ensure that the total road length is minimum.

The distances between A to B, B to C, C to D and D to A are all equal to 10 km.

What should be the total length of the road in kilometres ?

a) 30.30
b)28.30
c)29.50
d)25.50
e)26.30

35. Question

Read the below passage carefully and answer the questions that follow:

At a factory having its own premises, parking spaces are reserved for the top executives: CEO, president, vice president, secretary, and treasurer with the spaces lined up in that order. The parking lot guard can tell at a glance if the cars are parked correctly by looking at the color of the cars. The cars are yellow, green, purple, red, and blue, and the executives names are Alice, Bert, Cheryl, David, and Enid.

* The car in the first space is red.
* A blue car is parked between the red car and the green car.
* The car in the last space is purple.
* The secretary drives a yellow car.
* Alice's car is parked next to David's.
* Enid drives a green car.
* Bert's car is parked between Cheryl's and Enid's.
* David's car is parked in the last space.

Who amongst the following is CEO

a)Enid
b) Cheryl
c)Alice
d)Bert
e)David

36. Question

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* David's car is parked in the last space.

Who amongst the following is the Secretary ?

a) Bert
b)Alice
c)Enid
d)David
e)Cheryl

37. Question

Read the below passage carefully and answer the questions that follow:

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* Enid drives a green car.
* Bert's car is parked between Cheryl's and Enid's.
* David's car is parked in the last space.

What is color of vice presidents car ?

a)Blue
b) Red

c) Yellow
d)Green
e)Purple

38. Question

Read the following Scenario carefully and answer the questions that follow:

Churna is a peaceful village, surrounded by thickly forested high hills that isolate it from the rest of the world. Agriculture is the main occupation of the Churna villagers. Moreover, the forests provide seasonal fruits, tubers, medicinal herbs, and other forest produce in abundance. For all material needs not produced locally, the Churna villagers depend on Tendua, a faraway town.

Once a month, the Churna women would arduously trek with the surplus produce to Tendua. In the Tendua market, they convey the virtues of their produce through a beautiful song and dance routine. Reputed for their hard-bargaining skills, they always manage to extract a premium barter from the traders, more than fulfilling all their other material needs.

A few months after granting exclusive access to Damu, the village council of Churna meets to discuss the progress. After much debate and heated discussions, the Village Council decides to terminate the contract with Damu. The Council feels that if the contract continues, then:

1. Over time, Churna's produce will lose its association with Churna.
2. Churna's people will be ignorant of new developments in the market.
3. Churna's dance and song will lose their identity.
4. Churna's people will lose social interaction with the outer world.
5. Churna's people will lose their hard bargaining skills.

Which of the above concerns, when arranged in descending order of significance, will correctly support the decision to terminate the contractual relationship with Damu:

a) 1,2,5,4,3
b) 1,2,5,3,4
c) 1,2,3,4,5
d) 2,1,5,3,4
e) 5,1,2,4,3

39. Question

Read the following Scenario carefully and answer the questions that follow:

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Once a month, the Churna women would arduously trek with the surplus produce to Tendua. In the Tendua market, they convey the virtues of their produce through a beautiful song and dance routine. Reputed for their hard-bargaining skills, they always manage to extract a premium barter from the traders, more than fulfilling all their other material needs.

Damu, an ambitious trader of Tendua, wants to have exclusive access to all the surplus produce from Churna.

Which of the following offers to the Churna village will help Damu achieve her objective most successfully?

a) Damu should offer to set up a shop in Churna, which will barter all the material requirements of the village
b) Damu should offer to provide colourful sarees that the women of Churna fancy.
c) Damu should offer to educate the Churna villagers about cash transactions.
d) Damu should offer novel products, unseen by the Churna villagers.
e) Damu should offer to transport the villagers'

monthly material purchases from Tendua to Churna for free.

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40. Question

Read the following scenario and answer the Questions that follow :

A company awards incentives to its employees for successful project performances. It rates successful project performance in categories A*, A, B, and C. Employees, in solo projects rated A*, A, B, and C, are awarded incentives 6 lakh, 5 lakh, 3 lakh, and 1 lakh respectively. When a project has multiple team members, the following scheme is used to award the incentives:

No of team members	Team lead gets	Other members get
1	100%	
2	90%	70%
3	80%	50%each
4	70%	40%each
More than 4	Every member gets (200/n)%, where n = number of team members.	Every member gets (200/n)%, where n = number of team members.

For example, for a project rated A, with three members, the team lead gets *4 lakh, and the other team members get 2.5 lakh each. A project always has a single team lead.

Six employees: Altaf, Bose, Chakrabarthi, Dipa, Ernie, and Fatima receive a total of 45 lakh in incentives by participating in a total of eight different projects that does not involve any other person. Not all six employees are involved in all eight projects.

The following are additionally known about these eight projects:

1. One project involves all six employees. Four projects involve three each, and the rest, two each

2. Exactly three projects are rated C, for which a total of 4.8 lakh is paid. 3. Only one project is rated A*.

What is known correctly about the team composition for the projects rated A*:

a) None

b) It comprises of either a two-member team or a three-member team.

c) It comprises of either a two-member team

d) It comprises of either a

e) It comprises of either a three-member team or a six-member team.

41. Question

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The following are additionally known about these eight projects:

1. One project involves all six employees. Four projects involve three each, and the rest, two each

2. Exactly three projects are rated C, for which a total of 4.8 lakh is paid. 3. Only one project is rated A*.

Total amount of money paid for projects rated A (in lakhs of Rupees) is:

a)19
b)16
c)17
d)18
e)15

42. Question

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The following are additionally known about these eight projects:

1. One project involves all six employees. Four projects involve three each, and the rest, two each

2. Exactly three projects are rated C, for which a total of 4.8 lakh is paid. 3. Only one project is rated A*.

What is correctly known about the team compositions for the projects rated C?

a) All are three member teams
b) the three teams have two ,three and six member repectively
c) all are two member teams
d) one is the six member team ,rest are two member team
e) all are either two member or three member teams

43. Question

Read the information given below carefully and answer the questions that follow:

A quick survey at the end of a purchase at buyagain.com asks the following three questions to each shopper:

1. Are you shopping at the website for the first time? (YES or NO);

2. Specify your gender. (MALE or FEMALE);

3. How satisfied are you? (HAPPY, NEUTRAL or UNHAPPY)

240 shoppers answer the survey, among whom 65 are first time shoppers.

Furthermore:

1. The ratio of the numbers of male to female shoppers is 1:2 while the ratio of the numbers of unhappy, happy and neutral shoppers is 3: 4:5

ii. The ratio of the numbers of happy first-time male shoppers, happy returning male shoppers, unhappy female shoppers, neutral male shoppers, neutral female shoppers and happy female shoppers is 1:1:4:4:6:6

iii. Among the first-time shoppers, the ratio of the numbers of happy male, neutral male, unhappy female and the remaining female shoppers is 1:1:1 : 2, while the number of happy first-time female shoppers is equal to the number of unhappy first-time male shoppers.

Determine the number of happy male shoppers:

a)19
b)18
c)10
d)20
e)22

44. Question

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ii. The ratio of the numbers of happy first-time male shoppers, happy returning male shoppers, unhappy female shoppers, neutral male shoppers, neutral female shoppers and happy female shoppers is 1:1:4:4:6:6

iii. Among the first-time shoppers, the ratio of the numbers of happy male, neutral male, unhappy female and the remaining female shoppers is 1:1:1 : 2, while the number of happy first-time female shoppers is equal to the number of unhappy first-time male shoppers.

Which among the following cannot be determined uniquely:

a) All the numerica ldata can be determined uniquely
b) The number of first-time happy male shoppers.
c) The number of returning male shoppers
d) The number of first-time neutral male shoppers
e) The number of returning unhappy female shoppers

45. Question

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ii. The ratio of the numbers of happy first-time male shoppers, happy returning male shoppers, unhappy female shoppers, neutral male shoppers, neutral female shoppers and happy female shoppers is 1:1:4:4:6:6

iii. Among the first-time shoppers, the ratio of the numbers of happy male, neutral male, unhappy female and the remaining female shoppers is 1:1:1 : 2, while the number of happy first-time female shoppers is equal to the number of unhappy first-time male shoppers.

Which amongst the following is the lowest in number ?

a) Number of happy returning male shoppers

b) Number of neutral first timemale shoppers

c) Number of unhappy first time female shoppers

d) Number of unhappy first time male shoppers

e) Number of neutral first time female shoppers

46. Question

Read the information provided carefully and answer the questions that follow.

In a certain board examination, students were to appear for examination in five subjects: English, Hindi, Mathematics, Science and Social Science. Due to a certain emergency situation, a few of the examinations could not be conducted for some students. Hence, some students missed one examination and some others missed two examinations. Nobody missed more than two examinations.

The board adopted the following policy for awarding marks to students. If a student appeared in all five examinations, then the marks awarded in each of the examinations were on the basis of the scores obtained by them in those examinations.

If a student missed only one examination, then the marks awarded in that examination was the average of the best three among the four scores in the examinations they appeared for.

If a student missed two examinations, then the marks awarded in each of these examinations was the average of the best two among the three scores in the examinations they appeared for

The marks obtained by six students in the examination are given in the table below. Each of them missed either one or two examinations.

	English	Hindi	Maths	General sciences	SS
ALVA	80	75	70	75	60
BAL	90	80	55	85	85
CARDY	75	80	90	100	90
DEEPALI	70	90	100	90	80
ELGAR	80	85	95	60	55
FOXXY	83	72	78	88	83

The following facts are also known:

1. Four of these students appeared in each of the English, Hindi, Science, and Social Science examinations.

II. The student who missed the Mathematics examination did not miss any other examination.

III. One of the students who missed the Hindi examination did not miss any other examination. The other student who missed the Hindi examination also missed the Science examination.

Which of the following students did not appear for the English examination?

a) ALVA AND BAL

b) FOXXY AND ELGAR

c) DEEPALI AND CARDY

d) BAL AND FOXXY

e) CAN NOT BE DETERMINED

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The board adopted the following policy for awarding marks to students. If a student appeared in all five examinations, then the marks awarded in each of the examinations were on the basis of the scores obtained by them in those examinations.

If a student missed only one examination, then the marks awarded in that examination was the average of the best three among the four scores in the examinations they appeared for.

If a student missed two examinations, then the marks awarded in each of these examinations was the average of the best two among the three scores in the examinations they appeared for

The marks obtained by six students in the examination are given in the table below. Each of them missed either one or two examinations.

	English	Hindi	Maths	General sciences	SS
ALVA	80	75	70	75	60
BAL	90	80	55	85	85
CARDY	75	80	90	100	90
DEEPALI	70	90	100	90	80
ELGAR	80	85	95	60	55
FOXXY	83	72	78	88	83

The following facts are also known:

1. Four of these students appeared in each of the English, Hindi, Science, and Social Science examinations.

II. The student who missed the Mathematics examination did not miss any other examination.

III. One of the students who missed the Hindi examination did not miss any other examination. The other student who missed the Hindi examination also missed the Science examination.

Who among the following did not appear for the Maths examination?

a)FOXXY
b)ELGAR
c)DEEPALI
d)BAL
e)CARDY

48. Question

Read the information provided carefully and answer the questions that follow.

In a certain board examination, students were to appear for examination in five subjects: English, Hindi, Mathematics, Science and Social Science. Due to a certain emergency situation, a few of the examinations could not be conducted for some students. Hence, some students missed one examination and some others missed two examinations. Nobody missed more than two examinations.

The board adopted the following policy for awarding marks to students. If a student appeared in all five examinations, then the marks awarded in each of the examinations were on the basis of the scores obtained by them in those examinations.

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The following facts are also known:

1. Four of these students appeared in each of the English, Hindi, Science, and Social Science examinations.

II. The student who missed the Mathematics examination did not miss any other examination.

III. One of the students who missed the Hindi examination did not miss any other examination. The other student who missed the Hindi examination also missed the Science examination.

Which of the following students might have missed the General Sciences examination?

a)FOXXY
b)CARDY
c)DEEPALI
d) EITHER CARDY OR FOXXY
e) CANNOT BE DETERMINED

49. Question

Read the information provided carefully and answer the questions that follow.

In a certain board examination, students were to appear for examination in five subjects: English, Hindi, Mathematics, Science and Social Science.

Due to a certain emergency situation, a few of the examinations could not be conducted for some students. Hence, some students missed one examination and some others missed two examinations. Nobody missed more than two examinations.

The board adopted the following policy for awarding marks to students. If a student appeared in all five examinations, then the marks awarded in each of the examinations were on the basis of the scores obtained by them in those examinations.

If a student missed only one examination, then the marks awarded in that examination was the average of the best three among the four scores in the examinations they appeared for.

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The marks obtained by six students in the examination are given in the table below. Each of them missed either one or two examinations.

	English	Hindi	Maths	General sciences	SS
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CARDY	75	80	90	100	90
DEEPALI	70	90	100	90	80
ELGAR	80	85	95	60	55
FOXXY	83	72	78	88	83

The following facts are also known:

1. Four of these students appeared in each of the English, Hindi, Science, and Social Science examinations.

II. The student who missed the Mathematics examination did not miss any other examination.

III. One of the students who missed the Hindi examination did not miss any other examination. The other student who missed the Hindi examination also missed the Science examination.

Which amongst the following students did not appear for Hindi examination?

a) BAL AND FOXXY
b) ALVA AND BAL
c) ALVA AND DEEPALI
d) DEEPALI AND BAL
e) CARDY AND DEEPALI

50. Question

Read the contents of the passage carefully and answer the questions that follow:

There are only four neighbourhoods in a city - Levmisto, Tyhrmisto, Pesmisto and Kitmisto. During the onset of a pandemic, the number of new cases of a disease in each of these neighbourhoods was recorded over a period of five days. On each day, the number of new cases recorded in any of the neighbourhoods was either 0, 1, 2 or 3.

The following facts are also known:

1. There was at least one new case in every neighbourhood on Day 1. 2. On each of the five days, there were more new cases in Kitmisto than in Pesmisto.

3. The number of new cases in the city in a day kept increasing during the five-day period. The number of new cases on Day 3 was exactly one more than that on Day 2

4. The maximum number of new cases in a day in Pesmisto was 2, and this happened only once during the five-day period.

5. Kitmisto is the only place to have 3 new cases on Day 2.

6. The total numbers of new cases in Levmisto, Tyhrmisto, Pesmisto and Kitmisto over the five-day period were 12, 12, 5 and 14 respectively.
On how many days did Levmisto and Tyhrmisto have the same number of new cases ?

a) FIVE
b)TWO
c)ONE
d)SIX
e)NIL

51. Question

Read the contents of the passage carefully and answer the questions that follow:

There are only four neighbourhoods in a city - Levmisto, Tyhrmisto, Pesmisto and Kitmisto. During the onset of a pandemic, the number of new cases of a disease in each of these neighbourhoods was recorded over a period of five days. On each day, the number of new cases recorded in any of the neighbourhoods was either 0, 1, 2 or 3.

The following facts are also known:

1. There was at least one new case in every neighbourhood on Day 1. 2. On each of the five days, there were more new cases in Kitmisto than in Pesmisto.

3. The number of new cases in the city in a day kept increasing during the five-day period. The number of new cases on Day 3 was exactly one more than that on Day 2

4. The maximum number of new cases in a day in Pesmisto was 2, and this happened only once during the five-day period.

5. Kitmisto is the only place to have 3 new cases on Day 2.

6. The total numbers of new cases in Levmisto, Tyhrmisto, Pesmisto and Kitmisto over the five-day period were 12, 12, 5 and 14 respectively. On which day(s) did Pesmisto have no new case at all ?

a) on day 1 and day 2
b) only on day 2
c) only on day 1
d) on day 1 and day 4
e) only on day 3

52. Question

Read the contents of the passage carefully and answer the questions that follow:

There are only four neighbourhoods in a city - Levmisto, Tyhrmisto, Pesmisto and Kitmisto. During the onset of a pandemic, the number of new cases of a disease in each of these neighbourhoods was recorded over a period of five days. On each day, the number of new cases recorded in any of the neighbourhoods was either 0, 1, 2 or 3.

The following facts are also known:

1. There was at least one new case in every neighbourhood on Day 1. 2. On each of the five days, there were more new cases in Kitmisto than in Pesmisto.

3. The number of new cases in the city in a day kept increasing during the five-day period. The number of new cases on Day 3 was exactly one more than that on Day 2

4. The maximum number of new cases in a day in Pesmisto was 2, and this happened only once during the five-day period.

5. Kitmisto is the only place to have 3 new cases on Day 2.

6. The total numbers of new cases in Levmisto, Tyhrmisto, Pesmisto and Kitmisto over the five-day period were 12, 12, 5 and 14 respectively. Which of the following can be correctly concluded about the number of new cases in Levmisto on Day 3 ?

a) There have been exactly 1 case in Levmisto on Day 3
b) There have been exactly 3 cases in Levmisto on Day 3
c) There have been exactly 7 cases in Levmisto on Day 3
d) There have been exactly 4 cases in Levmisto on Day 3
e) there have been either 4 or 7 casr in levimisto on day 3

53. Question

Read the contents of the passage carefully and answer the questions that follow:

There are only four neighbourhoods in a city - Levmisto, Tyhrmisto, Pesmisto and Kitmisto. During the onset of a pandemic, the number of new cases of a disease in each of these neighbourhoods was recorded over a period of five days. On each day, the number of new cases recorded in any of the neighbourhoods was either 0, 1, 2 or 3.

The following facts are also known:

1. There was at least one new case in every neighbourhood on Day 1. 2. On each of the five days, there were more new cases in Kitmisto than in Pesmisto.

3. The number of new cases in the city in a day kept increasing during the five-day period. The number of new cases on Day 3 was exactly one more than that on Day 2

4. The maximum number of new cases in a day in Pesmisto was 2, and this happened only once during the five-day period.
5. Kitmisto is the only place to have 3 new cases on Day 2.
6. The total numbers of new cases in Levmisto, Tyhrmisto, Pesmisto and Kitmisto over the five-day period were 12, 12, 5 and 14 respectively.
What can be concluded most correctly about the total number of new cases in the city on Day 2?

a) There have been exactly 6 cases on Day 2
b) There have been exactly 8 cases on Day 2
c) There have been exactly 7 cases on Day 2
d) There have been exactly 6or 7 cases on Day 2
e) There have been exactly 13 cases on Day 2

54. Question

Read the information given carefully and answer the question that follows:

Arnav has to go to the country of Ten to work on a series of tasks for which he must get a permit from the Government of Ten. Once the permit is issued, Arnav can enter the country within ten days of the date of issuance of the permit. Once Arnav enters Ten, he can stay for a maximum of ten days. Each of the tasks has a priority, and takes a certain number of days to complete. Arnav cannot work on more than one task at a time.

The following table gives the details of the priority and the number of days required for each task.

TASK	PIROTIY	NO OF DAY NEEDED
T1	1	3
T2	2	5
T3	3	3
T4	4	4
T5	5	2

Arnav's first priority is to complete as many tasks as possible, and then try to complete the higher priority tasks. His last priority is to go back as soon as possible.

Which of the following tasks should Arnav complete earliest

a) T3,T4 AND T5
b) T1 AND T3
c) T1 AND T2
d) T1,T2 AND T5
e) T2 ,T3 AND T5

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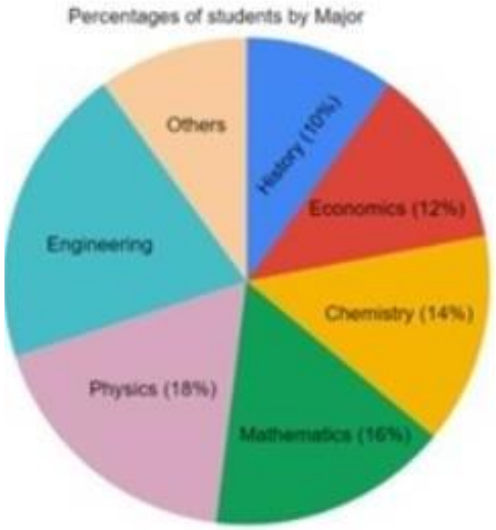
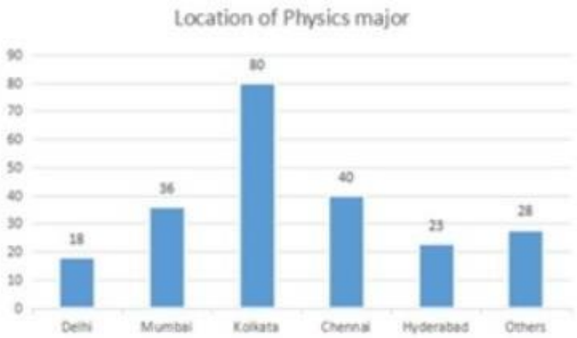
55. Question

The break-up of the students in an University by subject major is given in the Pie-chart. The Bar Chart shows the number of students who major in Physics by geographic location.





If the proportion of Physics majors who are from Delhi is the same as the proportion of Engineering majors who are from Delhi, then determine, how many Engineering majors are there from Delhi ?

a)20
b) 18
c)24
d)22
e)28

56. Question

Determine the number of students who major in Chemistry

a)190
b)180
c)200
d)170
e)175

57. Question

12 percent of all students are from Chennai. What is the largest possible percentage of Economics students (rounded off to the nearest integer) that can be from Chennai ?

a)12
b)68
c)70
d)73
e)77

58. Question

In a square layout of size 5m x 5m, 25 equal sized square platforms of different heights are built. The heights (in metres) of individual platforms are:

6	1	2	4	3
9	5	3	2	8
7	8	4	6	5
3	9	5	1	2
1	7	6	3	9

Individuals (all of same height) are seated on these platforms. We say an individual A can reach an individual B if all the three following conditions are met:

1.) A and B are In the same row or column
ii.) A is at a lower height than B
iii.) If there is/are any individual(s) between A and B, such individual(s) must be at a height lower than that of A.

Thus in the table given above, consider the Individual seated at height 8 on 3rd row and 2nd column. He can be reached by four individuals. He can be reached by the individual on his left at height 7, by the two individuals on his right at heights of 4 and 6 and by the individual above at height 5. Rows in the layout are numbered from top to bottom and columns are numbered from left to right.

How many individuals in this layout can be reached by just one individual?

a)6
b)4
c)3
d)7
e)8

59. Question

In a square layout of size 5m x 5m, 25 equal sized square platforms of different heights are built. The heights (in metres) of individual platforms are:

6	1	2	4	3
9	5	3	2	8
7	8	4	6	5
3	9	5	1	2
1	7	6	3	9

Individuals (all of same height) are seated on these platforms. We say an individual A can reach an individual B if all the three following conditions are met:

1.) A and B are In the same row or column
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Thus in the table given above, consider the Individual seated at height 8 on 3rd row and 2nd column. He can be reached by four individuals. He can be reached by the individual on his left at height 7, by the two individuals on his right at heights of 4 and 6 and by the individual above at height 5. Rows in the layout are numbered from top to bottom and columns are numbered from left to right.

Which of the following is true for any individual at a platform of height 1m in this layout ?

a) They can be reached by all the individuals in their own row and column.
b) They can be reached by a maximum of two individuals
c) They can be reached by at least one individual.
d) They cannot be reached by anyone.
e) They can be reached by at least four individuals

60. Question

Read the information given below carefully and answer the questions that follow:
An old woman had the following assets:
(a) Rs. 70 lakh in Bank deposits
(b) 1 house worth Rs. 50 lakh
(c) 3 flats, each worth Rs. 30 lakh
(d) Certain number of gold coins, each worth Rs. 1 lakh
She wanted to distribute her assets among her three children, Neeta, Seeta and Geeta.
The house, any of the flats or any of the coins were not to be split. That is, the house went entirely to one child; a flat went to one child and similarly, gold coins went to one child.
Among the three, Neeta received the least amount in bank deposits, while Geeta received the highest.
The value of the assets was distributed equally among the children, as were the gold coins.
The value of the assets distributed among Neeta, Seeta and Geeta was in the ratio of 1:2:3, while the gold coins were distributed among them in the ratio of 2:3:4. One child got all three flats and she did not get the house. One child, other than Geeta, got Rs. 30 lakh in bank deposits.
How many gold coins in all did the old woman have?

a)99
b)81
c)72
d)102
e)90

61. Question

Read the information given below carefully and answer the questions that follow:
An old woman had the following assets:
(a) Rs. 70 lakh in Bank deposits
(b) 1 house worth Rs. 50 lakh
(c) 3 flats, each worth Rs. 30 lakh
(d) Certain number of gold coins, each worth Rs. 1 lakh
She wanted to distribute her assets among her three children, Neeta, Seeta and Geeta.
The house, any of the flats or any of the coins were not to be split. That is, the house went entirely to one child; a flat went to one child and similarly, gold coins went to one child.
Among the three, Neeta received the least amount in bank deposits, while Geeta received the highest.
The value of the assets was distributed equally among the children, as were the gold coins.
How much did Seeta receive in bank deposits ?

a) RS 48 L
b) RS 40 L
c) RS 30 L
d) RS 20 L
e) RS 10 L

62. Question

Read the information given carefully and answer the question that follows:

Eight friends: Ajit, Byomkesh, Gargi, Jayanta, Kikira, Manik, Prodosh and Tapesh are going to Delhi from Kolkata by a flight operated by CLP Air. In the flight, seating is arranged in 30 rows, numbered 1 to 30, each consisting of 6 seats, marked by letters A to F from left to right, respectively.

Seats A to C are to the left of the aisle (the passage running from the front of the aircraft to the back), and seats D to F are to the right of the aisle. Seats A and F are by the windows and referred to as Window seats, C and D are by the aisle and are referred to as Aisle seats while B and E are referred to as Middle seats.

Seats marked by consecutive letters are called consecutive seats (or seats next to each other). A seat number is a combination of the row number, followed by the letter indicating the position in the row; e.g., 1A is the left window seat in the first row, while 12E is the right middle seat in the 12th row.

CLP Air charges Rs. 1000 extra for any seats in Rows 1, 12 and 13 as those have extra legroom. For Rows 2-10, it charges Rs. 300 extra for Window seats and Rs. 500 extra for aisle seats. For Rows 11 and 14 to 20, it charges Rs. 200 extra for Window seats and Rs. 400 extra for aisle seats. All other seats are available at no extra charge.

Additionally, the following is known:

1. The eight friends were seated in six different rows.
2. They occupied 3 Window seats, 4 Aisle seats and 1 Middle seat.
3. Seven of them had to pay extra amounts, totaling to Rs. 4600, for their choices of seat. One of them did not pay any additional amount for his/her choice of seat.
4. Jayanta, Ajit and Byomkesh were sitting in seats marked by the same letter, in consecutive rows in increasing order of row numbers; but all of them paid different amounts for their choices of seat. One of these amounts may be zero.
5. Gargi was sitting next to Kikira, and Manik was sitting next to Jayanta.
6. Prodosh and Tapesh were sitting in seats marked by the same letter, in consecutive rows in increasing order of row numbers; but they paid different amounts for their choices of seat. One of these amounts may be zero.

How much extra did Jayanta pay for his choice of seat ?

a) rs 500
b) rs 300
c) rs 400
d) rs 800
e) rs 1000

63. Question

Read the information given carefully and answer the questionn that follows:

Eight friends: Ajit, Byomkesh, Gargi, Jayanta, Kikira, Manik, Prodosh and Tapesh are going to Delhi from Kolkata by a flight operated by CLP Air. In the flight, seating is arranged in 30 rows, numbered 1 to 30, each consisting of 6 seats, marked by letters A to F from left to right, respectively.

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5. Gargi was sitting next to Kikira, and Manik was sitting next to Jayanta.
6. Prodosh and Tapesh were sitting in seats marked by the same letter, in consecutive rows in increasing order of row numbers; but they paid different amounts for their choices of seat. One of these amounts may be zero.

Who among the following did not pay any extra amount for his/her choice of seat ?

a) ajit
b) tapesh
c)manik
d)gargi
e)kikra

64. Question

Read the information given carefully and answer the questionn that follows:

Eight friends: Ajit, Byomkesh, Gargi, Jayanta, Kikira, Manik, Prodosh and Tapesh are going to Delhi from Kolkata by a flight operated by CLP Air. In the flight, seating is arranged in 30 rows, numbered 1 to 30, each consisting of 6 seats, marked by letters A to F from left to right, respectively.

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4. Jayanta, Ajit and Byomkesh were sitting in seats marked by the same letter, in consecutive rows in increasing order of row numbers; but all of them paid different amounts for their choices of seat. One of these amounts may be zero.
5. Gargi was sitting next to Kikira, and Manik was sitting next to Jayanta.
6. Prodosh and Tapesh were sitting in seats marked by the same letter, in consecutive rows in increasing order of row numbers; but they paid different amounts for their choices of seat. One of these amounts may be zero.

Manik is seated in which of the following row?

a)13
b) 10
c) 1
d)12
e)11

65. Question

Read the information given carefully and answer the question that follows:

Five Companies A, B, C, D and E saw growth rates ranging from 10% to 50% in the year 2015. Company A with the least revenues of Rs. 600 crores in 2015 saw the maximum growth rate of 50% and the Company D with the highest revenue saw the least growth rate of 10%. Company B's revenues in 2016 was equal to that of Company D in 2015, while Company C's 2016 revenue was equal to that of Company B's in 2015, Company A's 2016 revenue was equal to that of Company E in 2015.

Ananyaa, an accountant observes that one of the companies has twice the growth rate of another. Mushtaq, her colleague corrects her and says that this is the case in two different instances.

Company E has a revenue equal to the average seen in Company A and D. and growth rate equal to the average growth rate of A and D.

Ravinder, known for his cryptic-speak mentioned that if company C had grown at the rate seen by company A in 2015 would have reached the revenues seen by Company B in 2016.

In absolute terms, which Company added the maximum revenue in the year 2016?

a)A b)D c)C d)E e)B

66. Question

Read the information given carefully and answer the question that follows:

Five Companies A, B, C, D and E saw growth rates ranging from 10% to 50% in the year 2015. Company A with the least revenues of Rs. 600 crores in 2015 saw the maximum growth rate of 50% and the Company D with the highest revenue saw the least growth rate of 10%. Company B's revenues in 2016 was equal to that of Company D in 2015, while Company C's 2016 revenue was equal to that of Company B's in 2015, Company A's 2016 revenue was equal to that of Company E in 2015.

Ananyaa, an accountant observes that one of the companies has twice the growth rate of another. Mushtaq, her colleague corrects her and says that this is the case in two different instances.

Company E has a revenue equal to the average seen in Company A and D. and growth rate equal to the average growth rate of A and D.

Ravinder, known for his cryptic-speak mentioned that if company C had grown at the rate seen by company A in 2015 would have reached the revenues seen by Company B in 2016.

Which Company had the third highest growth rate ?

a)D
b)E
c)A
d)C
e)B

67. Question

Read the information given carefully and answer the question that follows:

Five Companies A, B, C, D and E saw growth rates ranging from 10% to 50% in the year 2015. Company A with the least revenues of Rs. 600 crores in 2015 saw the maximum growth rate of 50% and the Company D with the highest revenue saw the least growth rate of 10%. Company B's revenues in 2016 was equal to that of Company D in 2015, while Company C's 2016 revenue was equal to that of Company B's in 2015, Company A's 2016 revenue was equal to that of Company E in 2015.

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Company E has a revenue equal to the average seen in Company A and D. and growth rate equal to the average growth rate of A and D.

Ravinder, known for his cryptic-speak mentioned that if company C had grown at the rate seen by company A in 2015 would have reached the revenues seen by Company B in 2016.

What is the overall average growth rate seen by all 5 companies put together?

a) 23.5%
b)28.5%
c)24.2%
d)27%
e) 18.5%

Read the information provided below and answer the questions that follow :

Simple Happiness index (SHI) of a country is computed on the basis of three parameters: Social Support (S),

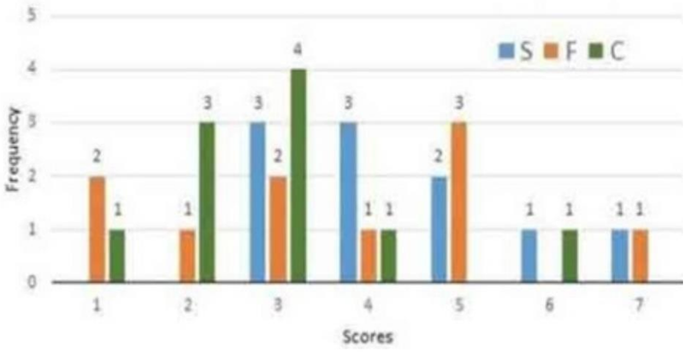
Freedom to Life choices (F) and

Corruption Perception (C).

Each of these three parameters is measured on a scale of 0 to 8 (integers only). A country is then categorized based on the total score obtained by summing the scores of all the three parameters, as shown in the following table:

Total score	0-4	5-8	9-13	14-19	20-24
Category	Very unhappy	unhappy	neutral	happy	Very happy

Following diagram depicts the frequency distribution of the scores in S, F and C of 10 countries - Amda, Benga, Calla, Delma, Eppa, Varsa, Wanna, Xanda, Yanga and Zooma:



Further, the following is known:

1. Amda and Calla jointly have the lowest total score, 7, with identical scores in all the three parameters.
2. Zooma has a total score of 17.
3. All the 3 countries, which categorised as happy, have the highest score in exactly one parameter.

Benga and Delma, two countries categorized as happy, are tied with the same total score.

68. What is the maximum score they can achieve?

a)13
b)17
c)15
d)17
e)16

69. Question

What is zooma score in S ?

a)3
b)6
c)7
d)8
e)5

70. Question

Read the information given below carefully and answer the questions that follow:

The rainfall data of Five different cities of a particular year is provided below. The five cities are: Last Stand, Mile City, New Town, Olliopolis, and Polberg. The cities are located in five different geographical areas of a country named Bulbula. The different geographical areas of

Bulbula are the mountains, the forest, the coast, the desert, and valley. The rainfall amounts were: 12 inches, 27 inches, 32 inches, 44 inches, and 65 inches.

* The city in the desert got the least rain; the city in the forest got the most rain.
* New Town is in the mountains.
* Last Stand got more rain than Olliopolis.
* Mile City got more rain than Polberg, but less rain than New Town.
* Olliopolis got 44 inches of rain.
* The city in the mountains got 32 inches of rain; the city on the coast got 27 inches of rain.

Which city is located in the desert ?

a)last stand
b)poiberg
c)new town
d)mile city
e)olliopollis

71. Question

Read the information given below carefully and answer the questions that follow:

The rainfall data of Five different cities of a particular year is provided below. The five cities are: Last Stand, Mile City, New Town, Olliopolis, and Polberg. The cities are located in five different geographical areas of a country named Bulbula. The different geographical areas of Bulbula are the mountains, the forest, the coast, the desert, and valley. The rainfall amounts were: 12 inches, 27 inches, 32 inches, 44 inches, and 65 inches.

* The city in the desert got the least rain; the city in the forest got the most rain.
* New Town is in the mountains.
* Last Stand got more rain than Olliopolis.
* Mile City got more rain than Polberg, but less rain than New Town.
* Olliopolis got 44 inches of rain.
* The city in the mountains got 32 inches of rain; the city on the coast got 27 inches of rain.

How much rain did the Mile City receive in the given year?

a)44
b)65
c)12
d)27
e)32

72. Question

Read the information given below carefully and answer the questions that follow:

The rainfall data of Five different cities of a particular year is provided below. The five cities are: Last Stand, Mile City, New Town, Olliopolis, and Polberg. The cities are located in five different geographical areas of a country named Bulbula. The different geographical areas of Bulbula are the mountains, the forest, the coast, the desert, and valley. The rainfall amounts were: 12 inches, 27 inches, 32 inches, 44 inches, and 65 inches.

* The city in the desert got the least rain; the city in the forest got the most rain.
* New Town is in the mountains.
* Last Stand got more rain than Olliopolis.
* Mile City got more rain than Polberg, but less rain than New Town.
* Olliopolis got 44 inches of rain.
* The city in the mountains got 32 inches of rain; the city on the coast got 27 inches of rain.

Which amongst the following city is situated in the valley ??

a)polberg
b)new town
c)mile city
d)last stand
e)ollopolis

73. Question

Read the information given below carefully and answer the questions that follow:

The rainfall data of Five different cities of a particular year is provided below. The five cities are: Last Stand, Mile City, New Town, Olliopolis, and Polberg. The cities are located in five different geographical areas of a country named Bulbula. The different geographical areas of Bulbula are the mountains, the forest, the coast, the desert, and valley. The rainfall amounts were: 12 inches, 27 inches, 32 inches, 44 inches, and 65 inches.

* The city in the desert got the least rain; the city in the forest got the most rain.

* New Town is in the mountains.

* Last Stand got more rain than Olliopolis.

* Mile City got more rain than Polberg, but less rain than New Town.

* Olliopolis got 44 inches of rain.

* The city in the mountains got 32 inches of rain; the city on the coast got 27 inches of rain.

Which city of Bulbula got the most rain in the given year?

a) new town
b)polberg
c)olliopolis
d) mile city
e) last stand

74. Question

Read the passage given below carefully and answer the questions that follow:

Five roommates Randy, Sally, Terry, Uma, and Vernon each do one housekeeping task amongst mopping, sweeping, laundry, vacuuming, or dusting one day a week, Monday through Friday.

* Vernon does not vacuum and does not do his task on Tuesday.

* Sally does the dusting, and does not do it on Monday or Friday.

* The mopping is done on Thursday.

Terry does his task, which is not vacuuming, on Wednesday

* The laundry is done on Friday, and not by Uma.

Randy does his task on Monday.

What day is vacuuming done in the room?

a)Thursday
b) Monday
c) Wednesday
d)Tuesday
e)Friday

75. Question

Read the passage given below carefully and answer the questions that follow:

Five roommates Randy, Sally, Terry, Uma, and Vernon each do one housekeeping task amongst mopping, sweeping, laundry, vacuuming, or dusting one day a week, Monday through Friday.

* Vernon does not vacuum and does not do his task on Tuesday.

* Sally does the dusting, and does not do it on Monday or Friday.

* The mopping is done on Thursday.

Terry does his task, which is not vacuuming, on Wednesday

* The laundry is done on Friday, and not by Uma.

Randy does his task on Monday.

What task does Terry do on Wednesday?

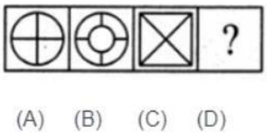
a)dusting
b) mopping
c)sweeping
d)vaccumming
e)laundry

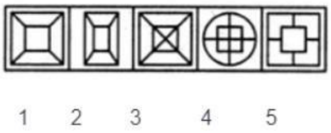
Abstract

76. Question

Select a suitable figure from the Answer Figures that would replace the question mark (?).

Problem figures
answer figures

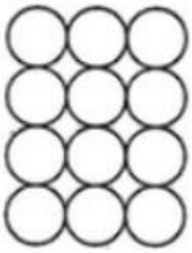




a)3
b)2
c)1
d)4
e)5

77. Question

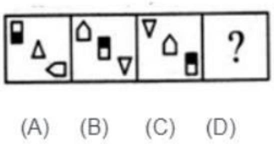
If the centres of all the circles in the given figure are joined by horizontal and vertical lines, then find the number of squares that can be formed?

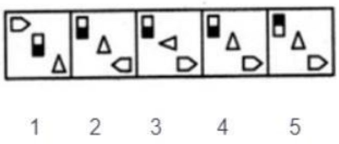


a)7
b)5
c)3
d)8
e)4

78. Question

Select a suitable figure from the Answer Figures that would replace the question mark (?).
Problem Figures
Answer Figures



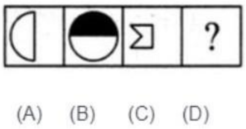


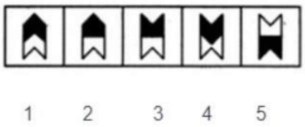
a)3
b)2
c)1
d)4
e)5

79. Question

Select a suitable figure from the Answer Figures that would replace the question mark (?).

Problem Figures
Answer Figures

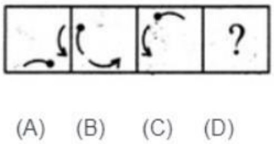


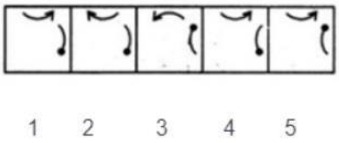


a)3
b)2
c)1
d)4
e)5

80. Question

Select a suitable figure from the Answer Figures that would replace the question mark (?).
Problem Figures
Answer Figures

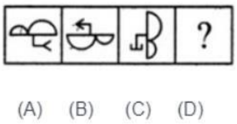


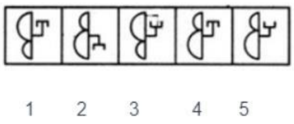


a)3
b)2
c)1
d)4
e)5

81. Question

Select a suitable figure from the Answer Figures that would replace the question mark (?).
Problem Figures
Answer Figures

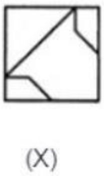


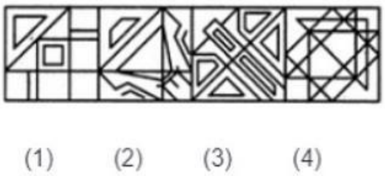


a)3
b)2
c)1
d)4
e)5

82. Question

Determine as to which figure from amongst the figures (1) (2) (3) (4) contains the contents of Figure (X) on the left. If you feel that none of the figures contains the contents of the figure (X), mark your answer as (5):

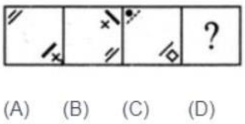


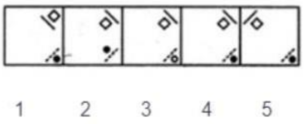


a)3
b)2
c)1
d)4
e)5

83. Question

Select a suitable figure from the Answer Figures that would replace the question mark (?):
Problem Figures
Answer Figures

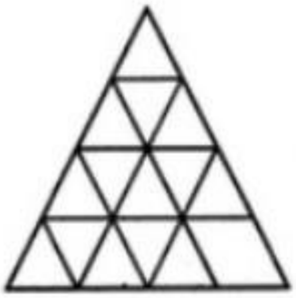




a)3
b)2
c)1
d)4
e)5

84. Question

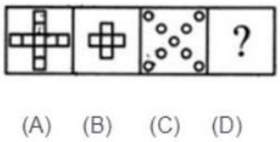
Find the minimum number of straight lines required to make the given figure:

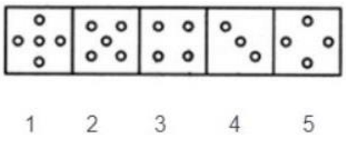


a)16
b)11
c)13
d)14
e)15

85. Question

Select a suitable figure from the Answer Figures that would replace the question mark (?):
Problem Figures:
Answer Figures:

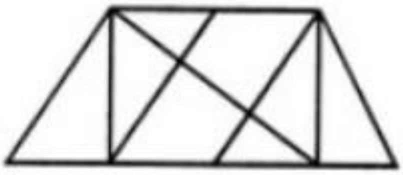




a)3
b)2
c)1
d)4
e)5

86. Question

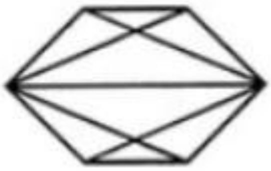
Find the number of traingles in the given figure:



a) 14
b)13
c)8
d)12
e)15

87. Question

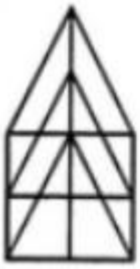
Find the number of quadrilaterals in the given figure:



a) 9
b) 7
c)10
d)11
e)8

88. Question

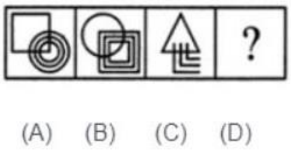
Determinne, how many triangles and parallelograms respectively are there in the given figure?

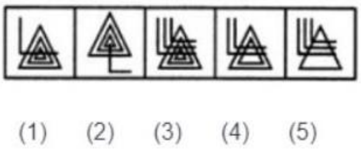


a) 21 Triangles and 17 Parallelograms respectively
b) 19 Triangles and 15 Parallelograms respectively
c) 21 Triangles and 13 Parallelograms respectively
d) 17 Triangles and 15 Parallelograms respectively
e) 21 Triangles and 13 Parallelograms respectively

89. Question

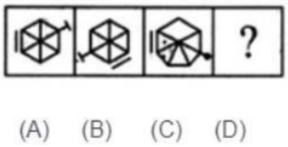
Select a suitable figure from the Answer Figures that would replace the question mark (?) in the Problem Figure:
Problem Figures
Answer Figures:

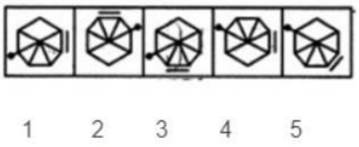




a)3
b)2
c)1
d)4
e)5

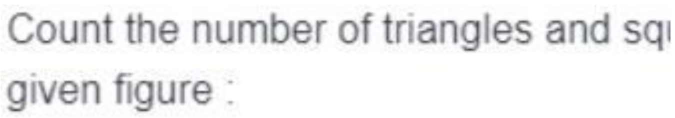
90. Question

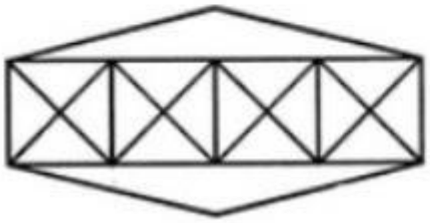




a)3
b)2
c)1
d)4
e)5

91. Question

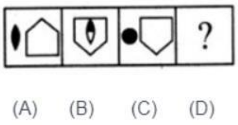

Count the number of triangles and sq
given figure :

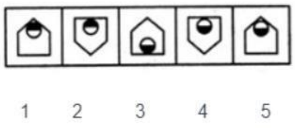


a) 40 triangles, 9 squares
b) 42 triangles, 9 squares
c) 40 triangles, 7 squares
d) 36 triangles, 7 squares
e) 36 triangles, 9 squares

92. Question

Select a suitable figure from the Answer Figures that would replace the question mark (?).
Problem Figures Answer Figures

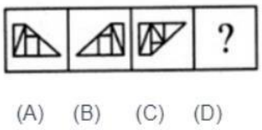


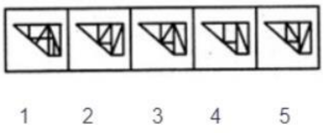


a)3
b)2
c)1
d)4
e)5

93. Question

Select a suitable figure from the Answer Figures that would replace the question mark (?).
Problem Figures Answer Figures

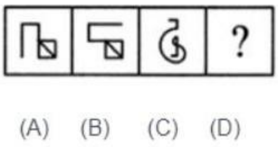


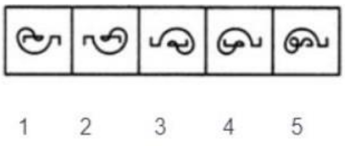


a)3
b)2
c)1
d)4
e)5

94. Question

Select a suitable figure from the Answer Figures that would replace the question mark (?).
Problem Figures Answer Figures

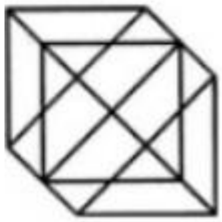




a)3
b)2
c)1
d)4
e)5

95. Question

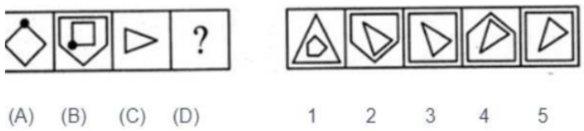
Find the number of triangles in the given figure



a)25
b)28
c)24
d)23
e)28

96. Question

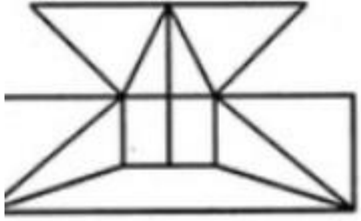
Select a suitable figure from the Answer Figures that would replace the question mark (?).
Problem Figures Answer Figures



a)3
b)2
c)1
d)4
e)5

97. Question

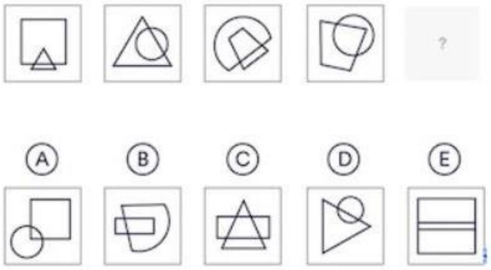
Find the minimum number of straight lines required to make the given figure:



a)17
b)16
c)13
d)15
e)19

98. Question

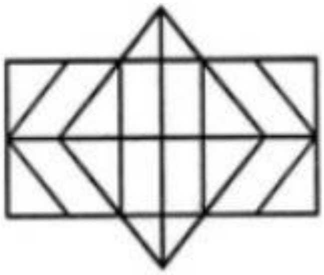
Choose the figure from the lower row that shall come in place of the sign'?' in the upper row:



a)C
b)B
c)A
d)D
e)E

99. Question

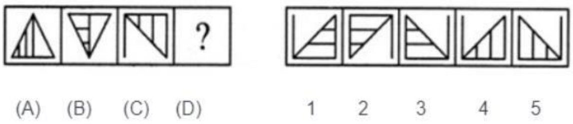
Determine the number of rectangles and hexagons respectively in the given figure



a) 30 Rectangles and 3 Hexagons respectively
b) 30 Rectangles and 5 Hexagons respectively
c) 32 Rectangles and 4Hexagons respectively
d) 28 Rectangles and 3 Hexagons respectively
e) 32 Rectangles and 5 Hexagons respectively

100. Question

Select a suitable figure from the Answer Figures that would replace the question mark (?).
Problem Figures Answer Figures



a) 3
b) 2
c) 1
d) 4
e) 5

SOLUTION-B

QUANTS

101. Question

A room is 15 m long and 12 m broad. If the sum of the areas of the floor and the ceiling of the room is equal to the sum of the areas of four walls, then the volume of the hall will be:

a) 720 m^3
b) 1200 m^3
c) 1260 m^3
d) 1600 m^3
e) 900 m^3

.

102. Question

The arithmetic mean of all the distinct numbers that can be obtained by rearranging the digits in 1421, including itself, is

a)4444
b)3333
c)2592
d)2442
e)2222

103. Question

A courier delivery agent, starts at point A and makes a delivery each at points B, C and D, in that order. He travels in a straight line between any two consecutive points. The following are known:
(i) AB and CD intersect at a right angle at E, and
(ii) BC, CE and ED are respectively 1.3 km, 0.5 km and 2.5 km long.
If AD is parallel to BC, then what is the total distance (in km) that the delivery agent covers in travelling from A to D ?

a)11.5
b)11
c)5.5
d)12
e)10.5

104. Question

A fish is released in the water at the edge of a large circular pool. The fish swims North for 300 feet before it hits the edge of the pool. It then turns East and swims for 400 feet before hitting the edge again.
Determine the area of the circular shaped pool?

a) 62500 π
b) 60000 π
c) 6000 π
d) 64000 π
e) 125000 π

105. Question

Gurmeet's clock gains 4 seconds every 20 minutes, it shall gain exactly how many minutes in 25 hours ?

a) 6
b) 5
c) 4
d) 7
e)25

106. Question

The mean of six positive integers is 15. The median is 18, and the only mode of the integers is less than 18. The maximum possible value of the largest of the six integers is

a)28
b)26
c)30

d)34
e)32

107. Question

Area of a Rhombus of perimeter 56 cms is 100 sq cms. Find the sum of the lengths of its diagonals in cm

a)34.40
b)32.20
c)31.20
d)33.40
e)35.40

108. Question

If a, b and c are positive integers such that ab = 432 bc = 96 and c < 9, then the smallest possible value of a + b + c is:

a)59
b)38
c)49
d)56
e)46

109. Question

ABC is a triangle with integer-valued sides AB = 1 BC > 1 and CA >1. If D is the mid- point of AB, then, which of the following options is the closest to the maximum possible value of the angle ACD (in degrees)?

a)45
b)90
c)15
d)30
e)60

.

110. Question

Let x, y, z be three positive real numbers in a geometric progression such that x < y < z.
If 5x, 16y, and 12z are in an Arithmetic Progression, then the common ratio of the geometric progression shall be

a)5/2
b)1/2
c)3/5
d)1/6
e)2/5

111. Question

A man standing on top of a tower sees a car coming towards the tower. If it takes 20 minutes for the angle of depression to change from 30° to 60°, what is the time remaining for the car to reach the tower ?

a) 12 minutes
b) 5 min
c) 10sqrt(3) min
d) 20sqrt(3) min
e) 10 min

112. Question

Bottle 1 contains a mixture of milk and water in 7: 2 ratio and Bottle 2 contains a mixture of milk and water in 9: 4 ratio. In what ratio of volumes should the liquids in Bottle 1 and Bottle 2 be combined to obtain a mixture of milk and water in 3:1 ratio?

a)24:13
b)27:13
c)27:16
d)23:18
e)27:14

113. Question

The central park of the city is 40 metres long and 30 metres wide. The city municipal officer wants to construct two roads of equal width in the park such that the roads intersect each other at right angles and the diagonals of the park are also the diagonals of the small rectangle formed at the intersection of the two roads.

Further, the officer wants that the area of the two roads to be equal to the remaining area of the park.

What should be the width of the roads in metres ?

a)9
b)12
c)10
d)16
e)15

114. Question

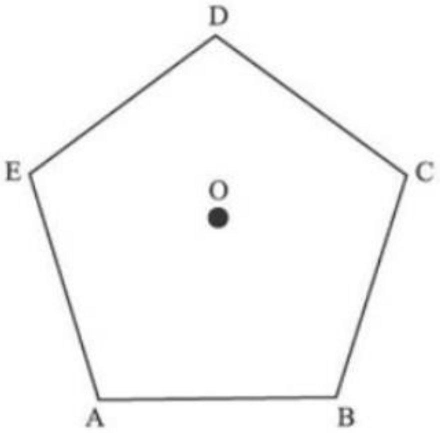
What is the remainder if 19^{20}-20^{19} is divided by 7:

a)1
b)5
c)7
d)0
e)3

115. Question

ABCDE is a regular pentagon. O is a point inside the pentagon such that AOB is an equilateral triangle.

Determine ∠OEA:



a)56^0
b)72^0
c)54^0
d)48^0
e)66^0

116. Question

A solid right circular cone of height 27 cm is cut into two pieces along a plane parallel to its base at a height of 18 cm from the base. If the difference in volume of the two pieces is 225 cc, the volume, in cc, of the original cone shall be :

a)220
b)232
c)256
d)343
e)243

117. Question

Determine, as to how many distinct positive integer-valued solutions exist to the equation: (x ^ 2 - 7x + 11)(x ^ 2 - 13x + 42) = 1

a)0
b)6
c)4
d)2
e)8

118. Question

A cistern 6 m long and 4 m wide contains water up to a depth of 1 m 25 cm. The total area of the wet surface shall be :

a) 150 m^2
b) 48 m^2
c) 53.5 m
d) 49 m^2
e) 50 m^2

119. Question

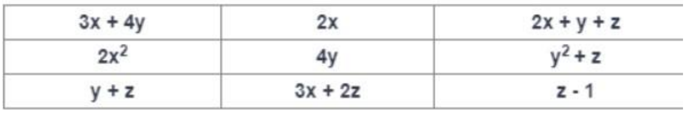
A, B and C have a few coins with them. 7 times the number of coins that A has is equal to 5 times the number of coins B has while 6 times the number of coins B has is equal to 11 times the number of coins C has.
What is the minimum number of coins that A, B and C put together have with them?

a) 112
b)174
c)154
d)164
e)110

- .

120. Question

Mathematician, Dr. Arnav has devised a magic 3 * 3 square box, shown below, where in the sum of each row, column and diagonal is the same number, W. The entries in each of the 9 cells are given by x, y, z. Find the value of W.



$3x + 4y$	$2x$	$2x + y + z$
$2x^2$	$4y$	$y^2 + z$
$y + z$	$3x + 2z$	$z - 1$

a) 18
b) 48
c)12
d)24
e)36

121. Question

Of 60 students in a class, anyone who has chosen to study Maths elects to do Physics as well. But no one does Maths and Chemistry, 16 do physics and Chemistry.
All the students do at least one of the three subjects and the number of people who do exactly one of the three is more than the number who do more than one of the Three.
What are the maximum and minimum number respectively of students who could have done Chemistry only?

a) 44,0
b) 40,2
c) 38,0
d) 44,2
e) 42,0

122. Question

Which among the following is the smallest 7 digit number that is exactly divisible by 43?

a)1000043
b)1000048
c)1000051
d)1000006
e)1000008

123. Question

Determine the mean of all 4-digit even natural numbers of the form 'aabb', where a > 0

a) 4840

b) 5544
c)5050
d)4466
e)4864

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124. Question

Cylindrical cans of cricket balls are to be packed in a box.
Each can has a radius of 7 cm and height of 30 cm.
Dimension of the box is L = 76cm B = 46cm H = 45cm
What is the maximum number of cans that can fit in the box?

a)21
b)20
c)22
d)17
e)18

125. Question

Twenty women can do a work in sixteen days. Sixteen men can complete the same work in fifteen days. Determine the ratio of the capacity of doing said work of a man and a woman?

a) 7:4
b) 5:4
c) 5:3
d) 3:4
e) 4:3

126. Question

A train 110 metres long is running at a speed of 60 kmph. In how many seconds will it pass a lady who is running at a speed of 6 kmph in the direction opposite to that in which the train is going?

a)8
b)24
c)6
d)12
e)10

127. Question

In a square PQRS, A and B are two points on PS and SR such that PA = 2AS and RB = 2BS
If, PQ = 6 Then determine the area of the triangle ABQ is (in sq. cm):

a)12
b)10
c) 8
d) 9
e)24

128. Question

A boat having a length 3 m and breadth 2 m is floating on a lake. The boat sinks by 1 cm when a man gets on it. Determine the mass of the man who has got on the said boat:

a) 48 kg
b) 90 kg
c) 60 kg
d) 96 kg
e) 72 kg

129. Question

Two trains are moving in opposite directions @ 60 km/hr and 90 km/hr. Their lengths are 1.10 km and 0.9 km respectively. The time taken by the slower train to cross the faster train in seconds is:

a)50
b)46
c)45
d)49
e)48

130. Question

From the digits 2, 3, 4, 5, 6 and 7, how many 5-digit numbers can be formed that have distinct digits and are multiples of 12?

a)48
b)84
c)72
d)60
e)96

131. Question

P can complete a work in 12 days working 8 hours a day. Q can complete the same work in 8 days working 10 hours a day. If both P and Q work together, working 8 hours a day, in how many days can they complete the same work?

a) 48/7 days
b) 61/11 days
c) 60/11 days
d) 72/11 days
e) 71/11 days

132. Question

A car of length 4m wants to overtake a trailer truck of length 20m travelling at 36 km/hr within 10 seconds. At what speed should the car travel?

a)12m/s
b)11.6m/s
c)10.6m/s
d)12.4m/s
e)14.8m/s

133. Question

A and B stand at distinct points of a circular race track of length 120m. They run at speeds of a m/s and b m/s respectively. They meet for the first time 16 seconds after they start the race and for the second time 40 seconds from the time they start the race. Now, if B had started in the opposite direction to the one he had originally started, they would have met for the first time after 40 seconds. If B is quicker than A, find B's speed:

a) 10 m/s
b) 5 m/s
c) 3 m/s
d) 4 m/s
e) 6 m/s

134. Question

Determine as to how many numbers are there which are less than 100 and that cannot be written as a multiple of a perfect square greater than 1:

a)62
b)59
c)60
d)64
e)61

135. Question

Due to some technical problem in the machine of his motorbike, Arojeeth had to decrease the speed to 75% of the normal speed and hence he was late for work by 2 hrs. What is the normal time taken by him to reach for his work at the normal speed ?

a) 512 min
b) 360 min
c) 480 min

d) 560min
e) 240 min

136. Question

Four friends, Ananyaa, Brian, Chaitra, and Deepali, decide to jog for 30 minutes inside a stadium with a circular running track that is 200 metres long. The friends run at different speeds. Ananyaa completes a lap exactly every 60 seconds. Likewise, Brian, Chaitra and Deepali complete a lap exactly every 1 minute 30 seconds, 40 seconds and 1 minute 20 seconds respectively. The friends begin together at the start line exactly at 4 p.m. What is the total of the numbers of laps the friends would have completed when they next cross the start line together?

a)43
b)37
c)47
d)26
e)46

137. Question

A right triangle with sides 3 cm, 4 cm and 5 cm is rotated by the side of 3 cm to form a cone. The volume of the cone so formed shall be

a) 16 π cm^3
b) 9 π cm^3
c) 12 π cm^3
d) 20 π cm^3
e) 15 π cm^3

138. Question

Aahaana and Bianca start a new business in profit sharing ratio of 60:40. Aahaana is to put in Rs. 1,00,000/- as the initial investment and Bianca was to take care of each client @ Rs. 400/- per client. If they can take a maximum of only up to 500 clients in the first year and Aahaana wants to recover her investment in the first year itself, then what shall be the minimum number of clients that the two partners need to get, for the business to get profitable, provided that each client needs to pay Rs. 2,000/- for the product that Aahaana and Bianca plan to sell ?

a) 79
b)63
c)64
d)68
e)61

139. Question

There are three numbers such that four times the first number is equal to three times the second number and six times the second number is equal to four times the third number. If the first number is nine less than the third number, find the second number?

a)21
b)12
c)18
d)15
e)9

140. Question

The strength of a salt solution is p% if 100 ml of the solution contains p grams of salt. Each of three vessels A, B, C contains 500 ml of salt solution of strengths 10%, 22%, and 32%, respectively. Now, 100 ml of the solution in vessel A is transferred to vessel B. Then, 100 ml of the solution in vessel B is transferred to vessel C. Finally, 100 ml of the solution in vessel C is transferred to vessel A.

Now, the strength, in percentage, of the resulting solution in vessel A shall be:

a)13%
b)14%
c)12%
d)16%
e)15%

141. Question

A large cube is formed from the material obtained by melting three smaller cubes having sides of 3, 4 and 5 cm. Determine the ratio of the total surface areas of the smaller cubes and the large cube:

a) 5:3
b) 25:18
c)3:2
d)25:16
e)27:20

142. Question

If Sudhir wants to write on a blank paper, all numbers from 100 to 10,000, then how many times would the digit 3 be written by him on the paper ?

a)3880
b)3840
c)3980
d)4020
e)3780

143. Question

If:

A can do a piece of work in 4 hours; B and C together can do it in 3 hours, while A and C together can do it in 2 hours. Then determine as to how long will B alone take to do the same work?

a) 6 hours
b) 4 hours
c) 8 hours
d) 12 hours
e) 10 hours

144. Question

A shopkeeper sells two tables, each procured at cost price p, to Asif and Arif at a profit of 20% and at a loss of 20%, respectively

Asif sells his table to Adil at a profit of 30%, while Arif sells his table to Alif at a loss of 30%. If the amounts paid by Adil and Alif are x and y, respectively, then (x -y) / p equals to:

a) 1.0
b) 0.8
c) 0.7
d) 1.1
e) 1.2

145. Question

A deer and a tiger are joyfully playing with each other. The deer notices that it is 40 steps away from the tiger and starts running towards it. At the same time, the tiger starts running away from the deer. Both run on the same straight line. For every five steps the deer takes, the tiger takes six steps. However, the deer takes only two steps to cover the distance that the tiger covers in three steps. In how many steps can the deer catch the tiger?

a)200
b)230

c)120
d)180
e)320

146. Question

Machine P can print one lakh books in 8 hours, Machine Q can print the same number of books in 10 hours while Machine R can print them in 12 hours. All the machines are started at 9 A.M. while machine P is closed at 11 A.M. and the remaining two machines are used to complete the remaining work. Approximately at what time will the work (to print one lakh books) be finished?

a) 11 PM
b) 12 Noon
c) 1 PM
d) 11:30 AM
e) 2 PM

147. Question

A 270 metres long train running at the speed of 120 kmph crosses another train running in opposite direction at the speed of 80 kmph in 9 seconds. What is the length of the other train in metres ?

a) 248
b)240
c)320
d)230
e)224

148. Question

If given that:
i. - y ^ 2 + x ^ 2 = 20
ii. - y ^ 3 - 2x ^ 2 - 4z >= - 12/8
iii. x, y, and z are all positive integers

Find the value of z ?

a)6
b) 1
c)24
d)3
e)12

149. Question

A triangle ABC has sides x, y, z such that xz = 12 and that x. y and z are positive integers. Determine, how many such triangles are possible to be constructed ?

a)12
b)11
c)6
d)8
e)9

150. Question

A wheel makes 1000 revolutions in covering a distance of 88 kilometres. Find the radius of the wheel?

a) 14 m
b) 10 m
c) 14.8 m
d) 12.8 m
e) 12 m

VERBAL

151. Question

Five jumbled up sentences, related to a topic, are given below. Four of them can be put together to form a coherent paragraph. Identify the odd one out:

a) Androcentric literature structures the reading experience differently depending on the gender of the reader
b) More specifically, the feminist inquiry into the activity of reading begins with the realization that the literary canon is androcentric, and that this has a profoundly damaging effect on women readers
c) For feminists, the question of how we read is inextricably linked with the question of what we read.
d) The documentation of this realization was one of the earliest tasks undertaken by feminist critics
e) Elaine Showalter's critique of the literary curriculum is exemplary of this work.

152. Question

Select the Synonym of the given word: CORPULENT

a) Police
b)Gaunt
c) Emaciated
d)Emancipation
e)Obese

153. Question

Which of the following words are not followed by their correct meanings:
A. Word: Affectation :: Meaning: Insincere Pretense
B. Word: Complaisant :: Meaning: Obliging
C. Word: Burlesque :: Meaning: Blunt
D. Word: Contemn :: Meaning: Despise
E. Word: Continual:: Meaning: Going on at all the times with short breaks in between

a)C
b)B
c)A
d)D
e)E

154. Question

Oar is to a Rowboat as Foot is to:

a)Marathon
b) Jumping
c)Running
d)Sneaker
e)Skateboard

155. Question

Which of the following is a grammatically Correct sentence

a) You better had tell her everything, or else you would lose a friend.
b) You better had tell her everything, or else you will lose a friend
c) You had better told her everything, or else you would lose a friend.
d) You had better told her everything, or else you will lose a friend
e) You had better tell her everything, or else you will lose a friend

156. Question

Select the Synonym of the given word: IRASCIBLE

a)Ingenious
b)Indigenous
c)Rascist
d) Hot tempered
e)Stoic

157. Question

In the question below, there is a passage that consist of Six sentences.

The First and Sixth sentence (named as S_1 and S6 respectively are given in the beginning and end. The middle Four sentences in each have been jumbled up.

These are labelled as P, Q, R and S.

Find out the proper order for the Four jumbled sentences

S_1: All the land was covered by the ocean.

P:The leading god fought the monster, killed it and chopped its body in to two halves.

Q:A terrible monster prevented the gods from separating the land from the water.

R:The god made the sky out of the upper part of the body and ornamented it with stars.

S:The god created the earth from the lower part, grew plants on it and populated it with animals.

S6:The god moulded the first people out of clay according to his own image and mind.

The Proper sequence should be:

a) R,Q,S,P
b) Q,P,R,S
c) S,Q,R,P
d) Q,R,P,S
e) R,S,P,Q

158. Question

Select the Synonym of the given word:
SALACITY

a)Illegitimate
b)indecent
c)inherent
d)Pious
e)Few

159. Question

The four sentences (labelled 1, 2, 3, 4) below, when properly sequenced would yield a coherent paragraph. Decide on the proper sequencing of the order of the sentences and key in the sequence of the four numbers as your answer:

1. The more we are able to accept that our achievements are largely out of our control, the easier it becomes to understand that our failures, and those of others, are too.
2. But the raft of recent books about the limits of merit is an important correction to the arrogance of contemporary entitlement and an opportunity to reassert the importance of luck, or grace, in our thinking.
3. Meritocracy as an organising principle is an inevitable function of a free society, as we are designed to see our achievements as worthy of reward.
4. And that in turn should increase our humility and the respect with which we treat our fellow citizens, helping ultimately to build a more compassionate society

a) 3,2,1,4
b) 1,3,4,2
c) 2,4,3,1
d) 4,2,3,1
e) 3,1,2,4

160. Question

__________medicine has been operated by trial and error, in other word__________

We know by now that there can be entirely _________connections between symptoms and treatment, and some medications succeed in medical trials for mere random reasons.

From the options below, choose the one that most appropriately fills up the three blanks.

a) Periodically, logically, arbitrary
b) Formerly, randomly, accidental
c) Initially, statistically, unexpected
d) Historically, arbitrarily, fortuitous
e) Traditionally, analytically, casual

161. Question

Read the sentences numbered 1, 2, 3, 4, 5, and 6 correctly and answer the question that follows:

1. In my opinion, Tom Jones is a picaresque novel.
2. According to me, Tom Jones is a bildungsroman.
3. The books were distributed between Jessica, Neha and Swati.
4. The books were distributed among Jessica and Neha.
5. Life teaches us important lessons.
6. The life moves forward, teaches backward.

Which of the above sentences are grammatically Correct?

a) 1,4,5
b) 1,4,6
c) 2,3,6
d) 1,3,5
e) 2,4,6

162. Question

Fill in the blanks with the most appropriate option that follows:

He got________next morning, to be sure, and had his meals-_______usual, though he ate________and had more, I am afraid, than his usual supply of rum, for he helped himself.......the bar, scowling and blowing_______his nose, and no one dared ...... cross him

a) Downstairs, as, little, out off, out of, through
b) Down, as, little, of, out, to
c) Down, like, a little, out of, out, to
d) Downstairs, like, a little, out, of, to
e) Down, like, a little, of, of through

163. Question

Read the passage carefully and select the statement that best supports the contents of the given passage:

Though the investment of time or the expenditure on fashions is very large, yet fashions have come to stay. They will not go, come what may. However, what is now required is that strong efforts should be made to displace the excessive craze for fashion from the minds of these youngsters.

a) Work and other activities should be valued more than the outward appearance.
b) Youth of today are not bothered
c) Fashion is the need of the day
d) The craze for excessive fashion should be done away with so as not to not ignore development
e) The excessive craze for fashion is detrimental to one's personality

164. Question

Identify the word with the correct spelling:

a) Otorhinolaryngologist
b) Otorhinoloryngologist
c) Othorhinolaryngologist
d) Orthorhinolaryngologist
e) Otorhinolarynologist

165. Question

A map is a useful metaphor for our brain when talking about_______because at its most basic level our brain________to be our atlas of sorts, a system of routes_______to navigate ustoward just one destination: staying alive ! From the options below, choose the one that most appropriately fills up the three blanks

a) Understanding, progressed, shaped
b) Perception, evolved, designed
c) Connections, changed, molded
d) Design, developed, shaped
e) Comprehension, metamorphosed, designed

166. Question

Select the Synonym of the given word:

CANNY

a)Stout
b)Liver
c)Clever
d)Wooden
e)Strange

167. Question

Read the following statements and answer the question that follows.

1. Behavioral models in finance most often critique the efficient market hypothesis, which states that if investors behave rationally then prices should reflect all available information about the financial asset in consideration.
2. A number of behavioral models, including feedback models where investors bid up the price, have been used to explain this phenomenon.
3. But asset price bubbles and crashes belie this conclusion.
4. Finance is one of the fields where behavioral models have been used extensively, enough for behavioral finance.
5. This idea of "irrational exuberance" is now widely accepted and used in financial analysis, especially while analyzing asset price bubbles.

Arrange the above five statements in a logical sequence

a) 4,3,2,1,5
b) 4,1,3,2,5
c) 1,2,3,4,5,
d) 4,1,3,5,2
e) 1,4,2,3,5

168. Question

Select the Synonym of the given word:
INEBRIATED

a) Drunk
b)Scold
c)Dreamy
d)Angry
e)Prohibition

169. Question

Read the following sentences and choose the option that best arranges them in a logical order.

1. As chroniclers of an incremental process, they discover that additional research makes it harder, not easier, to answer questions like: When was oxygen discovered? Who first conceived of energy conservation?
2. Simultaneously, these same historians confront growing difficulties in distinguishing the "scientific" component of past observation and belief from what their predecessors had readily labeled "error" and "superstition."
3. Increasingly, a few of them suspect that these are simply the wrong sorts of questions to ask. Perhaps science does not develop by the accumulation of individual discoveries and inventions.
4. In recent years, however, a few historians of science have been finding it more and more difficult to fulfill the functions that the concept of development-by-accumulation assigns to them.

a) 1,4,3,2
b) 1,3,2,4
c) 4,1,3,2
d) 4,3,2,1
e) 4,1,2,3

170. Question

In the question below, there is a passage that consist of Six sentences.

The First and Sixth sentence (named as S_1 and S6 respectively are given in the beginning and end. The middle Four sentences in each have been jumbled up.

These are labelled as P, Q, R and S.

Find out the proper order for the Four jumbled sentences

S1:In the middle of one side of the square sits the Chairman of the committee, the most important person in the room.

P:For a committee is not just a mere collection of individuals.

Q:On him rests much of the responsibility for the success or failure of the committee.

R:While this is happening we have an opportunity to get the 'feel' of this committe.

S:As the meeting opens, he runs briskly through a number of formalities.

S6:From the moment its members meet, it begins to have a sort nebulous life of its own.

The Proper sequence should be :

a) Q,P,S,R
b) S,R,P,Q
c) P,Q,R,S
d) Q,S,P,R
e) Q,S,R,P

171. Question

The four sentences (labelled 1, 2, 3, 4) below, when properly sequenced would yield a coherent paragraph. Decide on the proper sequencing of the order of the sentences and key in the sequence of the four numbers as your answer:

1. Relying on narrative structure alone, indigenous significances of nineteenth century San folktales are hard to determine.
2. Using their supernatural potency, benign shamans transcend the levels of the San cosmos in order to deal with social conflict and to protect material resources and enjoy a measure of respect that sets them apart from ordinary people.
3. Selected tales reveal that they deal with a form of spiritual conflict that has social implications and concern conflict between people and living or dead malevolent shamans.
4. Meaning can be elicited, and the tales contextualized, by probing beneath the narrative of verbatim, original-language records and exploring the connotations of highly significant words and phrases.

a) 4,3,2,1
b) 1,4,2,3
c) 1,2,3,4
d) 1,4,3,2
e) 2,4,3,1

172. Question

Fill in the blanks with the most appropriate options available:

In measuring electrical activity in different parts of the brain, researchers found that people who describe themselves as generally happy have more activity in the left prefrontal lobe of their brains than do other people. Therefore, a medication for_______the left prefrontal lobe of the brain would be an __________treatment for clinical depression.

a) suppressing, ineffective
b) stimulating, effective
c) challenging, impractical
d) improving, impressive
e) abutting, astute

173. Question

Fill in the blanks with the most appropriate options available:_________around race, gender and religion sometimes seems to have gone beyond ______in academic circles. The world would do better if we could all speak with a lighter heart more often about these things.

a) insensitivity, reality
b) insensitivity, the pale
c) sensitivity, parody
d) insensitivity, parody
e) sensitivity, the pale

174. Question

Identify the word with the correct spelling

a)Loghorrhea

b) Logorea
c)Lougorrhea
d)Logorrhea
e)Logorhea

175. Question

To forgive an injury is often considered to be a sign of weakness; it is really a sign of strength. It is easy to allow oneself to be carried away by resentment and hate into an act of vengeance; but it takes a strong character to restrain those natural passions. The man who forgives an injury proves himself to be the superior of the man who wronged himself and puts the wrong-doer to shame.

The passage best supports the statement that:

a) Natural passions are difficult to suppress
b) People tend to forgive the things happened in the past
c) Mercy is the noblest form of revenge
d) The sufferer alone knows the intensity of his sufferings.
e) A person with calm and composed nature has depth of thought and vision

176. Question

The four sentences (labelled 1, 2, 3, 4) below, when properly sequenced would yield a coherent paragraph. Decide on the proper sequencing of the order of the sentences and key in the sequence of the four numbers as your answer:

1. Various industrial sectors including retail, transit systems, enterprises, educational institutions, event organizing, finance, travel etc. have now started leveraging these beacons solutions to track and communicate with their customers.
2. A beacon fixed on to a shop wall enables the retailer to assess the proximity of the customer, and come up with a much targeted or personalized communication like offers, discounts and combos on products in each shelf.
3. Smart phones or other mobile devices can capture the beacon signals, and distance can be estimated by measuring received signal strength.
4. Beacons are tiny and inexpensive, micro-location-based technology devices that can send radio frequency signals and notify nearby Bluetooth devices of their presence and transmit information.

a) 1,4,2,3
b) 2,4,3,1
c) 3,4,1,2
d) 4,3,1,2
e) 4,1,3,2

177. Question

If in a Language, ZEROING is written as 65, BENDING is written as 41, then in the same Language, GRANDLY shall be written as:

a)100
b)80
c)81
d)77
e)88

178. Question

Go through the various sentences labelled as P, Q, R, S, and T of a particular paragraph which have been jumbled and determine their correct order:

P. Fast food intake for more than three times a week is associated with greater odds of atopic disorders such as asthma, eczema or rhinitis. Thus, it should be definitely and strictly controlled in children as it does no good.

Q. Regular junk food intake can lead to physical and psychological issues among children.

R. Lack of Vitamins such as A and C, and minerals such as magnesium and calcium, encourage the development of deficiency diseases and osteoporosis, as well as dental caries due to higher intake.

S. Junk food, which are rich in energy with lots of fat and sugar, are relatively low in other important nutrients such as protein, fiber, vitamins and minerals.

T. Emotional and self-esteem problems, along with chronic illnesses in later life due to obesity, are the issues associated with the junk food.

a)RQSTP
b)QRSTP
c)QSTPR
d)QSRTP
e)QSRPT

179. Question

The only true education comes through the stimulation of the child's powers by the demands of the social situations in which he finds himself. Through these demands he is stimulated to act as a member of a unity, to emerge from his original narrowness of action and feeling, and to conceive himself from the standpoint of the welfare of the group to which he belongs.

The passage best supports the statement that real education:

a) is not provided in our schools today
b) will take place if the children imbibe action and feeling.
c) comes from the self-centred approach of the students
d) will take place if the children are physically strong
e) comes through the interaction with social situations

S

180. Question

Read the following sentences and choose the option that best arranges them in a logical order.

1. I was scarcely in position ere my enemies began to arrive, seven or eight of them, running hard, their feet beating out of time along the road and the man with the lantern some paces in front.
2. My curiosity, in a sense, was stronger than my fear, for I could not remain where I was, but crept back to the bank again, whence, sheltering my head behind a bush of broom, I might command the road before our door.
3. Three men ran together, hand in hand; and I made out, even through the mist, that the middle man of this trio was the blind beggar.
4. The next moment his voice showed me that I was right

a) 2,1,3,4
b) 3,1,4,2
c) 1,2,4,3
d) 1,4,2,3
e) 2,1,4,3

181. Question

The passage given below is followed by Five alternate summaries. Choose the option that best captures the essence of the passage.

Several of the world's earliest cities were organised along egalitarian lines. In some regions, urban populations governed themselves for centuries without any indication of the temples and palaces that would later emerge; in others, temples and palaces never emerged at all, and there is simply no evidence of a class of administrators or any other sort of ruling stratum. It would seem that the mere fact of urban life does not, necessarily, imply any particular form of political organization, and never did. Far from resigning us to inequality, the picture that is now emerging of humanity's past may open our eyes to egalitarian possibilities we otherwise would have never considered.

a) We now have the evidence in support of the existence of an egalitarian urban life in some ancient cities, where political and civic organisation was far less hierarchical
b) Egalitarian society is and has been but just a pipe dream
c) Contrary to our assumption that urban settlements have always involved hierarchical political and administrative structures, ancient cities were not organised in this way.
d) The lack of hierarchical administration in ancient cities can be deduced by the absence of religious and regal structures such as temples and palaces.
e) The emergence of a class of administrators and ruling stratum transformed the egalitarian urban life of ancient cities to the hierarchical civic organisations of today.

182. Question

Five jumbled up sentences, related to a topic, are given below. Four of them can be put together to form a coherent paragraph. Identify the odd one out:

a) Freedom of speech and the power to silence may have been preeminent markers of white liberty in Colonies, but at the same time, slavery depended on dialogue: slaves could never be completely muted
b) Slave-owners obsessed over slave talk, though they could never control it, yet feared its power to bind and inspire-for, as everyone knew, oaths, whispers, and secret conversations bred conspiracy and revolt
c) Talk was the most common way for enslaved men and women to subvert the rules of their bondage, to gain more agency than they were supposed to have.
d) Even in conditions of extreme violence and unfreedom, their words remained ubiquitous, ephemeral, irrepressible, and potentially transgressive.
e) Slaves came from societies in which oaths, orations, and invocations carried great potency, both between people and as a connection to the all-powerful spirit world.

183. Question

Read the following passage and answer the question that follows:

We can think of the history of life on earth as a vast, long-term experiment in pure competition. Every living organism is competing with all other living organisms for resources (nutrients, sunlight, water, territory, etc.). Nature, or the natural world, is a laboratory of unfettered competition. It's a dog-eat- dog, no-holds-barred, day-in and day-out struggle.

There are no governmental regulators to protect the weak or favor the strong. All organisms are given a chance, but not necessarily an equal chance. As the climate and the environment change (and change they do), some organisms are favored over others at times, but these advantages are fleeting. What nature gives, nature can take away.

a) Without unforgiving competition, the planet will be inundated with the weak
b) Nature gives a fair opportunity to every organism to survive
c) Forgiveness is alien to the natural world
d) Competition is critical to ensure the survival of the fittest
e) Brutal competition is the only constant in the natural world

184. Question

Read the following verse and answer the questions that follow:

Sit, drink your coffee here; your work can wait awhile. You're fifty-six, and still have some of life ahead.
No need for wit, just feel vacuities, and I'll Reciprocate in kind, or laugh at you instead. The world is too opaque, distressing and profound. This twenty minutes rendezvous will make my day:
To sit here in the sun, with grackles all around, Staring with beady eyes, and you two feet away

a) Introvertedness
b)type of bird
c) Wrinkles
d) Dermatology
e) Solitude

185. Question

Read the following verse and answer the questions that follow:
Sit, drink your coffee here; your work can wait awhile. You're fifty-six, and still have some of life ahead.
No need for wit, just feel vacuities, and I'll Reciprocate in kind, or laugh at you instead. The world is too opaque, distressing and profound. This twenty minutes rendezvous will make my day:
To sit here in the sun, with grackles all around, Staring with beady eyes, and you two feet away.

a) A small bird like grackle can give us lots of happiness.
b) Grackles love to stare at us, however, they maintain a two-feet distance
c) Grackles, like humans, love to bask in the Sun
d) We should not care about grackles, but us
e) Over witty discussions, grackles are the pleasant birds to look at

186. Question

Read the following verse and answer the questions that follow:
Sit, drink your coffee here; your work can wait awhile. You're fifty-six, and still have some of life ahead.
No need for wit, just feel vacuities, and I'll Reciprocate in kind, or laugh at you instead. The world is too opaque, distressing and profound. This twenty minutes rendezvous will make my day:
To sit here in the sun, with grackles all around, Staring with beady eyes, and you two feet away. Which of the following most correctly captures the essence of the verse:

a) Let's eat, drink and be merry in the lap of nature.
b) Let's create our own meaning in life, no matter what
c) Let's celebrate our existence, not our work
d) Let's be gibberish, not rational about life
e) Let's enjoy a moment of peace in this busy life.

.

187. Question

Read the following passage and answer the questions that follow :
And that has to do with the question of uncertainty and doubt. A scientist is never certain. We all know that. We know that all our statements are approximate statements with different degrees of certainty; that when a statement is made, the question is not whether it is true or false but rather how likely it is to be true or false. We must discuss each question within the uncertainties that are allowed. And as evidence grows it increases the probability perhaps that some idea is right or decreases it. But it never makes absolutely certain one way or the other. Now, we have found that this is of paramount importance in order to progress. We absolutely must leave room for doubt or there is no progress and there is no learning. There is no learning without having to pose a question. And a question requires doubt. People search for certainty. But there is no certainty. People are terrified- how can you live and not know? It is not odd at all. You only think you know as a matter of

fact. And most of your actions are based on incomplete knowledge and you really don't know what it is all about or what the purpose of the world is or know a great deal of other things. It is possible to live and not know.

Which of the following most correctly describes the essence of the given passage

a) Doubting the established world order is the purpose of science
b) Science can never give a conclusive answer to a question
c) Reasonable discomfort with certainty is the path for progress
d) Reasonable scepticism is the characteristic of a scientific mind
e) Progress involves questioning accepted truths

188. Question

Read the passage given below and answer the questions that follow:

Multitasking has been found to increase the production of the stress hormone cortisol as well as the fight-or-flight hormone adrenaline, which can overstimulate your brain and cause mental fog or scrambled thinking. Multitasking creates a dopamine addiction feedback loop, effectively rewarding the brain for losing focus and for constantly searching for external stimulation. To make matters worse, the prefrontal cortex has a novelty bias, meaning that its attention can be easily hijacked by something new-the proverbial shiny objects we use to entice infants, puppies, and kittens. The irony here for those of us who are trying to focus amid competing activities is clear. The very brain region we need to rely on for staying on task is easily distracted. We answer the phone, look up something on the Internet, check our email, send an SMS, and each of these things tweaks the novelty- seeking, reward-seeking centers of the brain, causing a burst of endogenous opioids (no wonder it feels so good!), all to the detriment of our staying on task. It is the ultimate empty-caloried brain candy. Instead of reaping the big rewards that come from sustained, focused effort, we instead reap empty rewards from completing a thousand little sugarcoated tasks.

In the old days, if the phone rang and we were busy, we either didn't answer or we turned the ringer off. When all phones were wired to a wall, there was no expectation of being able to reach us at all times-one might have gone out for a walk or be between places, and so if someone couldn't reach you (or you didn't feel like being reached), that was considered normal. Now more people have cell phones than have toilets. This has created an implicit expectation that you should be able to reach someone when it is convenient for you, regardless of whether it is convenient for them. This expectation is so ingrained that people in meetings routinely answer their cell phones to say, "I'm sorry, I can't talk now, I'm in a meeting." Just a decade or two ago, those same people would have let a landline on their desk go unanswered during a meeting, so different were the expectations for reachability.

In the context of the given passage, which of the following best conveys the meaning of, "Now more people have cell phones than have toilets". ?

a) The need to be connected is more pronounced now
b) Everybody wants to stay connected, using cell phones
c) Cell phones have become a bigger necessity.
d) The usage of toilets is limited, while cell phones are used all the time
e) The number of cell phone users has increased over time

189. Question

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As per the passage, why do people routinely say, "I am sorry, I can't talk now, I'm in a meeting". ?

a) Becasue it best conveys that the speaker is a busy person.
b) Because, it is easier to send messages while in a meeting than to speak on a cell phone.
c) Because, multi-taskinng in a meeting is not good
d) Because, people in a meeting should not feel less important
e) Because if you carry a cell phone, you have to reply

190. Question

Read the passage given below carefully and answer the questios that follow:

Most of recorded human history is one big data gap. Starting with the theory of Man the Hunter, the chroniclers of the past have left little space for women's role in the evolution of humanity, whether cultural or biological. Instead, the lives of men have been taken to represent those of humans overall. When it comes to the lives of the other half of humanity, there is often nothing but silence.

And these silences are everywhere. Our entire culture is riddled with them. Films, news, literature, science, city planning, economics. The stories we tell ourselves about our past, present and future. They are all marked- disfigured by a female-shaped 'absent presence'. This is the gender data gap.

The gender data gap isn't just about silence. These silences, these gaps, have consequences. They impact on women's lives every day. The impact can be relatively minor. Shivering in offices set to a male temperature norm, for example, or struggling to reach a top shelf set at a male height norm. Irritating, certainly. Unjust, undoubtedly.

But not life-threatening. Not like crashing in a car whose safety measures don't account for women's measurements. Not like having your heart attack go undiagnosed because your symptoms are deemed 'atypical. For these women, the consequences of living in a world built around male data can be deadly.

One of the most important things to say about the gender data gap is that it is not generally malicious, or even deliberate. Quite the opposite. It is simply the product of a way of thinking that has been around for millennia and is therefore a kind of not thinking. A double not thinking, even: men go without saying, and women don't get said at all. Because when we say human, on the whole, we mean man.

This is not a new observation. Simone de Beauvoir made it most famously when in 1949 she wrote, 'humanity is male and man defines woman not in herself, but as relative to him, she is not regarded as an autonomous being. He is the Subject, he is the Absolute-she is the Other.' What is new is the context in which women continue to be 'the Other'. And that context is a world increasingly reliant on and in thrall to data. Big Data. Which in turn is panned for Big Truths by Big Algorithms, using Big Computers. But when your big data is corrupted by big silences, the truths you get are half-truths, at best. And often, for women, they aren't true at all. As computer scientists themselves say: 'Garbage in, garbage out."

Based on the passage, which of the following statements most correctly explains the meaning of "absent presence"?

a) The absence makes the case for the need for presence

b) The absence is female-shaped, making it present.

c) Because of the absence, one can recognise its presence.

d) By its sheer absence, it is present

e) The presence is felt due to the specificity of the absence

191. Question

Read the passage given below carefully and answer the questios that follow:

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Based on the passage, which of the following options most correctly describes "double not thinking"

a) Men's rejection of women as humans and women's acceptance of it is the double not thinking.
b) Whenever humans are mentioned, it is men, further, women are not mentioned.
c) Men not thinking and women not being allowed to think is due to double not thinking
d) Men, over millennia, always confused human with being only male.
e) Over millennia, men and women have been conditioned to treat women as unequal.

192. Question

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193. Question

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at best. And often, for women, they aren't true at all. As computer scientists
themselves say: 'Garbage in, garbage out."

Which of the following statements can be best concluded from the passage:

a) Emphasis on data-based decision making, can be devastating to women, given the gender data gap
b) Women have never been treated as distinct identities which causes the gender data gap.
c) Over millennia, men ignored women, which resulted in the gender data gap and deadly consequences
d) The need of the hour is to revisit the past, and reduce the gender data gap at the earliest
e) The gender data gap is amplified by data-based decision making.

194. Question

Read the given passage carefully and answer the questions that follow
:

Nature has all along yielded her flesh to humans. First, we took nature's materials as food, fibers, and shelter. Then we learned to extract raw materials from her biosphere to create our own new synthetic materials. Now Bios is yielding us her mind-we are taking her logic.

Clockwork logic the logic of the machines-will only build simple contraptions. Truly complex systems such as a cell, a meadow, an economy, or a brain (natural or artificial) require a rigorous nontechnological logic. We now see that no logic except bio-logic can assemble a thinking device, or even a workable system of any magnitude.

It is an astounding discovery that one can extract the logic of Bios out of biology and have something useful. Although many philosophers in the past have suspected one could abstract the laws of life and apply them elsewhere, it wasn't until the complexity of computers and human-made systems became as complicated as living things, that it was possible to prove this. It's eerie how much of life can be transferred. So far, some of the traits of the living that have successfully been transported to mechanical systems are self-replication, self-governance, limited self-repair, mild evolution, and partial learning.

We have reason to believe yet more can be synthesized and made into something new. Yet at the same time that the logic of Bios is being imported into machines, the logic of Technos is being imported into life. The root of bioengineering is the desire to control the organic long enough to improve it. Domesticated plants and animals are examples of technos-logic applied to life. The wild aromatic root of the Queen Anne's lace weed has been fine- tuned over generations by selective herb gatherers until it has evolved into a sweet carrot of the garden, the udders of wild bovines have been selectively enlarged in a "unnatural way to satisfy humans rather than calves. Milk cows and carrots, therefore, are human inventions as much as steam engines and gunpowder are. But milk cows and carrots are more indicative of the kind of inventions humans will make in the future: products that are grown rather than manufactured

Genetic engineering is precisely what cattle breeders do when they select better strains of Holsteins, only bioengineers employ more precise and powerful control. While carrot and milk cow breeders had to rely on diffuse organic evolution, modern genetic engineers can use directed artificial evolution-purposeful design-which greatly accelerates improvements.

The overlap of the mechanical and the lifelike increases year by year. Part of this bionic convergence is a matter of words. The meanings of "mechanical" and "life" are both stretching until all complicated things can be perceived as machines, and all self-sustaining machines can be perceived as alive.

Yet beyond semantics, two concrete trends are happening: (1) Human-made things are behaving more lifelike, and (2) Life is becoming more engineered.

The apparent veil between the organic and the manufactured has crumpled to reveal that the two really are, and have always been, of one being

The author claims that, "Part of this bionic convergence is a matter of words". Which one of the following statements best expresses the point being made by the author ?

a) "Mechanical" and "life" are words from different logical systems and are, therefore, fundamentally incompatible in meaning
b) Bionic words lead to an unseen convergence
c) "Bios" and "Technos" are both convergent forms of logic, but they generate meanings about the world that are mutually exclusive.
d) Mechanical" and "life" were earlier seen as opposite in meaning, but the difference between the two is increasingly blurred
e) A bionic convergence indicates the meeting ground of genetic engineering and artificial intelligence.

195. Question

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None of the following statements is implied by the arguments of the passage, except:

a) Purposeful design represents the pinnacle of scientific expertise in the service of human betterment and civilisational progress.

b) The biological realm is as complex as the mechanical one; which is why the logic of Bios is being imported into machines

c) Genetic engineers and bioengineers are the same insofar as they both seek to force evolution in an artificial way

d) Laws of life need to be undferstood by the youth of today if the humanity is to survive for long

e) Historically, philosophers have known that the laws of life can be abstracted and applied elsewhere.

196. Question

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The apparent veil between the organic and the manufactured has crumpled to reveal that the two really are, and have always been, of one being

The author claims that, "The apparent veil between the organic and the manufactured has crumpled to reveal that the two really are, and have always been, of one being." Which one of the following statements best expresses the point being made by the author here ?

a) Scientific advances need to be curtailed if the Society is to be made progressive.
b) Organic reality has crumpled under the veil of manufacturing, rendering the apparent and the real as the same being
c) Scientific advances are making it increasingly difficult to distinguish between organic reality and manufactured reality.
d) The crumpling of the organic veil between apparent and manufactured reality reveals them to have the same being.
e) Apparent reality and organic reality are distinguished by the fact that the former is manufactured.

Break

197. Question

Read the following passage carefully and answer the question that follows:
"People who work in law, hotel and food services, and technology were found the most likely to skip breakfast daily, according to a recent study. As for people who do eat breakfast and prefer a savoury type (sliced buttered toast for instance), the study found they tend to make more money, be night owls and prefer cats over dogs. If you prefer a sweet breakfast like a donut you tend to be a morning person, like romcoms and are a dog person".

Which of the following can be best inferred from the given passage ?

a) Hoteliers who eat regular breakfast are more likely to make more money than those who watch romcoms regularly
b) A preference for cats as pets over dogs, usually, is a result of eating eggs for breakfast daily
c) Lawyers, who eat savory breakfast daily, make more money than those lawyers who have early breakfast daily.
d) Among regular breakfast eaters, early risers have more sugar in their breakfast than late risers
e) IT professionals, who eat eggs for breakfast, are more likely to make more money than their counterparts who eat donuts for breakfast.

.

198. Question

Read the following passage carefully and answer the question that follows:
"People who work in law, hotel and food services, and technology were found the most likely to skip breakfast daily, according to a recent study. As for people who do eat breakfast and prefer a savoury type (sliced buttered toast for instance), the study found they tend to make more money, be night owls and prefer cats over dogs. If you prefer a sweet breakfast like a donut you tend to be a morning person, like romcoms and are a dog person".

Who amongst the following is most likely to suffer from Ailurophobia as per the contents of the given passage?

a) People who like romantic comedies
b] Hoteliers who eat healthy food
c) Lawyers who eat junk food
d) People who dislike owls
e) People who like to eat sliced buttered toasts

199. Question

Read the contents of the passage carfully and answer the questions that follow:
There is nothing spectacularly new in the situation. Most old-societies- turned-young-nation states learn to live in a world dominated by the psychology and culture of exile. For some, the twentieth century has been a century of refugees. Others like Hannah Arendt have identified refugees as virtually a new species of human being who have come to symbolize the distinctive violence of our time. Refugees as contemporary symbols, however, proclaim something more than a pathology of a global nation-state system. They also represent a state of mind, a form of psychological displacement that has become endemic to modernizing societies. One does not even have to cross national frontiers to become a refugee; one can choose to be seduced by the pull of self-induced displacement rather than be 'pushed' by an oppressive or violent system at home. It is this changed status of territoriality in human life that explains why, in immigrant societies, the metaphor of exile is now jaded. Some have already begun to argue that human beings need not have a 'home' as it has been traditionally understood in large parts of the world, that the idea itself is a red herring While the idea of exile begins to appear trite in intellectual circles, an increasingly large proportion of the world is getting reconciled to living with the labile sense of self. Exile no longer seems a pathology or an afliction. Displacement and the psychology of exile are in; cultural continuities and settled

communities are out; there is a touch of ennui about them.

Based on the contents of the passage, which of the following is the author likely to disagree the most with

a) A feeling of alienation in modernizing societies is a common phenomenon.
b) Being a refugee is a state of mind
c) Refugees symbolize exploitation and abuse of our times.
d) Intellectuals find the notion of exile irrelevant
e) One does not have to cross frontiers to become a refugee

200. Question

Read the contents of the passage carfully and answer the questions that follow:

There is nothing spectacularly new in the situation. Most old-societies- turned-young-nation states learn to live in a world dominated by the psychology and culture of exile. For some, the twentieth century has been a century of refugees. Others like Hannah Arendt have identified refugees as virtually a new species of human being who have come to symbolize the distinctive violence of our time. Refugees as contemporary symbols, however, proclaim something more than a pathology of a global nation-state system. They also represent a state of mind, a form of psychological displacement that has become endemic to modernizing societies. One does not even have to cross national frontiers to become a refugee; one can choose to be seduced by the pull of self-induced displacement rather than be 'pushed' by an oppressive or violent system at home. It is this changed status of territoriality in human life that explains why, in immigrant societies, the metaphor of exile is now jaded. Some have already begun to argue that human beings need not have a 'home' as it has been traditionally understood in large parts of the world, that the idea itself is a red herring While the idea of exile begins to appear trite in intellectual circles, an increasingly large proportion of the world is getting reconciled to living with the labile sense of self. Exile no longer seems a pathology or an afliction. Displacement and the psychology of exile are in; cultural continuities and settled communities are out; there is a touch of ennui about them.

Which of the following describes the meaning of the term "labile sense of self" most correctly as given in the passage?

a) History does not confine the self
b) The self adapts to a new geography
c) The self does not belong to a particular geography
d) Geography does not imprison the self
e) Humans are not meant to be shunted around

SOLUTIONS

1=

SOLUTION-[E]

It is given that A – 1, B – 2, C – 3,D – 4 and E – 5 is wrong. The rank of none of the student matched and no student followed her immediate predecessor.

D – 1, A – 2, E – 3, C – G, B – 5 has two correct and two students correctly followed the predecessor. The two conditions can be satisfied when either 1 and 2 or 4 and 5 are correct rankers and one of these two pairs is the one which correctly followed the predecessor. The other one which correctly followed the predecessor should be one from the other three.

Case (i), D – 1, A – Z are correct ranks. In this case C – 4 or B – 5 correctly followed the predecessor apart form A – Z. Then the possible correct arrangements are:

D – 1		D – 1
A – 2		A – 2
B – 3	or	C – 3
E – 4		B – 4
C – 5		E – 5
(a)		(b)

Here in (b) C – 3 and E – 5 are same as the guess made by the first student in which all are wrong. Hence, (b) is eliminated. In case (a) B is following A as in the guess made by the first student. Hence (a) is also eliminated.

case (ii): C – 4, B – 5 are correct ranks.

In this case A – 2 or E – 3 correctly followed the predecessor apart form B – 5. Then the possible correct arrangements are

A – 1		E – 1
E – 2		D –2
D – 3		A – 3
C – 4	or	C – 4
B – 5		B – 5
(c)		(d)

In (c) A – 1 is matching with the guess of the first student. Hence, (c) is eliminated. Arrangement (d) satisfied all the conditions. Hence, it is true that Ankit got the third position.

2=

SOLUTION-[C]

When the A covers 60% of the distance, The remaining distance covered by B is 40%.

Ratio of distance A and B = 60% / 40% = 3/2

We know that time is inversely proportional to distance. So, the Ratio of time A and B = 2/3

Here given A covers 60% of the distance at 10:00 AM and covers 100% of the distance at 10:12 AM.

A takes 12 minutes to cover 40% of the track

Time taken to cover 40% distance = 12 minutes

Time taken to cover 1% distance = (12/40) minutes

Time taken to cover 100% distance = 30 minutes

So, cover the whole track Time taken by A = 30 minutes

The time taken by A and B to complete the track are in the ratio 2:3

So, the time is taken by B to complete the track = (3/2) * 30 = 45 minutes.

Remaining distance covers by B = 60%

100% distance covered by B = 45 minutes

1% distance covered by B = (45/100) minutes

60% distance covered by B = 27 minutes So, B complete one complete round at 10:27 AM.

3=SOLUTION[C]-0

4= SOLUTION[E]

5= SOLUTION[A]-240

b = 2 a = 1 c = 0 or 1; Total possible numbers = 1 ^ * 2 b = 2 a = 1 or 2; c = 0 1 or 2; Total possible numbers = 2 ^ * 3

b = 8 a = 1 ,2....., 7; c = 0 ,1............,7 Total possible numbers = 7 ^ * 8 b = 9 a = 1 ,2......,8; 8; c = 0 ,1. ....,8; Total possible numbers = 8 ^ * 9

Total possible numbers= (1 ^ * 2)+(2^ * 3)+......+(7^ * 8)+(8^ * 9)

Sigma*n(n + 1) = Sigma(n ^ 2 + n) = (n(n + 1)(2n + 1))/6 + (n(n + 1))/2

Put n = 8 we get (1 ^ * 2)+(2^ * 3)+. .... +(7^ * 8)+(8^ * 9)=240

6= SOLUTION [C] OFFER III

7= SOLUTION[A] 10

Let '100x' be the number of students who joined XCRI last year.

Let 'a', 'b', 'c' and d be the number of students who play 1 game, 2 games, 3 games and 4 games respectively.

Therefore,

a + b + c + d = 100x 1)

a + 2b + 3c + 4d = 70x + 75x + 80x + 85x

a + 2b + 3c + 4d = 310x 2)

By equation (2) - (1)

$b + 2c + 3d = 210x$

We have to minimize 'd' for that we have to maximize c. But $c < 100x$

At Cmax = 90x, dmin = 10x

Therefore, we can say that the minimum percentage of students who play all four games = 10%.

8= SOLUTION[B] 12

Timings of reaching the office at the speeds of 8 km/h and 15km / h are 10:15 AM and 9:40 AM, respectively.

Hence, the difference in the time taken = 35 minutes

Let the distance from the home to the office be x km

So, we have the relation to calculate time as:

$(x / 8) - (x / 15) = 35/60$

Rightarrow x = 10km

He needs to reach the home by travelling for 50 minutes

.:. The required speed = 10 / (50/60) = 12km / h

9= SOLUTION[D] -SUNDAY

10= SOLUTION[E] 1/12

Two unbiased dice are rolled D1 and D2

Concept:

Probability = Number of desire event / Number of total event

Calculation:

→ Total number of events = 62 = 36

→ The sum on the top of the faces is greater than 10 will be possible in three cases (5, 6), (6, 5) and (6, 6)

→ Required probability = 3/36 = 1/12

.. The probability that the sum on the top of the faces is greater than 10 is 1/12

11= To decipher the expression "P@L+M#N*Q" according to the given definitions:

1. "@" represents brotherhood.
2. "+" represents sonship.
3. "#" represents fatherhood.
4. "*" represents spousal relationship.

Let's break down the expression step by step:

1. P@L: P is the brother of L.
2. M#N: M is the father of N.
3. Now, we have "P@L+M#N*Q".

   a. P@L+M#N: P is the brother of L, and M is the father of N.
   b. Since "+" represents sonship, L is the son of P.
   c. Since "*" represents spousal relationship, N is the wife of Q.

Therefore, "P@L+M#N*Q" means:

SOLUTION[A] -N IS THE SISTER OF L

12= SOLUTION[7]

In 2018 let salaries be 6x, 5x, 7x

In 2015 let salaries be 3y, 4y, 3y

Given that (3y - 6x) / 6 * x = 1/4 ----increase in A salary is 25%

So 4y - 8x = 2x

So x / y = 2/5 let x--2k and y-- 5k

Substitute so z salary in 2010 is 14k and in 2015 is 15k so (k / 14 * k) * 100 = 7.1%

13= SOLUTION[B]-125

Since A, B and C are adjacent faces. If we remove them, the resultant solid will also be a cube with side 5.

Hence total number of cubes unpainted = 53 = 125

14= SOLUTION[A] – PIXNARTH

15=SOLUTION[E]

To find the rates of interest for the two plans, we can use the formula for simple interest:

Simple Interest = Principal * Rate * Time

Let's assume the principal amount invested for each son is x.

For the younger , the time is 6 years (21-15) and the desired amount is Rs. 21 lakhs. So we have:

21,00,000 = x * 5/100*6

Simplifying this equation, we get:

21,00,000 = 30x/100

300x = 21,00,000*100

x = (21,00,000*100)/300

x = 7,00,000

So the principal amount invested for the younger son is Rs. 7 lakhs.

For the elder son, the time is 9 years (21-12) and the desired amount is Rs. 21 lakhs. So we have:

21,00,000 = x* 7.5/100*9

Simplifying this equation, we get:

21,00,000= 67.5x/100

675x = 21,00,000*100

x = (21,00,000*100)/675

x = 3,11,111.11 (rounded to the nearest rupee)

So the principal amount invested for the elder son is Rs. 3,11,111.

Therefore, the rates of interest for the two plans are:

a) 5% and 7.5%, respectively
b) 8% and 12%, respectively
c) 10% and 15%, respectively
d) 15% and 22.5%, respectively
e) 20% and 30%, respectively

The correct answer is option 'E' (20% and 30%, respectively

16= SOLUTION[D]-70.6

17= SOLUTION[A] 150MIN

As it took Prof. Mandal 30 minutes for round trip to the market by auto, we can infer that the auto takes 15 minutes for one way trip.

When he walks one way and return by auto, it took him 90 minutes.

We know the auto would have taken 15 minutes while returning.

So, the professor takes (90-15) = 75 minutes one way while walking to the market. So, for a round trip by walking, he will take 2* 75 minutes = 150 minutes.

Hence, option A is the correct.

18=SOLUTION[A] 90

The difference between the hour and minute hand of a clock is given by |30H - 5.5m| Here H is the current hour and m represents the number of completed minutes in the current hour.

In the given time frame of 2: 30 to 3: 00 pm.

At 2:30 pm the angle = |30 * 2 - 5.5 * 30| = 105 degrees

At 3: 00 pm the angle = |30 * 3 - 5.5 * 0| = 90 degrees

The function of 30H5.5m = constantly increases as the value of m increases from 31, 32. 59.

Because of the modulus function, the net value of the function remains positive

Between 2: 30 to 2: 59 the angle is constantly increasing. The minimum value is 2: 30 which is equal to 105 degrees which is greater than the 90 degrees when the time is 3: 00.

Hence 90 degrees is the minimum angle

19= SOLUTION [B] -17:35

Tank I-

Oil/total volume = 5/13 = 10/26

Tank II- Oil/total volume = 7/26

resultant ratio of oil to the total volume = x / 26

x = (10 + 7)/2 = 8.5 We can mark answer here, Numerator must be multiple of 17 and denominator must not be multiple of 13, C) resultant ratio of oil to the total volume = 8.5/26 = 17/52

the resultant ratio of oil and water = 17 / (52 - 17) = 17/35

20= SOLUTION-[B] SISTER

21=
SOLUTION[C] HARRY

Ranjan — Sangeeta

|
Amit — Manjula
|
Gurpal — Mini
|
Harry

22= SOLUTION[E]-214

had a very strange doubt in this question while I was solving it. Now in order to solve first I calculated the three digit numbers which won't have 2 at all in them and the number of such three digit numbers between 100 and 800 will be 6×9×9= 486.

Now as per the question we do no have to include 100 and 800 while counting so the total number of numbers between 100 and 800 will be 699 and hence the number of whole numbers which will have 2 in it should be 699486 = 213.

But let's say you have included 100 and 800 too then this will give the total number of numbers between 100 and 800 (both inclusive) will be 701 and hence the number of whole numbers which will have 2 in it should be 701-486= 215.

And when you include only 100 or 800 any one of them then the total number of numbers between 100 and 800 (any one of them is inclusive) will be 700 and hence the number of whole numbers which will have 2 in it should be 700-486 = 214

23= SOLUTION[45]E

The question is similar to the previous one. $^{10}C_2$= 45 ways

24= SOLUTION[E]-2/3

Number of white phones = 2
Number of black phones = 2
Number of red phones = 1
customer 1 will have 3 choices
customer 2 will have 3 choices
customer 3 will have 3 choices
Hence total choices = 3 x 3 x 3 = 27
The cases not possible = BBB, RRR, WWW, RRB,RBR, BRR, RRW,RWR, WRR
Possible cases = 18
Probability = 18/27 = 2/3

25= SOLUTION-[C] -07

26= SOLUTION-B -32

27= SOLUTION[E] -8/13

1. Red Cards: There are 26 red cards in a standard deck of 52 cards. This includes 2 red suits (hearts and diamonds), each containing 13 cards.
2. Face Cards: There are 3 face cards (jack, queen, king) in each suit. Since there are 4 suits in a deck, there are a total of 3 x 4 = 12 face cards in a deck.

Now, we need to consider the possibility of double counting the face cards that are also red (i.e., the face cards of hearts and diamonds). Since there are 6 face cards (jack, queen, king) in red suits (hearts and diamonds), we need to subtract these to avoid double counting.

So, the total number of red cards or face cards is 26 + 12-6 = 32.

Now, let's calculate the probability:
Total number of cards in the deck = 52
Probability of drawing a red card or a face card Number of red cards or face cards Total number of cards
32 52 =
Now, we can simplify this fraction:
8/13 =
Therefore, the probability that a card drawn from a well-shufled deck of cards is a 8 red card or a face card is 13

28= SOLUTION[C] – 4

29= SOLUTION[D]-N

30= SOLUTION[C]33.33%

Ram and Shyam invested 36,000 and 54,000 respectively
Ram: Shayam = 36000: 54000
=> Ram: Shayam = 2:3
Ram Share = 2/5
Shayam Share = 3/5
Let say Profit = 100P
percent of profit Ram received as Salary = x
Ram received Salary = (x/100)100P = Px
Remaining Profit = 100P - Px = P(100 - x)
Ram Share = (2/5) * P(100 - x)
Shayam Share = (3/5)P(100 - x)
Ram Total Share including salary = (2/5) * P(100 - x) + Px
= P(200 - 2x + 5x) / 5
= P(200 + 3x) / 5
(P(200 + 3x) / 5) / (3/5) * P(100 - x) = 3/2
Rightarrow 2P(200 + 3x) = 9P(100 - x) => 400 + 6x = 900 - 9x => 15x = 500 => x = 500/15 => x = 100/3 => x = 33.33%

31= SOLUTION[A]9

In a standard six-sided die, the sum of the opposite faces always equals 7. So, if one die shows a 3, then the face opposite to it would be a 4 (since 3 + 4 = 7). Similarly, if the other die shows a 2, then the face opposite to it would be a 5 (since 2 + 5 = 7). Therefore, the total of the faces opposite to the faces showing 3 and 2 would be 4 + 5 = 9.

32= SOLUTION[B]) YDCDKUQLDL

33= SOLLUTION-[A] 12 YEARs

Sum of the ages of the couple =24^ * 2 = 48
After the 1st and 2nd children, sum = 13.5 * 4 = 54
Difference in sum = 54-48 = 6 years
Or after 6/2 = 3 years, the twin were born to the couple (Ages of children at the time of birth is 0)
After 3rd child, sum = 13.2 * 5 = 66 yrs
Difference =6654 12
Or after 12/4 = 3 yrs, 3rd child was born
(Couple+ 2 children were already present. So 4)
After 4th child, um=16^ * 6 = 96yrs
Difference = 966630
Or after 30/5 = 6 yrs, 4th child was born
Current sum =19^ * 6 = 114yrs
Difference 114 - 96 = 18vrs
Or after 18/6 = 3 yrs
The gap between the children are as follows: 3 yrs, 6 yrs and 3 yrs
Age of eldest ones = 3 + 6 + 3 = 12
so, the current age of the twin children is 12 years.

34=SOLUTION[B] 28.30

For the minimum length of the government should be diagonal roads. The length of the road will be the same as the length of a diagonal of a square whose side length is 10 km.
Length of one diagonal= sqrt(2) * 10 = 1.414 * 10 = 14.14 km.
Therefore, the total length of both roads = 2 * 14.14 = 28.30km

35= SOLUTION-[B] CHERYL

The CEO drives a red car and parks in the first space. Enid drives a green car; Bert's car is not in the first space; David's is not in the first space, but the last. Alice's car is parked next to David's, so Cheryl is the CEO.

36=SOLUTION-[B] ALICE

Cheryl cannot be the secretary, since she's the CEO, nor can Enid, because she drives a green car, and the secretary drives a yellow car. David's, the purple car, is in the last space. Alice is the secretary, because her car is parked next to David's, which is where the secretary's car is parked

37= SOLUTION[D] GREEN

The vice president's car cannot be red, because that is the CEO's car, which is in the first space. Nor can it be purple, because that is the treasurer's car, which is in the last space, or yellow, because that is the secretary's. The president's car must be blue, because it is parked between a red car (in the first space) and a green car, which must be the vice president's.

38= SOLUTION-[B]-1,2,5,3,4

The most important reason for terminating the contract of Damdu would be the people of Churna feel that their produce might lose association with Churna and develop association with Damdu. The next important reason would be that people will not able to understand and see how the new markets develop, that is they would be confined to Churna only. The remaining three statements state the things Churna people will lose of which the most important would be their bargaining skills followed by their identity and then the social interaction with the outer world. So the correct order is 1, 2, 5, 3, 4

39=SOLUTION[A]

The best course of action for Damdu would be option A that is to set up a shop in Churna which will barter all the material requirements of the village. In this way the women of Churna would not sell their products in the Tendua market instead they sell them to Damdu as it would avoid transportation cost if they get all the materials for their requirement

40= SOLUTION[D] three-member team

Total percentage incentive when number of team members = 1 = 100%

Total percentage incentive when the number of team members = 2 = 160%

Total percentage incentive when the number of team members = 3 = 180%

Total percentage incentive when the number of team members = 4 = 190%

Total percentage incentive when the number of team members > 4 = 200%

From 1, Number of people in 8 different projects = 6 ,3,3,3,3,2,2,2 respectively

From 2, Given, exactly three projects are rated C and 4.8 lakh is paid in total

A minimum of 3 lakhs has to be paid for rating C => 3*1.6 = 4.8lakhs => All 2 member teams have been rated C

From 3, one project has been rated A ^ * . Let that project be handled by the team of 3 members Incentives = 180% of 6 = 10.8 lakh

Now remaining 6,3,3,3 should be either rated A or B and the total incentives should be equal to 45- 10.8-4.8 = 29.4 lakhs

Let us assume 6 has been rated B => Incentives = 200% of 3 = 6 lakhs The remaining 23.4 lakhs should come from 180%. 23.4 = 13 lakhs 1.8 Hence the remaining 3,3,3 can be rated as A, A, B

Hence final ratings are and total payouts are

6-B-6lakhs
3-A-9 lakhs
3-A - 9 lakhs
3-B-5.4 lakhs
3-A*-10.8lakhs
2 - c - 1.6 lakhs
2 - c - 1.6 lakhs
2 - c - 1.6 lakhs

41=SOLUTION[D] 18

Total percentage incentive when number of team members = 1 = 100%

Total percentage incentive when the number of team members = 2 = 160%

Total percentage incentive when the number of team members = 3 = 180%

Total percentage incentive when the number of team members = 4 = 190%

Total percentage incentive when the number of team members > 4 = 200%

From 1, Number of people in 8 different projects = 6 ,3,3,3,3,2,2,2 respectively

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Hence final ratings are and total payouts are

6-B-6lakhs

3-A-9 lakhs

3-A - 9 lakhs

3-B-5.4 lakhs

3-A*-10.8lakhs

2 - c - 1.6 lakhs

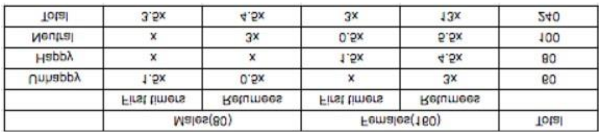
2 - c - 1.6 lakhs

2 - c - 1.6 lakhs

42= SOLUTION[C]- ALL ARE TWO MEMBER TEAM

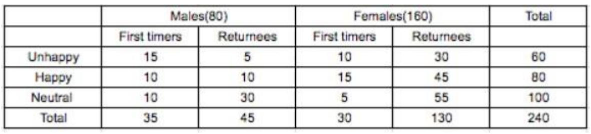
43= SOLUTION-[20] D

From the given data the following table can be created



	Males(80)		Females(160)		Total
	First timers	Returnees	First timers	Returnees	
Unhappy	1.5x	0.5x	x	3x	60
Happy	x	x	1.5x	4.5x	80
Neutral	x	3x	0.5x	5.5x	100
Total	3.5x	4.5x	3x	13x	240

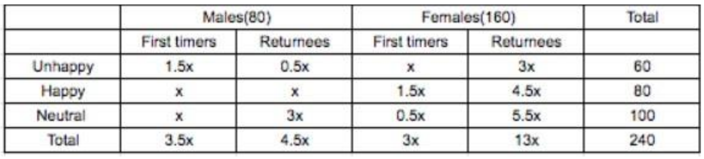
Hence the value of x=10



	Males(80)		Females(160)		Total
	First timers	Returnees	First timers	Returnees	
Unhappy	15	5	10	30	60
Happy	10	10	15	45	80
Neutral	10	30	5	55	100
Total	35	45	30	130	240

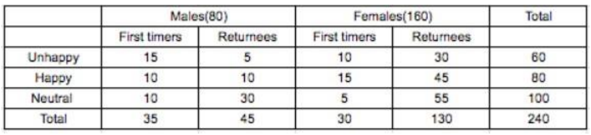
44= SOLUTION[A] - All the numerica ldata can be determined uniquely

From the given data the following table can be created



	Males(80)		Females(160)		Total
	First timers	Returnees	First timers	Returnees	
Unhappy	1.5x	0.5x	x	3x	60
Happy	x	x	1.5x	4.5x	80
Neutral	x	3x	0.5x	5.5x	100
Total	3.5x	4.5x	3x	13x	240

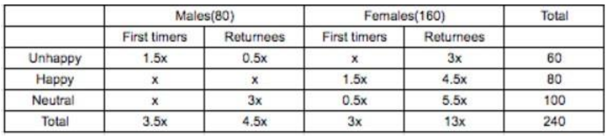
Hence the value of x=10



	Males(80)		Females(160)		Total
	First timers	Returnees	First timers	Returnees	
Unhappy	15	5	10	30	60
Happy	10	10	15	45	80
Neutral	10	30	5	55	100
Total	35	45	30	130	240

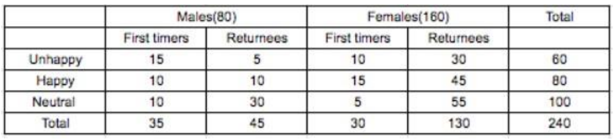
45= SOLUTION[E] Number of neutral first time female shoppers

From the given data the following table can be created



	Males(80)		Females(160)		Total
	First timers	Returnees	First timers	Returnees	
Unhappy	1.5x	0.5x	x	3x	60
Happy	x	x	1.5x	4.5x	80
Neutral	x	3x	0.5x	5.5x	100
Total	3.5x	4.5x	3x	13x	240

Hence the value of x=10



	Males(80)		Females(160)		Total
	First timers	Returnees	First timers	Returnees	
Unhappy	15	5	10	30	60
Happy	10	10	15	45	80
Neutral	10	30	5	55	100
Total	35	45	30	130	240

46= SOLUTION[B] FOXXY AND ELGAR

CONSIDER-
ALVA=ALVA
BITHI=BAL
CARL=CARDY
DEEP=DEEPALI
ESHA=ELGAR
FONI=FOXXY

Based on Condition II, we understand that the student who missed the Mathematics examination did not miss any other examination. This indicates that the Maths score is bound to be the average of the best 3 out of the 4 exam scores obtained by this candidate. Based on this inference, we can proceed with identifying the math score that can be represented as an average of the rest of the scores. We can straightaway eliminate Deep and Esha as potential candidates, given that their Mathematics score is greater than the rest of the exam scores. After estimating the average scores for the rest of the candidates, we observe that only Carl has missed his Mathematics examination.

For Carl: best 3 out of 4-80(Hindi), 90(Social Science), 100(Science)

Avg. = 270/3 = 90 which matches the given value

... Carl missed his Mathematics examination.

Further, based on Condition III, we can surmise that the student who missed Hindi and Science should have similar average scores in these two subjects. We notice that Alva has the same score of 75 in both Hindi and Science. The same can be said about Deep, who has a score of 90 in both these subjects. Thus, one out of Alva and Deep missed out on Hindi and Science examination, while the second individual missed out only on the Hindi examination.

Since we know that Carl, Alva and Deep are unlikely to have missed out on the English exam, we can divert our attention to determining which individual out of Bithi, Esha and Foni failed to appear for this subject. However, we notice that Bithi's English score is greater than the rest of her scores, thereby helping us eliminate her as the potential candidate.

For Esha: best 3 out of 4-85(Hindi), 95(Mathematics), 60(Science)

Avg. = 240/3 = 80 which matches the given value

... Esha most likely missed her English examination.

For Foni: best 3 out of 4-78(Mathematics), 83(Social Science), 88(Science)

Avg. 249/3 = 83 which matches the given value

... Foni most likely missed her English examination.

Based on Condition I, we know that exactly two candidates missed the examinations for English, Hindi, Science, and Social Science.

For English, we determined these individuals to be Esha and Foni. For Hindi, we determined these individuals to be Alva and Deep. For Science, we know one of the individuals is either Alva or Deep. Given that Carl, Alva and Deep cannot be a part of the group that missed Science or Social Science exam, we can proceed by carefully scrutinizing the rest of the group that includes Bithi, Esha and Foni.

We notice that Bithi has a similar score in both Science and Social Science examination. Assuming that she did miss these exams, let us proceed to check if this was actually the case.

For Bithi: Best 2 out 3-90(English), 80(Hindi)

Avg = 170/2 = 85 which matches the given value

... Bithi is likely to have missed her Science and Social Science examinations.

We additionally notice that Foni has a similar score in English and Social Science. On considering the

best 2 out of 3 scores, the average value of the score for both the subject holds (equal to 83). Thus, we can conclude that Bithi and Foni missed their Social Science examination.

Thus, the students who missed just one exam were: Carl (Mathematics); Esha (English) and one out of Alva and Deep (Hindi).

Hence of the six students, we can correctly determine the missed subjects for four of them (except Alva and Deep):

Mathematics: Carl; English: Esha & Foni; Hindi: Alva & Deep; Science: Bithi & one out of Alva and Deep; Social Science: Foni & Bithi

Hence, the correct answer to this question is Option : Esha and Foni.

47= SOLUTION[E] CARDY

CONSIDER-
ALVA=ALVA
BITHI=BAL
CARL=CARDY
DEEP=DEEPALI
ESHA=ELGAR

FONI=FOXXY

Based on Condition II, we understand that the student who missed the Mathematics examination did not miss any other examination. This indicates that the Maths score is bound to be the average of the best 3 out of the 4 exam scores obtained by this candidate. Based on this inference, we can proceed with identifying the math score that can be represented as an average of the rest of the scores. We can straightaway eliminate Deep and Esha as potential candidates, given that their Mathematics score is greater than the rest of the exam scores.

For Alva: best 3 out of 4-80(English), 75(Hindi), 75(Science)
Avg. = 230/3 = 76.67 ≠ 70
For Carl: best 3 out of 4-80(Hindi), 90(Social Science), 100(Science)
Avg. = 270/3 = 90 which matches the given value
... Carl most likely missed his Mathematics examination.
For Foni: best 3 out of 4-83(English), 83 (Social Science), 88(Science) Avg. = 254/3 = 84.67 ≠ 78
Hence, we observe that only Carl has missed his Mathematics examination.

48=SOLUTION[C] DEEPALI

CONSIDER-
ALVA=ALVA
BITHI=BAL
CARL=CARDY
DEEP=DEEPALI
ESHA=ELGAR
FONI=FOXXY

Based on Condition II, we understand that the student who missed the Mathematics examination did not miss any other examination. This indicates that the Maths score is bound to be the average of the best 3 out of the 4 exam scores obtained by this candidate. Based on this inference, we can proceed with identifying the math score that can be represented as an average of the rest of the scores. We can straightaway eliminate Deep and Esha as potential candidates, given that their Mathematics score is greater than the rest of the exam scores. After estimating the average scores for the rest of the candidates, we observe that only Carl has missed his Mathematics examination.
For Carl: best 3 out of 4-80(Hindi), 90(Social Science), 100(Science)
Avg. = 270/3 = 90 which matches the given value
... Carl missed his Mathematics examination.
Further, based on Condition III, we can surmise that the student who missed Hindi and Science should have similar average scores in these two subjects. We notice that Alva has the same score of 75 in both Hindi and Science. The same can be said about Deep, who has a score of 90 in both these subjects. Thus, one out of Alva and Deep missed out on Hindi and Science examination, while the second individual missed out only on the Hindi examination.
Since we know that Carl, Alva and Deep are unlikely to have missed out on the English exam, we can divert our attention to determining which individual out of Bithi, Esha and Foni failed to appear for this subject. However, we notice that Bithi's English score is greater than the rest of her scores, thereby helping us eliminate her as the potential candidate.
For Esha: best 3 out of 4-85(Hindi), 95(Mathematics), 60(Science)
Avg. = 240/3 = 80 which matches the given value
... Esha most likely missed her English examination.
For Foni: best 3 out of 4-78(Mathematics), 83(Social Science), 88(Science)
Avg. 249/3 = 83 which matches the given value
... Foni most likely missed her English examination.
Based on Condition I, we know that exactly two candidates missed the examinations for English, Hindi, Science, and Social Science.
For English, we determined these individuals to be Esha and Foni. For Hindi, we determined these individuals to be Alva and Deep. For Science, we know one of the individuals is either Alva or Deep. Given that Carl, Alva and Deep cannot be a part of the group that missed Science or Social Science exam, we can proceed by carefully scrutinizing the rest of the group that includes Bithi, Esha and Foni.

We notice that Bithi has a similar score in both Science and Social Science examination. Assuming that she did miss these exams, let us proceed to check if this was actually the case.
For Bithi: Best 2 out 3-90(English), 80(Hindi)
Avg = 170/2 = 85 which matches the given value
... Bithi is likely to have missed her Science and Social Science examinations.

We additionally notice that Foni has a similar score in English and Social Science. On considering the best 2 out of 3 scores, the average value of the score for both the subject holds (equal to 83). Thus, we can conclude that Bithi and Foni missed their Social Science examination.

Thus, the students who missed just one exam were: Carl (Mathematics); Esha (English) and one out of Alva and Deep (Hindi).

Hence of the six students, we can correctly determine the missed subjects for four of them (except Alva and Deep):

Mathematics: Carl; English: Esha & Foni; Hindi: Alva & Deep; Science: Bithi & one out of Alva and Deep; Social Science: Foni & Bithi

49=SOLUTION[C] ALVA AND DEEPALI

Based on Condition II, we understand that the student who missed the Mathematics examination did not miss any other examination. This indicates that the Maths score is bound to be the average of th best 3 out of the 4 exam scores obtained by this candidate. Based on this inference, we can proceed with identifying the math score that can be represented as an average of the rest of the scores. We can straightaway eliminate Deep and Esha as potential candidates, given that their Mathematics sco is greater than the rest of the exam scores. After estimating the average scores for the rest of the candidates, we observe that only Carl has missed his Mathematics examination.

For Carl: best 3 out of 4-80(Hindi), 90(Social Science), 100(Science) Avg. = 270/3 = 90 which matches the given value
... Carl missed his Mathematics examination.
Further, based on Condition III, we can surmise that the student who missed Hindi and Science shoul have similar average scores in these two subjects. We notice that Alva has the same score of 75 in both Hindi and Science. The same can be said about Deep, who has a score of 90 in both these subjects. Thus, one out of Alva and Deep missed out on Hindi and Science examination, while the second individual missed out only on the Hindi examination.

Since we know that Carl, Alva and Deep are unlikely to have missed out on the English exam, we can divert our attention to determining which individual out of Bithi, Esha and Foni failed to appear for thi subject. However, we notice that Bithi's English score is greater than the rest of her scores, thereby helping us eliminate her as the potential candidate.
For Esha: best 3 out of 4-85(Hindi), 95(Mathematics), 60(Science)
Avg. = 240/3 = 80 which matches the given value
... Esha most likely missed her English examination.
For Foni: best 3 out of 4-78(Mathematics), 83 (Social Science), 88(Science)
Avg. = 249/3 = 83 which matches the given value
... Foni most likely missed her English examination.

Based on Condition I, we know that exactly two candidates missed the examinations for English, Hindi, Science, and Social Science.

For English, we determined these individuals to be Esha and Foni. For Hindi, we determined these individuals to be Alva and Deep. For Science, we know one of the individuals is either Alva or Deep. Given that Carl, Alva and Deep cannot be a part of the group that missed Science or Social Science exam, we can proceed by carefully scrutinizing the rest of the group that includes Bithi, Esha and Foni.

We notice that Bithi has a similar score in both Science and Social Science examination.

Assuming that she did miss these exams, let us proceed to check if this was actually the case.

For Bithi: Best 2 out 3 - 90(English), 80(Hindi)

Avg = 170/2 = 85 which matches the given value

... Bithi is likely to have missed her Science and Social Science examinations.

We additionally notice that Foni has a similar score in English and Social Science. On considering the best 2 out of 3 scores, the average value of the score for both the subject holds (equal to 83). Thus, we can conclude that Bithi and Foni missed their Social Science examination.

Thus, the students who missed just one exam were: Carl (Mathematics); Esha (English) and one out of Alva and Deep (Hindi).

Hence of the six students, we can correctly determine the missed subjects for four of them (except Alva and Deep):

Mathematics: Carl; English: Esha & Foni; Hindi: Alva & Deep; Science: Bithi & one out of Alva and Deep; Social Science: Foni & Bithi

Hence, the correct answer to this question is Option B: Alva and Deep.

CONSIDER-
ALVA=ALVA
BITHI=BAL
CARL=CARDY
DEEP=DEEPALI
ESHA=ELGAR
FONI=FOXXY

50= SOLUTION [A] FIVE

From statement 6, it can be concluded that the total number of new cases is equal to 12+12+5+14 = 43.

Also, since the total number of cases in Kitmisto is 14, it can be concluded that the number of cases each day is either 2 or 3, where 3 cases are recorded on 4 days and 2 cases are recorded on 1 day.

From statement 4, it can be concluded that the number of new cases for Pesmisto will be 0,1,1,1, and 2, in any order(Since the total number of cases is 5, and the maximum number of new cases is 2).

In statement 3, it is given that the number of new cases kept increasing during the 5-day period.

Now, as it is already known that the maximum number of cases for Pesmisto is 2, the maximum total number of cases in a day(or on day 5) will be less than 12.

Let us consider the maximum number of cases on Day 5 as 10.

Thus the maximum number of cases possible for the remaining days will be 9, 8, 7, and 6. So, the total number of maximum cases possible for this case will be 40(less than 43).

Thus, the number of cases on Day 5 will be 11(i.e., b/w 10 and 11)

Now, if the number of cases on Day 4 is 9, the maximum number of cases possible for the remaining days will be 8, 7, and 6.

Thus, the maximum number of cases, in this case, will be 41 (less than 43).

So, the number of cases on day 4 will be 10. Now, if the number of cases on Day 3 is 8, the number of cases on day 2 will be 7, and the maximum possible number of cases on Day 1 will be 6. Thus, the number of cases, in this case, will be 42(less than 43).

Thus, the number of cases on day 3 will be 9, the number of cases on day 2 will be 8, and the number of cases on day 1 will be 5.

NEIGH	DAY 1	2	3	4	5	TOTAL
LEV						12
THRY						12
PES						5
KIT						14
TOTAL	5	8	9	10	11	43

Since all the neighbourhood has at least one case on Day 1, the only possible combination will be 1, 1, 1, and 2 for Levmisto, Tyhrmisto, Pesmisto and Kitmisto, respectively.

Now, for the other 4 days, the number of cases in Kitmisto will be 3.

For day 5, the number of cases will be 3, 3, 2, and 3 for Levmisto, Tyhrmisto, Pesmisto and Kitmisto, respectively(since the maximum number of cases in Pesmisto is 2).

And since Pesmisto only has the maximum number of cases on one day, the number of cases on day 4 will be 3, 3, 1, and 3 for Levmisto, Tyhrmisto, Pesmisto and Kitmisto, respectively. On day 2, since Kitmisto is the only neighbourhood to have 3 cases, the number of cases on day 2 will be 2, 2, 1, and 3 for Levmisto, Tyhrmisto, Pesmisto and Kitmisto, respectively. Now, on day 3, the number of cases will be 3, 3, 0, and 3 for Levmisto, Tyhrmisto, Pesmisto and Kitmisto, respectively.

Thus, the final table will be as follows

NEIGH	DAY 1	2	3	4	5	TOTAL
LEV	1	2	3	3	3	12
THRY	1	1	3	1	2	12
PES	1	3	0	3	3	5
KIT	2	3	3	3	3	14
TOTAL	5	8	9	10	11	43

51= SOLUTION[E] ONLY ON DAY 3

52= SOLUTION[B]

There have been exactly 3 cases in Levmisto on Day 3

53= SOLUTION[B]-

There have been exactly 8 cases on Day 2

54=SOLUTION[D]

T1,T2, AND T5

According to the data given in previous question, Arun have 10 days to do a background check, as he have to enter within 10 days of receiving permit.

The number of tasks that can be completed in this case is also 3.

Arun can complete T1, T2, and T5 or T1, T3, and T4 or T1, T3, and T5 or T2, T3, and T5 or T1, T4, and T5.

In this case, the time required to complete T1, T2, and T5 exceeds 10 days. The same is the case with T1, T2, and T3.

Among the given options, both options D and E are possible cases.

T5 is a higher priority task than T3. Therefore, Arun should try to complete T1, T2, and T5.

Therefore, option E is the right answer

55= SOLUTION[A] 20

Total number of Physics major from all locations = 225

... Total number of students = 225 0.18 = 1250

Number of engineering students = 20% * 1250 = 250

So, basis the given condition we have

$$\frac{18}{225}=\frac{x}{250}$$

=> x = 20

Hence, option D

(Note: This question has been presented as was in the actual paper and has been solved by the aid of visual inference)

56= SOLUTION[175] E

Total number of Physics major from all locations = 225

... Total number of students = 225/0.18=1250

Number of students majoring in chemistry = 14% * 1250 = 175

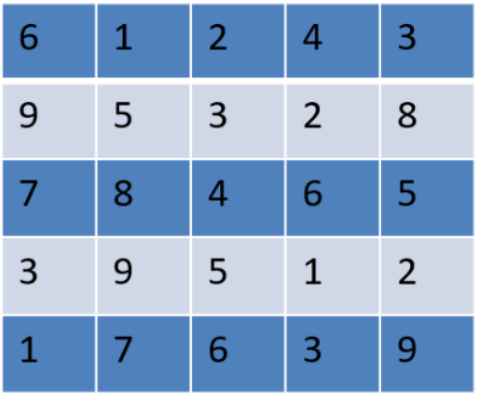
Hence, option E

57=SOLUTION[D] 73

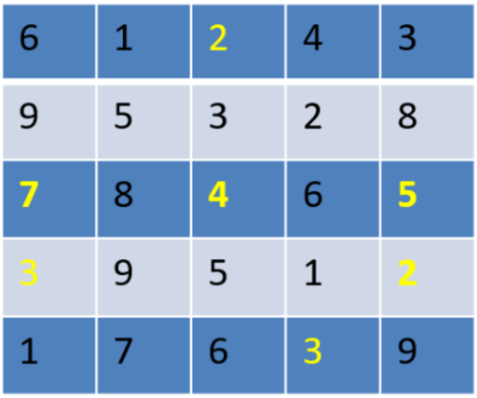
Total number of Physics major from all locations = 225
... Total number of students = 225/0.18=1250

Students from Chennai = 12% * 1250 = 150
Given, number of Physics majors from chennai = 40
... maximum possible number of economic students from chennai = 150-40 = 110
Maximum percentage of students = 110/150*100%=73.33%
Hence, option D

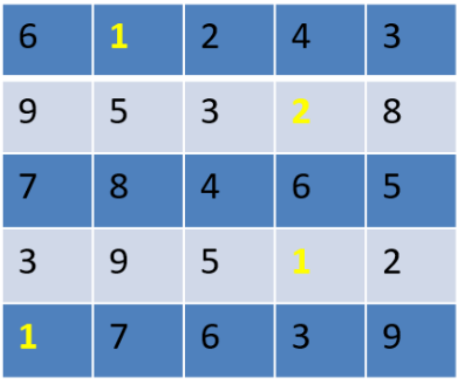
58= SOLUTION[D]=7



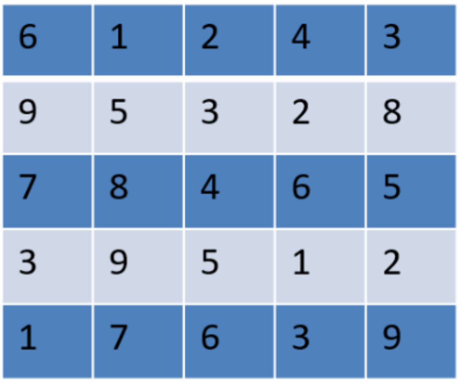
6	1	2	4	3
9	5	3	2	8
7	8	4	6	5
3	9	5	1	2
1	7	6	3	9



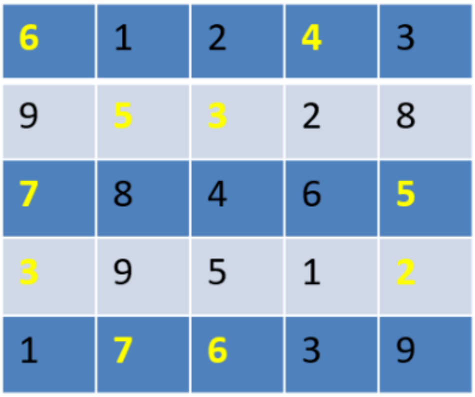
6	1	**2**	4	3
9	5	3	2	8
7	8	**4**	6	**5**
3	9	5	1	**2**
1	7	6	**3**	9



6	**1**	2	4	3
9	5	3	**2**	8
7	8	4	6	5
3	9	5	**1**	2
1	7	6	3	9

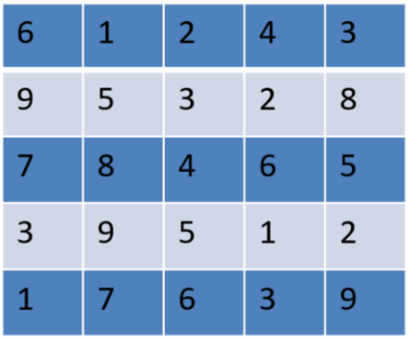


6	1	2	4	3
9	5	3	2	8
7	8	4	6	5
3	9	5	1	2
1	7	6	3	9

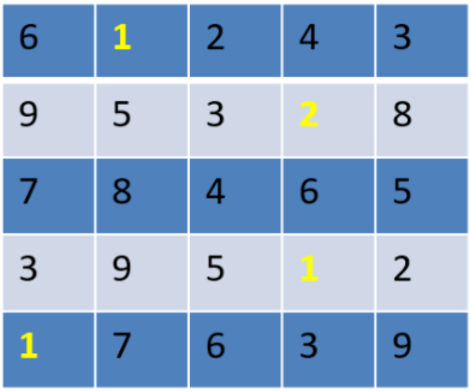


6	1	2	**4**	3
9	**5**	**3**	2	8
7	8	4	6	**5**
3	9	5	1	**2**
1	**7**	**6**	3	9

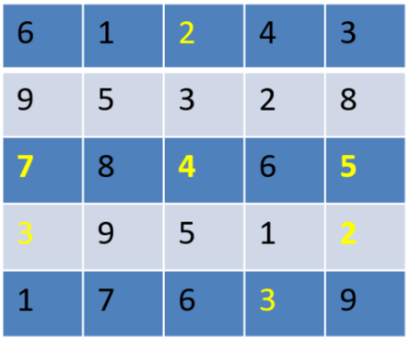
59= SOLUTION[D]



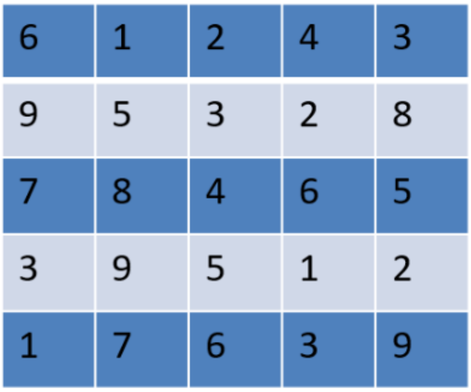
6	1	2	4	3
9	5	3	2	8
7	8	4	6	5
3	9	5	1	2
1	7	6	3	9



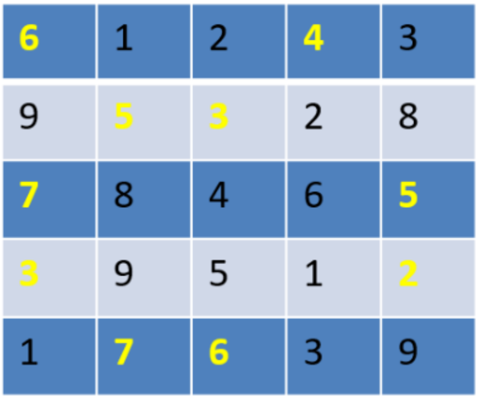
6	**1**	2	4	3
9	5	3	**2**	8
7	8	4	6	5
3	9	5	**1**	2
1	7	6	3	9



6	1	**2**	4	3
9	5	3	2	8
7	8	**4**	6	**5**
3	9	5	1	**2**
1	7	6	**3**	9



6	1	2	4	3
9	5	3	2	8
7	8	4	6	5
3	9	5	1	2
1	7	6	3	9



6	1	2	**4**	3
9	**5**	**3**	2	8
7	8	4	6	**5**
3	9	5	1	**2**
1	**7**	**6**	3	9

0= SOLUTION[E] 90

Let us compute the total asset base = This is Rs. 70 lakhs + Rs. 50 lakhs + Rs. 3*30 lakhs + n (Where number of gold coins is n).

Or, 210 lakhs + n is what the total asset base. This is equally distributed, or n should be a multiple of 3. So, let us rewrite n as 3m. Let us say the total asset base is 210 + 3m. Each child should get 70 + m. The gold coins were also equally distributed. This tells us that each child got m gold coins each. This makes life simple. Now, the non-gold coin part should have been equally distributed. So, each child should have gotten Rs. 70 lakhs worth stuff. What can we infer from here?

So, each child should have gotten Rs. 70 lakhs worth stuff. 1. Whoever gets the house cannot get a flat. Or, the person who gets the house should get Rs. 20 akhs in cash.

2. No one can get all three flats. So, the flats get distributed as 1 and 2 to the wo remaining children. So, one child gets House + Rs. 20 lakhs, one gets one flat plus Rs. 40 lakhs, and the third received two flats and Rs. 10 lakhs. 3. Beyond all this they receive an equal number of gold coins. No one can get all three flats. So, the flats get distributed as 1 and 2 to the two

remaining children. So, one child gets House + Rs. 20 lakhs, one gets one flat

plus Rs. 40 lakhs, and the third received two flats and Rs. 10 lakhs.

Neeta receives 2 flats and Rs. 10 lakhs, Geeta receives one flat and Rs. 40

lakhs and Seeta gets house and Rs. 20 lakhs. The value of the assets were distributed in the ratio of 1:2:3. If we take them as 1x, 2x and 3x, then Total value = x + 2x + 3x = 6x .

If there are " m ^ prime prime gold coins, then the total 210 + m is a multiple of 6. 210 is a multiple of 6. So, m is a multiple of 6=> m = 6a . Also, the gold coins were distributed in the ratio of 2/3 / 4 =>No of gold coins is 2y + 3y + 4y = 9y m = 9y .

m is a multiple of 6 and 9. Therefore, m is a multiple of 18. Hence, m can be expressed as 18k for some k. Now, total value of assets = 210 + 18k This is split in the ratio of 1:2:3 among Neeta, Seeta and Geeta.

Neeta gets =1/6^ * (210 + 18K) = 35 + 3k = (35 - k) + 4k .

Seeta gets =2/6^ * (210 + 18K) = 70 + 6k .

Geeta gets =3/6^ * (210 + 18k) = 105 + 9k = (105 + k) + 8k .

We also know that, One child got all three flats and she did not get the house.

One child, other than Geeta, got Rs. 30 lakh in bank deposits.

One of Seeta and Neeta got Rs. 30 lakh in bank deposits.

30 lakhs. Then the remaining amount she will have is 40 + 6k which is not possible through any combination.

Hence, Neeta gets Rs. 30 lakh in bank deposits. Neeta got totally (35 - k) + 4k worth of assets. So, k = 5 Neeta gets Rs. 30 lakh in bank deposits and 4*5 = 20 gold coins.

Seeta gets one house and Rs. 20 lakh in bank deposits and 30 gold coins. Geeta gets 3 flats and Rs. 20 lakh in bank deposits and 40 gold coins. Therefore, total no. of gold coins = 20 + 30 + 40 = 90 .

The question is "How many gold coins did the old woman have?"

Hence, the answer is "90".

61= SOLUTION[D] 20 L

Let us compute the total asset base = This is Rs. 70 lakhs + Rs. 50 lakhs + Rs. 3 * 30 lakhs + n (Where number of gold coins is n).

Or, 210 lakhs + n is what the total asset base. This is equally distributed, or n should be a multiple of 3. So, let us rewrite n as 3m. Let us say the total asset base is 210 + 3m. Each child should get 70 + m. The gold coins were also equally distributed. This tells us that each child got m gold coins each. This makes life simple. Now, the non-gold coin part should have been equally distributed. So, each child should have gotten Rs. 70 lakhs worth stuff. What can we infer from here?

So, each child should have gotten Rs. 70 lakhs worth stuff. 1. Whoever gets the house cannot get a flat. Or, the person who gets the house should get Rs. 20 akhs in cash.

2. No one can get all three flats. So, the flats get distributed as 1 and 2 to the two remaining children. So, one child gets House + Rs. 20 lakhs, one gets one flat plus Rs. 40 lakhs, and the third received two flats and Rs. 10 lakhs.

3. Beyond all this they receive an equal number of gold coins.

No one can get all three flats. So, the flats get distributed as 1 and 2 to the two remaining children. So, one child gets House + Rs. 20 lakhs, one gets one flat

plus Rs. 40 lakhs, and the third received two flats and Rs. 10 lakhs.

Neeta receives 2 flats and Rs. 10 lakhs, Geeta receives one flat and Rs. 40

lakhs and Seeta gets house and Rs. 20 lakhs.

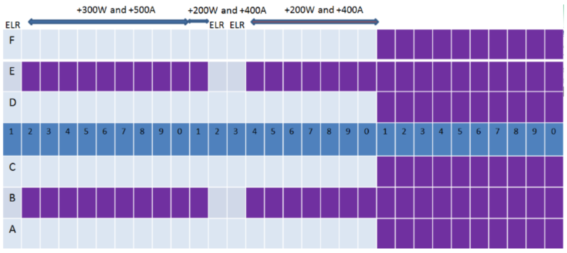
From the stem, it is clear that Seeta receives a house and Rs. 20 lakhs in bank deposits.

The question is "How much did Seeta receive in bank deposits (in lakhs of rupees)?"

Hence, the answer is "20 lakhs".

62= SOLUTION[A]-500

Let us draw a simple diagram and visualize this.



4. Jayanta, Ajit and Byomkesh were sitting in seats marked by the same letter, in consecutive rows in increasing order of row numbers; but all of them paid different amounts for their choices of seat. One of these amounts may be zero. Where should these three be? J, A and B should be in rows 10, 11 and 12 and should be window or aisle seats.

J = Row 10, A = Row 11, B = Row 12. All three aisle or all three window.

6. Prodosh and Tapesh were sitting in seats marked by the same letter, in consecutive rows in increasing order of row numbers; but they paid different amounts for their choices of seat. One of these amounts may be zero.

Where should these two be? They could be in rows 1 and 2, 13 & 14, or 20 & 21. They should be aisle seats if JAB take window. Window seats in JAB take aisle seats.

5. Gargi was sitting next to Kikira, and Manik was sitting next to Jayanta

If seats are adjacent to each other, either they should both be aisle seats or we should have a middle seat involved. So, JAB were aisle seats, then Manik also has to be an aisle seat, and GK have to be window and middle seat. In which case P&T would have window seats

If JAB have window seats, M would have to have a middle seat. GK would have to be two aisle seats and PT would have to take two aisle seats. GK = window and middle seats, PT = two window seats. Possibility 2 = JABM seated in 3 window seats and a middle seat row number 10, 11, 12 and 10

Possibility 1 = JABM Aisle in row number 10, 11, 12 and 10

GK = aisle seats, PT = two aisle seats.

3. Seven of them had to pay extra amounts, totaling to Rs. 4600, for their choices of seat. One of them did not pay any additional amount for his/her choice of seat.

4600 across 7 members. This is a lot of extra money. There has to be at least one Rs. 1000 extra. This leaves 3600 across 6 members. An average of Rs. 600

extra per person. This is also high. This tells us that there should have been two folks paying Rs. 1000 extra. So, we have Rs. 1000, Rs. 1000 and Rs. 2600 distributed across 5 people. This also averages out to more than Rs. 500. This tells us that we should have had 3 people paying Rs. 1000 extra. So, we have Rs. 1000, Rs. 1000, Rs, 1000 and Rs. 1600 across 4 people. So, we could have someone sitting in rows 1, 12 and 13. We also have folks in 10 and 11.

5. Gargi was sitting next to Kikira, and Manik was sitting next to Jayanta.

Possibility 1 = JABM Aisle in row number 10, 11, 12 and 10 GK = window and middle seats, PT = two window seats. Extra charge for JABM = 500+400+1000+500 = 2400 3out of the other 4 should give 2200 - this should be 1000 + 1000 + 200. Or, GK could be Rs. 1000 seats in, row 13 or row 1. and PT could have window seats in rows 20 and 21.

Possibility 2 = JABM seated in 3 window seats and a middle seat row number 10, 11, 12 and 10 GK = aisle seats, PT = two aisle seats.

Extra charge for JABM = 300+200+1000+0 = 1500

The other 4 should add up to 3100. This should be as 1000 + 1000 + remaining. The remaining two cannot add up to 1100. So, this possibility can be eliminated.

Final State

JABM Aisle in row number 10, 11, 12 and 10 GK = window and middle seats in row 1 or row 13

PT = two window seats in rows 20 and 21.

Extra charge for JABM = 500+400+1000+500 = 2400

Extra charge for G and K = 1000 + 1000 = 2000 Extra charge for P and T = Rs. 200 + 0.

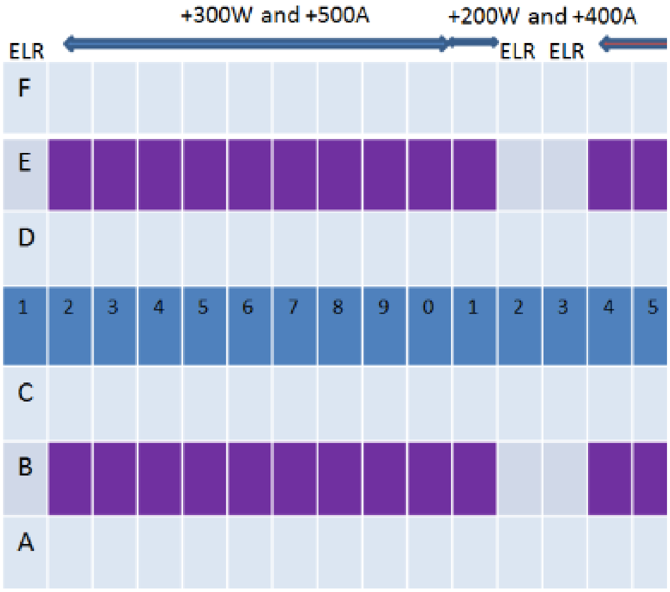
Jayant sat in Aisle of row 10. So, he should have paid an extra Rs. 500.

The question is "How much extra did Jayanta pay for his choice of seat?"

Hence, the answer is "Rs.500".

63= SOLUTION[B] TAPESH

Let us draw a simple diagram and visualize this.



. Jayanta, Ajit and Byomkesh were sitting in seats marked by the same letter, in consecutive rows in increasing order of row numbers; but all of them paid different amounts for their choices of seat. One of these amounts may be zero.

Where should these three be? J, A and B should be in rows 10, 11 and 12 and should be window or aisle seats.

J = Row 10, A = Row 11, B = Row 12. All three aisle or all three window.

6. Prodosh and Tapesh were sitting in seats marked by the same letter, in consecutive rows in increasing order of row numbers; but they paid different amounts for their choices of seat. One of these amounts may be zero.

Where should these two be? They could be in rows 1 and 2, 13 & 14, or 20 & 21. They should be aisle seats if JAB take window. Window seats in JAB take aisle seats.

5. Gargi was sitting next to Kikira, and Manik was sitting next to Jayanta.

If seats are adjacent to each other, either they should both be aisle seats or we

should have a middle seat involved. So, JAB were aisle seats, then Manik also has to be an aisle seat, and GK have to be window and middle seat. In which case P&T would have window seats

If JAB have window seats, M would have to have a middle seat. GK would have to be two aisle seats and PT would have to take two aisle seats. Possibility 1 = JABM Aisle in row number 10, 11, 12 and 10 GK = window and middle seats, PT = two window seats. Possibility 2 = JABM seated in 3 window seats and a middle seat row number 10, 11, 12 and 10

GK = aisle seats, PT = two aisle seats.

3. Seven of them had to pay extra amounts, totaling to Rs. 4600, for their choices of seat. One of them did not pay any additional amount for his/her choice of seat.

4600 across 7 members. This is a lot of extra money. There has to be at least one Rs. 1000 extra. This leaves 3600 across 6 members. An average of Rs. 600 extra per person. This is also high. This tells us that there should have been two folks paying Rs. 1000 extra. So, we have Rs. 1000, Rs. 1000 and Rs. 2600 distributed across 5 people. This also averages out to more than Rs. 500. This tells us that we should have had 3 people paying Rs. 1000 extra. So, we have Rs. 1000, Rs. 1000, Rs, 1000 and Rs. 1600 across 4 people. So, we could have someone sitting in rows 1, 12 and 13. We also have folks in 10 and 11.

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Extra charge for JABM = 300+200+1000+0 = 1500

The other 4 should add up to 3100. This should be as 1000 + 1000 +

remaining. The remaining two cannot add up to 1100. So, this possibility can be eliminated.

Final State JABM Aisle in row number 10, 11, 12 and 10 GK = window and middle seats in row 1 or row 13

PT = two window seats in rows 20 and 21.

Extra charge for JABM = 500+400+1000+500 = 2400

Extra charge for G and K = 1000 + 1000 = 2000

Extra charge for P and T = Rs. 200 + 0.

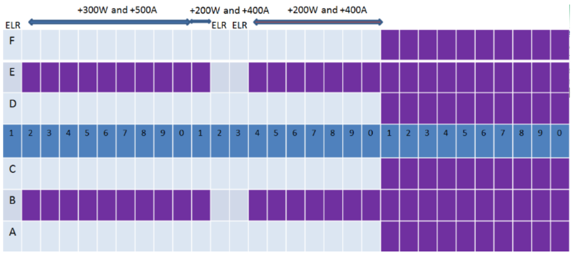
G and K sat in window and aisle seats of row 1 or 13. So, an additional amount of Rs. 1000 was paid.

The question is "Who among the following did not pay any extra amount for his/her choice of seat?"

Hence, the answer is "Tapesh".

64= SOLUTION-[B] 10

Let us draw a simple diagram and visualize this.



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Where should these three be? J, A and B should be in rows 10, 11 and 12 and should be window or aisle seats.

J = Row 10, A = Row 11, B = Row 12. All three aisle or all three window.

6. Prodosh and Tapesh were sitting in seats marked by the same letter, in consecutive rows in increasing order of row numbers; but they paid different amounts for their choices of seat. One of these amounts may be zero.

Where should these two be? They could be in rows 1 and 2, 13 & 14, or 20 & 21. They should be aisle seats if JAB take window. Window seats in JAB take aisle seats.

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The other 4 should add up to 3100. This should be as 1000 + 1000 +

remaining. The remaining two cannot add up to 1100. So, this possibility can be eliminated.

Final State JABM Aisle in row number 10, 11, 12 and 10 GK = window and middle seats in row 1 or row 13

PT = two window seats in rows 20 and 21.

Extra charge for JABM = 500+400+1000+500 = 2400

Extra charge for G and K = 1000 + 1000 = 2000

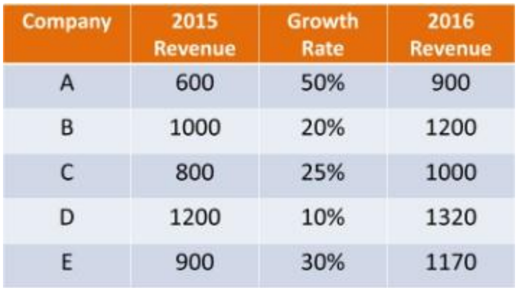
Extra charge for P and T = Rs. 200 + 0.

Manik sat in Aisle of row 10

65= a)A

b)D
c)C
d)E
e)B

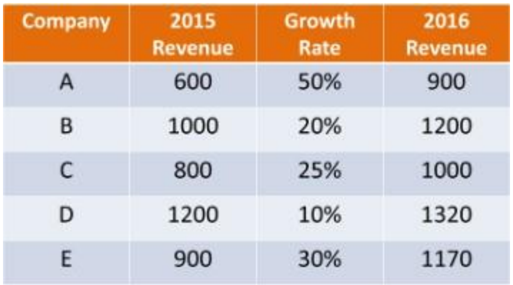
SOLUTION[A] – A



Company	2015 Revenue	Growth Rate	2016 Revenue
A	600	50%	900
B	1000	20%	1200
C	800	25%	1000
D	1200	10%	1320
E	900	30%	1170

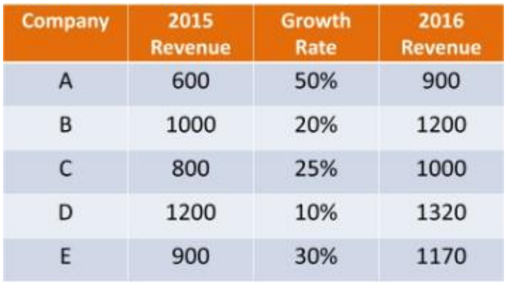
Company A added Rs. 300 crores, the maximum addition in absolute terms

66=
SOLUTION [D] COMPANY C



Company	2015 Revenue	Growth Rate	2016 Revenue
A	600	50%	900
B	1000	20%	1200
C	800	25%	1000
D	1200	10%	1320
E	900	30%	1170

67= SOLUTION [C] 24.2%



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C	800	25%	1000
D	1200	10%	1320
E	900	30%	1170

68= SOLUTION[C]
15

69= SOLUTION[B] 6

Some simple inferences

1. No one has got any 8 or 0.
2. Score of 3 is the most frequent, scores of 4 and 5 come right after that

Now, let us look at some of the constraints

Total adding up to 7 - this can be {1, 1, 5), (1, 2, 4), (1, 3, 3), (2, 2, 3} in some order.

A and C get identical scores. So, if one gets {1, 1, 5), the other also should have got {1, 1, 5}.

We do not even have four 1's, so {1, 1, 5} is ruled out.

We have 1 two from F, and 3 twos from C. So, we cannot have {2, 2, 3} either.

Both A and C could have got a 2 with C, but they both could not have gotten a score of 2 with F.

Both {1, 2, 4} and {1, 3, 3} are possible.

Only F = 1 is possible. Only C = 2 is possible. So, more specifically, we have two possibilities

Country	S	F	C
A	4	1	2
C	4	1	2

Country	S	F	C
A	3	1	3
C	3	1	3

Total adding up to 17 - this can be {7, 6, 4}, {7, 5, 5} or {6, 6, 5} in some order.

Z cannot be (7, 5, 5}.

Why not? Think about this

Only S and F have scores of 7 and 5. There is no C score or 7 or 5. So, Z has to be either (7, 6, 4} or {6, 6, 5}.

Z has to be either {7, 6, 4} or {6, 6, 5). One Country should have scored highest in S, one in F and one in C. All three totals add up to 14 or more.

Let us call the three as happy Countries as Z, T1, T2 and build possible scenarios.

Let us start with Z = \{7, 6, 4\} In this case, Z should have scored the highest in S or F. So some other Country should have scored the highest in C. So, some other Country gets C = 6, Z should get S = 6 So, Z should have got F = 7

Let us start with Z = \{7, 6, 4\} In this case, Z should have scored the highest in S or F. So some other Country should have scored the highest in C. So, some other Country gets C = 6, Z should get S = 6 So, Z should have got F = 7. T1 should have S = 7 and T2 should have C = 6

Country	S	F	C
Z	6	7	4
T1	7		
T2			6

Alternatively Z = \{6, 6, 5\} In this case, Z should have scored the highest in C. So the other two Countries should have scored the highest in S and F. Both these Tables appear possible.

Country	S	F	C
Z	6	5	6
T1	7		
T2		7	

Incorporating all possibilities

Country	S	F	C
A	4	1	2
C	4	1	2

Country	S	F	C
A	3	1	3
C	3	1	3

Country	S	F	C
Z	6	7	4
T1	7		
T2			6

Country	S	F	C
Z	6	5	6
T1	7		
T2		7	

Zooma scored 6 in S in both cases

70= SOLUTION[B] POLBERG

Last Stand = 65 Inches = Forest.
Mile City 27 Inches Coast.
New Town = Mountain = 32 Inches.
Olliopolis = 44 Inches = Valley.
Polberg 12 Inches = Desert.
12 inches.
27 inches.

32 inches.
44 inches.
65 inches.

71= SOLUTION=[D] -27

Last Stand = 65 Inches = Forest.
Mile City 27 Inches Coast.
New Town = Mountain = 32 Inches.
Olliopolis = 44 Inches = Valley.
Polberg 12 Inches = Desert.
12 inches.
27 inches.
32 inches.
44 inches.
65 inches.

72= SOLUTION[E] – OLLOPOLIS

Last Stand = 65 Inches = Forest.
Mile City 27 Inches Coast.
New Town = Mountain = 32 Inches.
Olliopolis = 44 Inches = Valley.
Polberg 12 Inches = Desert.
12 inches.
27 inches.
32 inches.
44 inches.
65 inches.

73= SOLUTION-[E] LAST STAND

Last Stand = 65 Inches = Forest.
Mile City 27 Inches Coast.
New Town = Mountain = 32 Inches.
Olliopolis = 44 Inches = Valley.
Polberg 12 Inches = Desert.
12 inches.
27 inches.
32 inches.
44 inches.
65 inches.

74= SOLUTION[B]- MONDAY

Dusting is on Tuesday, sweeping is on Wednesday, mopping is on Thursday, and laundry is on Friday. Therefore, the vacuuming is done on Monday

75= SOLUTION-[C] [SWEEPING]

Terry does not dust, mop, do laundry, or vacuum. Therefore, Terry does the sweeping on Wednesday

76= SOLUTION- C

77= SOLUTION-D

78= SOLUTION-D

79= SOLUTION-A

80= SOLUTION-D

81= SOLUTION-E

82= SOLUTION-D

83= SOLUTION-B

84= SOLUTION- B

85= SOLUTION-B

86= SOLUTION-A

87= SOLUTION-D

88= SOLUTION-A

89= SOLUTION-C

90= SOLUTION-A

91= SOLUTION-C

92= SOLUTION-C

93= SOLUTION-A

94= SOLUTION-A

95= SOLUTION-C

96= SOLUTION-A

97= SOLUTION-A

98= SOLUTION-B

99= SOLUTION-B

100= SOLUTION-B

101=SOLUTION[B]- Alright, let's simplify it.

Given:
Length of the room (l) = 15 meters
Breadth of the room (b) = 12 meters

We need to find the volume of the hall.

To simplify, let's just focus on the equation representing the problem:

The sum of the areas of the floor and the ceiling of the room is equal to the sum of the areas of four walls.

Mathematically, this can be represented as:

$$2lb = 2lh + 2bh$$

Now, we solve for h, the height of the room.

$$2lb = 2lh + 2bh$$
$$2(15)(12) = 2(15)h + 2(12)h$$
$$360 = 30h + 24h$$
$$360 = 54h$$
$$h = \frac{360}{54}$$
$$h = \frac{60}{9}$$
$$h = 6.67$$

Once we have the height (h), we can find the volume (V) of the room:

$$V = lbh$$
$$V = (15)(12)(6.67)$$
$$V \approx 1200$$

So, the volume of the room is approximately 1200 cubic meters

102= SOLUTION[E]-
To find the arithmetic mean of all the distinct numbers that can be obtained by rearranging the digits in 1421,we first need to determine all the possible permutations of the digits.Then,we'll calculate the sum of these permutations and divide by the total number of permutations to find the mean.
The number 1421 has 4 distinct digits:1,2,4, and 2(repeated).
Total number of permutations=4!2!2!4!(since '2' is repeated)=12
Now, let's list all the distinct permutations:
1241
1214
1421
1412
2141
2114
2411
2411
4121
4112
4211
4211
Now,calculate the sum of these permutations:
Sum=1241+1214+1421+1412+2141+2114+2411+2411+4121+4112+4211+4211=27170
Finally,calculate the mean:
Mean=�������� ������ �� �� ����������*Total number of permutation sSum*
= 27170121227170≈ 2264.167
The closest option to this mean is:b. 2222
So,the correct answer is (b) 2222.

103=SOLUTION[A]- Given, CE = 0.5 BC = 1.3 and ED = 2.5
Triangle CEB is a right-angled triangle => EB = 1.2
Triangles ECB is similar to triangle EDA
EB / E * C =AE/ED Rightarrow AE=6
Hence total distance travelled = AB + BC + CD = 7.2 + 1.3 + 3.5 = 11.5km

104= SOLUTION[A]- AB=$\surd 300^2+400^2-500$

AREA OF THE POOL=$^{X[}500^{2]}$/4 =62500 P

105= SOLUTION[b]-5 MINUTES

106= SOLUTION[E]-

Mean of the six numbers = 15

So, the sum of the numbers = 15*6 = 90

As the median is 18, the mean of middle two numbers must be 18 and thus, their sum must be 36.

Also, the mode is a number less than 18. So, the mode must be appearing as the first and the second number of the six given integers, when arranged in ascending order. To maximize the largest integers,

the mode must be equal to 1.

Therefore, out of the six integers, two are 1 and 1.

For the middle two numbers whose sum is 36, we cannot have 18 and 18 because then we will have two modes which is inappropriate as per the question.

So, the middle numbers must be 17 and 19.

The fifth integer can be 20.

Maximum possible value of the largest integer = 90-(1+1+17+19+20) = 32

Hence, option E is the correct answer.

107= SOLUTION[A]-

To find the sum of the lengths of the diagonals of a rhombus, we need to first find the length of one of the diagonals. Let's assume the length of one diagonal is 'd' and the other diagonal is 'D'.

Given that the perimeter of the rhombus is 56 cm, we can use the formula for the perimeter of a rhombus: 4s, where 's' is the side length of the rhombus.

S * 0.4s = 56cm

=> s = 56cm / 4

=> s = 14cm

Since the area of the rhombus is given as 100 sq cm, we can use the formula for the area of a rhombus: (d ^ * D)/2

Given that the area is 100 sq cm, we have: 100 = (d*D)/2 => d D = 200

Now, we have two equations:

1. s = 14 cm
2. d D = 200

To find the lengths of the diagonals, let's consider the possible pairs of factors of 200:

1,200
2, 100
4,50
5,40
8,25
10,20

Since the diagonals of a rhombus intersect at right angles, the lengths of the diagonals must be perpendicular bisectors of each other. Therefore, the lengths of the diagonals must be equal.

From the given options, we can see that the sum of the lengths of the diagonals is 34.40 cm (option B), which corresponds to the pair of factors 4 and 50.

Hence, the correct answer is option A: 34.40 cm.

108= SOLUTION[E]-

bc = 96

c < 9

Possible factors can be 48*2,32*3,24*4, 16 * 6 ,12*8

ab = 432

Possible factors can be (closest observation 9 * 48 ,18*24

From the above

a = 18
b = 24
c = 4

So, a + b + c = 46

.. The smallest value can be 46

109= SOLUTION[C]-

We will try to maximize the value of the angle ACD:

For a fixed triangle ABC, the angle ACD can be maximized when we take the median CD to be perpendicular to AB and the value of AC is as small as possible, so that the sine of angle ACD, and hence, the angle ACD itself if maximized, as the value of AD is fixed at half of AB at 0.5.

Now, the least possible value of AC is 2. The triangle will be of sides (1,2,2).

Value of sin(ACD)=5 = 0.25

Z ACD = -1 sin (0,25) = 14.78 ≈ 15

110= SOLUTION[A]-

As, x, y and z are in geometric progress

$y / x = z / y = r$

$z / (xr) = r$

$z / x = r ^ 2$.

Then,

5x, 16y and 12z are in arithmetic progr

$16y - 5x = 12z - 16y$

$32y = 5x + 12z$

$5x - 32y + 12z = 0$

Divide by x,

$5 - 32y / x + 12z / x = 0$

$12r ^ 2 - 32r + 5 = 0$

$12r ^ 2 - 30r - 2r + 5 = 0$

$6r(2r - 5) - (2r - 5) = 0$

$(6r - 1)(2r - 5) = 0$

$r = 1/6$ or $r = 5/2$

But, $x < y < z$

$1 < y / x < z / x = 1 < r < r ^ 2$

ove condition is holds true for r = 5/2 only, so r = 5/2

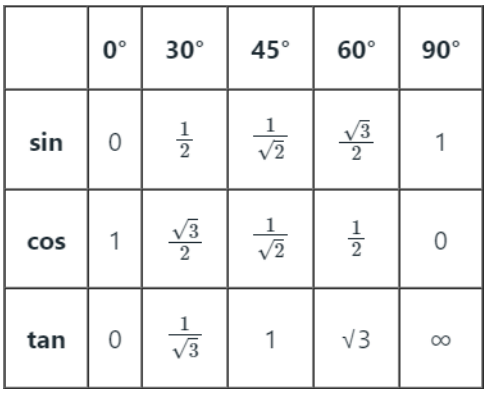
Common ratio of geometric progression is 5/2

111= SOLUTION[E]- Given:

It takes 20 minutes for the angle of depression to change from 30° to 60°.

Concept Used:

Values of Trigonometric Ratios for Common Angles:



	0°	30°	45°	60°	90°
sin	0	$\frac{1}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{\sqrt{3}}{2}$	1
cos	1	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{1}{2}$	0
tan	0	$\frac{1}{\sqrt{3}}$	1	√3	∞

Let AB be the tower and C1, C2 be the positions of the car

In ΔABC1, AB = BC_1 tan 30 deg = (B*C_{2} + C_{2}*C_{1}) * 1/(sqrt(3))

Also, in ΔABC2, AB = BC2 tan 60 deg = sqrt(3) * B*C_{2}

From (1) and (2), we get:

3B*C_{2} = B*C_{2} + C_{2}*C_{1}

C_{2}*C_{1} = 2B*C_{2}

C_{2}*C_{1} / B * C_{2} = 2/1

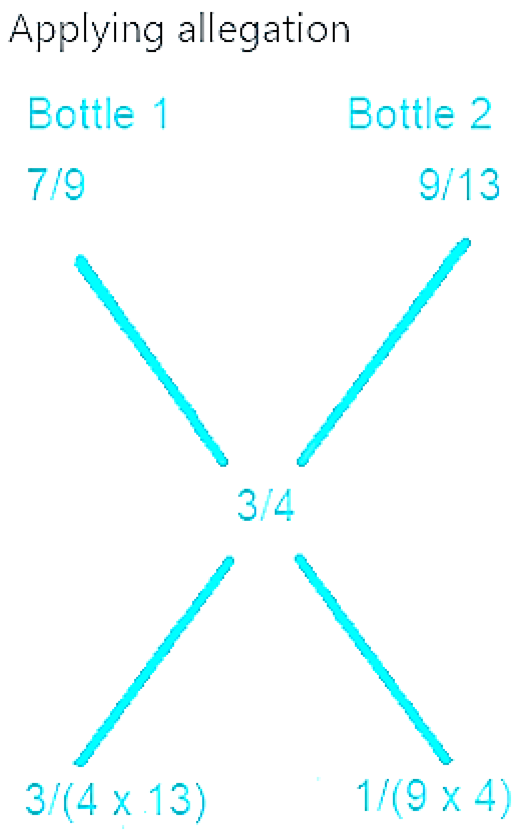
So, if the car takes 20 minutes to cover C_2C_1, it will take 10 minutes to cover BC2

112= SOLUTION[B]

The concentration of milk in bottle 1 = 7/9

The concentration of milk in bottle 2 = 9/13

The concentration of milk we require in mixture = ¾



Ratio = 27/13
Bottle 1 and Bottle 2 should be combined in the ratio of 27: 13

113= SOLUTION[C]-
Hence, (x) (40 - x) + (x) (30 - x) + x2
= 1200 - [(x) (40 - x) + (x) (30 - x) + x2]
2 [(x) (40 - x) + (x) (30 - x) + x2] = 1200
40x - x2 + 30x - x2+x2 = 600
−x2 + 70x - 600 = 0
x2 - 70x + 600 = 0
(x - 60) (x - 10) = 0
x = 10 or 60.
As x must be less than 30.
∴ x = 10

114= SOLUTION[B]

Using Fermat's theorem:
If p is a prime number and a, p are co primes (ap-1) mod p = 1
Remainder when 1920 is divided by 7 = 192 mod 7=4. (Here 19 ^ 20 = ((19) ^ 6) ^ 3 * (19) ^ 2 Since the remainder for 196 is 1 the remainder for 1920 is equivalent to the 192 = 4.
Remainder when 2019 is divided by 7 = 20^1 mod 7 =6.(Here 20 the remainder is 1 and since
20 ^ 19 = (20 ^ 6) ^ 3 * (20) ^ 1 = (1 * 20)/7 The remainder is 6.
Remainder when 1920-2019 is divided by 7-4-6=-2=> 5.

115= SOLUTION[B]

116= SOLUTION[E]-

Using the concept of similar triangles,
triangle APB = triangle AOD ,AP / A * O = PB / O * D OD = 3PB
So, from the formula for the volume of a cone,
Volume = $(1/3)\pi r^2 h$
If the radius of the smaller cone is r cm, then the radius of the larger cone is 3r cm.
$V_{\text{smaller cone}} = (1/3) \times \pi \times r^2 \times 9 = 3\pi\iota^2$
Similarly, $V_{\text{larger cone}} = (1/3) \times \pi \times (3r)2 \times 27 = 81\pi r^2$
Hence, the volume of the frustum CBDE = $(81 – 3)\pi\iota^2 = 78\pi\iota^2$
Hence, 225 = (78 - 3) * pi * r ^ 2 = 75pi * r ^ 2
Pi * r ^ 2 = 225/75 = 3
r= sqrt (3 / pi) * cm So, the radius of the larger (original) cone: Rightarrow 3r = 3sqrt(3 / Pi) * cm
.. The volume of the original cone = (1/3) × × [3 × (3/π)]2 × 27 = 243 cm^3

117= SOLUTION-[B]-6

118= SOLUTION[D]- Area of the wet surface = [2(lb + bh + lh) - lb] = 2 (24 + 5 + 7.5) - 24 = 49 m2

119=SOLUTION[B]
The minimum number of coins with A, B, and C put together would be **174**.
Step-by-step explanation:
Let the number of coins A, B, and C have $a, b, andc$ respectively.
- Then, Seven times a = Five times b

7a = 5b
$a = \frac{5}{7} \times b$

- Now, Six times b = Eleven times c

6b = 11c

$c = \frac{6}{11}$

- Now, the total number of coins = a+b+c

Substituting the values of a and c from above, we obtain

- The total number of coins

$$= a + b + c$$
$$= (\frac{5}{7} \times b) + b + (\frac{6}{11} \times b)$$
$$= \frac{55b + 77b + 42b}{77}$$
$$= \frac{174b}{77}$$

Thus, if b has 77 coins, then the total number of coins would become 174

120=SOLUTION[E]

121= SOLUTION[A]-

Let M∩P=α
Only P=β
Only C=γ, then
α+β+γ+16=60
⇒α+β+γ=44
Also β+γ>α+16
Now, possibilities of ′γ′→
(i) If γ=0, then α+β=44
And β>α+16
Here, (α,β)=(1,43),(2,42),(3,41),⋯,(13,31)

(ii) If γ=44, then α+β=0
⇒α=β=0 this is also possible
∴ Range of γ=[0,44]

122= SOLUTION[E]

123= SOLUTION[B]

The four digit even numbers will be of form:

1100, 1122, 1144 ... 1188, 2200, 2222, 2244 ... 9900, 9922, 9944, 9966, 9988

Their sum 'S' will be

(1100+1100+22+1100+44+1100+66+1100+88)+
(2200+2200+22+2200+44+...) .... +(9900+9900+22 +9900+44+9900+66+9900+88)

=>
S=1100*5+(22+44+66+88)+2200*5+(22+44+66+88)....+9900*5+(22+44+66+88)
=> S=5*1100(1+2+3+ .. 9)+9(22+44+66+88)
=>S=5*1100*9*10/2 + 9*11*20
Total number of numbers are 9*5=45
.. Mean will be S/45 = 5*1100+44-5544

124= SOLUTION[A]-

This question requires a good deal of visualization. Since, both the box and cans are hard solids, simply dividing the volume won’t work because the shape can’t be deformed.

Each cylindrical can has a diameter of 14 cm and while they are kept erect in the box will occupy height of 30 cm

Number of such cans that can be placed in a row
= lDiameter��������� = 76147614
= 5 (Remaining space will be vacant)

Number of such rows that can be placed
= WidthDiameter����ℎ��������
= 46144614 = 3

Thus 5 * 3 = 15 cans can be placed in an erect position.

However, height of box = 45cm and only 30 cm has been utilized so far

Remaining height = 15 cm > 14 cm (Diameter of the can)

So, some cans can be placed horizontally on the base.

Number of cans in horizontal row
= LengthofboxHeightofcan �����ℎ���
������ℎ������ = 76307630 = 2

Number of such rows
= WidthofboxDiameterofcan ����ℎ���
��������������� = 46144614
= 3

∴ 2 * 3 = 6 cans can be placed horizontally
∴ Maximum number of cans = 15+6 = 21

The question is **"What is the maximum number of cans that can fit in the box?"**

Hence, the answer is 21.

125= SOLUTION[E]

(20×16) woman can complete the work in 1 day
∴ 1 woman's 1 day's work =1/320
(16×15) men can complete the work in 1 day
∴ 1 man's days's work =1/240
So, required ratio =1/24:1/320=4:3

126= SOLUTION[C]-

Speed of train relative to man = (60 + 6) km/hr = 66 km/hr.
[66*(5/18)] m/sec = (55/3) m/sec
Time taken to pass the man = [110*(3/55)]m/sec = 6 sec.

127= SOLUTION[B]-10

PQ = 6
As PA = 2AS, AS = (1/3) PS = 2. Similarly BS = 2
Area of triangle ABQ
= [PQRS] – [QRB] – [APQ] – [ASB]
= 36 – 12 – 12 – 2 = 10.

128= SOLUTION[C]-

Volume of water displaced = (3 * 2 * 0.01) m ^ 3 = 0.06m ^ 3
Mass of man = Volume of water displaced x Density of water = (0.06 x 1000) kg = 60 kg

129= SOLUTION[E]

Relative speed =(60+90)km/hr=150km/hr=150 ×518m/sec=1253m/sec
Distance covered by the slower train to cross the faster train =(1.1+0.9)km=2km=2000m
The time taken by the slower train to cross the faster train in second =distancespeed=20001253=16 ×3=48 seconds

130= SOLUTION[D]-

Any multiple of 12 must be a multiple of both 4 and 3.
First, let us look at the constraint for a number being a multiple of 3. Sum of the digits should be a multiple of 3. Sum of all numbers from 2 to 7 is 27. So, if we have to drop a digit and still retain a multiple of 3, we should drop either 3 or 6. So, the possible 5 digits are 2, 4, 5, 6, 7 or 2, 3, 4, 5, 7.
when the digits are 2, 4, 5, 6, 7. the last two digits possible for the number to be a multiple of 4 are 24, 64, 52, 72, 56, 76. For each of these combinations, there are 6 different numbers possible. So, with this set of 5 digits we can have 36 different numbers.
When the digits are 2, 3, 4, 5, 7. The last two digits possible for the number to be a multiple of 4 are 32, 52, 72, 24. For each of these combinations, there are 6 different numbers possible. So, with this set of 5 digits we can have 24 different numbers. Thus a total of 60 such numbers can be formed.

131= SOLUTION[C]-
P can complete the work in (128) hrs = 96 hrs
Q can complete the work in (8*10) hrs=80 hrs
Therefore, P's 1 hour work=1/96 and Q's 1 hour work= 1/80

(P+Q)'s 1 hour's work =(1/96) + (1/80) = 11/480. So both P and Q will finish the work in 480/11 hrs Therefore, Number of days of 8 hours each = (480/11) (1/8) = 60/11

132= SOLUTION[D]-

Car of length = 4m
Length of truck = 20m
Speed of truck = 36km / h * r
Formula used:-
(1) Both the car and the truck are traveling in the same direction relati = (S_{1} - S_{2})
(2) Speed (s) = Distance(d) / Time (t)
Calculation:-
Total distance to be covered by the car ' d' = 20 + 4 = 24m
Let the speed of the car be = S_{1}*m / s
Speed of truck S_{2} = 36km / h * r = 10m / s
Speed of truck S_{2} = 36km / h * r = 10m / s
Both the car and the truck are traveling in the same direction and
we know that to overtake the truck, the speed of the car should be more than that of the truck
Relative speed = (S_{1} - S_{2}) , Time = 10s
⇒ Speed (s) = Distance(d) / Time (t)
Rightarrow (S_{1} - S_{2}) = d / t
(S1-10) = 24/10 S_1= 12.4 m/s 1
.: The required answer is 12.4

133= SOLUTION[C]

134= SOLUTION[E]61

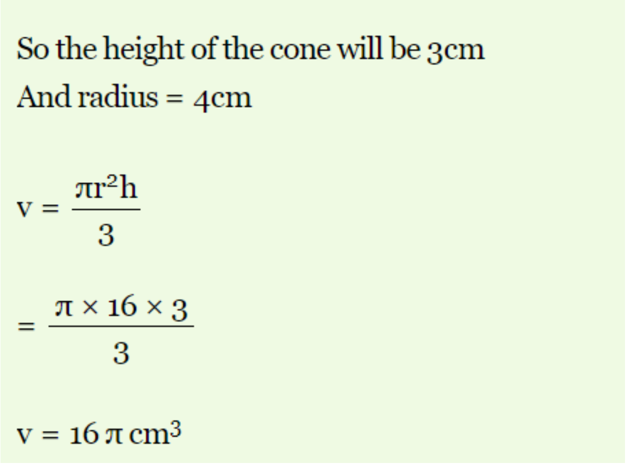
List all multiples of perfect squares (without repeating any number) and subtract this from 99.
4- there are 24 multiples of 4 (4,8,12,. ...96)
9- there are 11 multiples, 2 common with 4 (36 and 72) so, add 9 multiples
160 new multiples
25-3 new multiples (25,50,75)
360 new ones
49249,98}
64-0
81-0
Total multiples of perfect squares are 38. There are 99 numbers in total. So, there are 61 numbers that are not multiples of perfect squares.

135= SOLUTION[C]-480

136= SOLUTION[47]C

All the four friends will meet at the starting point after LCM(60,90,40,80) = 720 seconds.
Number of laps by A in 720 seconds = 12
Number of laps by B in 720 seconds = 8
Number of laps by C in 720 seconds = 18
Number of laps by D in 720 seconds = 9
Together they complete = 47 laps

137= SOLUTION



So the height of the cone will be 3cm
And radius = 4cm

$$v = \frac{\pi r^2 h}{3}$$

$$= \frac{\pi \times 16 \times 3}{3}$$

$$v = 16\pi \text{ cm}^3$$

138= SOLUTION[63]B

139= SOLUTION[B]-12

We have three numbers: x, y and z.
Given:
1. 4x = 3y
2. 6y = 4z
3. x = z - 9
We need to find y.

From equation 1, we can express y in terms of x: y = 4/3 * x

Now, let's substitute this expression for y into equation 2: 6(4/3 * x) = 4z

8x = 4z

2x = z

Now, using equation 3, we find x:

x = z - 9

x = 2x - 9

x = 9

Now, we can find y using 2:

y = 4/3 * (9)

y = 12

So, y = 12

140= SOLUTION[B] 14%

The initial amount of salt in each vessel = 50ml . 110ml 160 ml

100 ml of solution is transferred from A to B A would have 400 ml, B would have 600 ml of solution

Amount of salt from A which is transferred to B = 100 * 1 / 10 Rightarrow 10ml

So, Total salt in B = 110 + 10 = 120 grams (After first transfer)

Total salt in A = 40 grams (After first transfer) Now, 100 ml from Vessel B is transferred to Vessel C

So similarly salt would transfer from B to C = 1/6 * th total salt

Amount of salt from B which is transferred to C = 120 * 1 / 6 Rightarrow 20ml

Total Salt in B = 120 - 20 = 100 grams (After second transfer)

Total Salt in C = 160 + 20 = 180 grams (After second transfer)

Now, 100 ml from Vessel C is transferred to Vessel A

So similarly of salt would transfer from C to A = 1/6 * th total salt Amount of salt from C which is transferred to A = 180 * 1 / 6 ⇒ 30 ml

Total Salt in C = 180 - 30 = 150 grams (After third transfer)

Total Salt in A = 40 + 30 = 70 grams (After third transfer) So, Vessel A contains 70 grams Salt in 500 ml solution

Strength of Salt Solution in Vessel A = 14%

.. The strength in the percentage of the resulting solution in vessel A is 14%

141= SOLUTION[B]

Volume of the large cube = $(3^3 + 4^3 + 5^3)cm^3$ = 216cm3

Let the edge of the large cube be 'a'

So, a^3 =216 a=6 cm

. Required ratio = 6*(3 ^ 2 + 4 ^ 2 + 5 ^ 2 6*6^ 2 = 50 36 =25 :18

142= SOLUTION[C]

Step 1: Find the total number of digits printed in the range 100 to 10,000.

The range contains the following number of digits:

Numbers from 100 to 999 have 3 digits each. There are 900 such numbers. - Numbers from 1000 to 9999 have 4 digits each. There are 9000 such numbers. Number 10,000 has 5 digits.

Therefore, the total number of digits printed is: 900 x 3 + 9000 x 4 + 5 = 36,305

Step 2: Find the number of times the digit 3 appears in the units place.

Every 10th number (i.e., 100, 110, 120, etc.) has a 3 in the units place. There are 900/10 = 90 such numbers.

Also, the number 3 appears in the units place in every number between 3000 and 3999. There are 1000 such numbers.

Therefore, the total number of times the digit 3 appears in the units place is:

90+1000 = 1090

Step 3: Find the number of times the digit 3 appears in the tens, hundreds, and thousands places.

We can use the same logic as in Step 2 to find the number of times the digit 3 appears in the tens, hundreds, and thousands places. We get:

Tens place: 90 * 10 = 900

- Hundreds place: 90 * 100 = 9000
- Thousands place: 9000

Therefore, the total number of times the digit 3 appears in the tens, hundreds thousands places is:

900 + 9000 + 9000 = 18, 900

Step 4: Find the total number of times the digit 3 appears.

The digit 3 appears in both the units place and either the tens, hundreds, or thousands places. Therefore, the total number of times the digit 3 appears is:

1090 * 3 + 18.9 = 21.96

The correct option is (d) 3980.

143= SOLUTION[D]-12

Work done = 1/Time Or

Work done = Efficiency × Time

Calculation:

A can do a piece of work in 4 hours.

A's 1 day work = 1/4

A and C together can do it in 2 hours.

(A + C)'s 1 day work = 1/2

C' s1 day work = 1/2 - 1/4 = 1/4

B and C together can do it in 3 hours.

(B + C)' s 1 day work = 1/3

B's 1 day work = 1/3 - 1/4 = 1/12

Time taken by B to complete the work = 12 days

.. Time taken by B to complete the work is 12 days.

144= SOLUTION[A]-1.0

1. Initial Purchase by Shopkeeper:

The shopkeeper procures each table at the cost price p.

2. Profit and Loss for Asif and Arif:

Asif buys a table from the shopkeeper at a 20% profit. So, he pays 1.2p for each table.

Arif buys a table from the shopkeeper at a 20% loss. So, he pays 0.8p for each table.

3. Sale by Asif and Arif:

Asif sells his table to Adil at a 30% profit. So, Adil pays 1.3 × 1.2p = 1.56p for the table.

Arif sells his table to Alif at a 30% loss. So, Alif pays 0.7 x 0.8p = 0.56p for the table.

4. Amounts Paid by Adil and Alif:

Amount paid by Adil, denoted as x, is 1.56p.

Amount paid by Alif, denoted as y, is 0.56p.

5. Calculate (x - y)/p:

(x - y) / p = ((1.56p - 0.56p)/p) = (1.56p - 0.56p)/p = (1p)/p = 1

145=

SOLUTION[A]-

Let speed of deer = 5steps/second and speed of tiger = 6 steps/sec

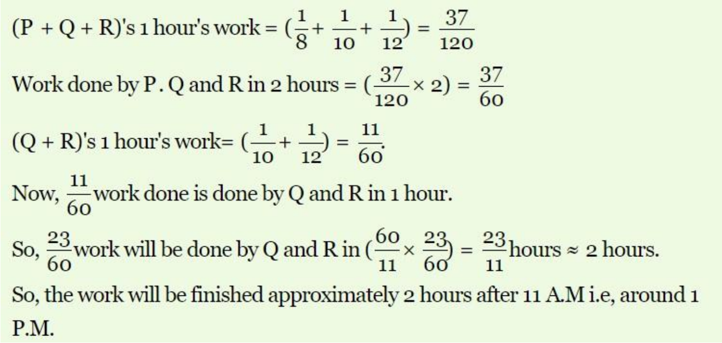
Let deer cover 1 m in a step => tiger covers 2/3 m in a step

Hence speed of deer = 5m / s and spped of tiger = 6 * 2 / 3 * m / s = 4m / s

Hence time taken by a deer to catch tiger = 40 seconds

Distance travelled by deer in 40 seconds = 5 * 40 = 200 steps

146= SOLUTION{C]-1PM



(P + Q + R)'s 1 hour's work = $(\frac{1}{8}+\frac{1}{10}+\frac{1}{12}) = \frac{37}{120}$

Work done by P. Q and R in 2 hours = $(\frac{37}{120}\times 2) = \frac{37}{60}$

(Q + R)'s 1 hour's work= $(\frac{1}{10}+\frac{1}{12}) = \frac{11}{60}$.

Now, $\frac{11}{60}$ work done is done by Q and R in 1 hour.

So, $\frac{23}{60}$ work will be done by Q and R in $(\frac{60}{11}\times\frac{23}{60}) = \frac{23}{11}$ hours ≈ 2 hours.

So, the work will be finished approximately 2 hours after 11 A.M i.e, around 1 P.M.

147= SOLUTION[D] 230

Relative speed = (120 + 80) kmph =(200×5) m/sec =(509m/sec.

Let the length of the other train be ' x' metres.

Then, (x + 270)/9 = 500 9 ⇔ x+270=500 ⇔ x=230.

148= SOLUTION[B]-1

Since x ^ 2 - y ^ 2 = 20 and x, y, z are positive integers,

(x+y)^ * (x - y) = 20 , Hence x - y, x + y are factors of 20.

Since x, y are positive integers, x+y is always positive, and for the product of (x+y)^ * (x - y) to be positiv x-y must be positive.

x, y are positive integers and x-y is positive x must be greater than y.

The possible cases are: (x + y = 10, x - y = 2) (x + y = 5, x - y = 4)

The second case fails because we get x = 9/2 y = 1/2 but x, y are integral values

For case one x = 6 y = 4 y ^ 3 - 2x ^ 2 - 4z >= - 12 Substituting the values of x and y, we have: 64 - 72 -4^ * z>-12 -8-4^ * z >= - 12

z < 1

Since x, y, z are positive integers, the only possible value for z is 1.

149= SOLUTION[E]-9

xz = 12
x,z can be 1, 12 or 2, 6 or 3, 4
Possible triangles
1 - 12 - 12
2 - 6 - 5; 2 - 6 - 6; 2 - 6 - 7
3 - 4 - 2; 3 - 4 - 3; 3 - 4 - 4; 3 - 4 - 5; 3 - 4 - 6.

The question is **"△ABC has integer sides x, y, z such that xz = 12. How many such triangles are possible?"**

Hence, the answer is 9 triangles.

150= SOLUTION[A]-14M

Distance covered in one revolution = (88 * 1000)/1000 = 88m

2 πR=88 ⇒ 2 * 22/7 * R = 88
⇒R = 88 * 7/22 * ½
R = 14m

151= SOLUTON –[a] Androcentric literature structures the reading experience differently depending on the gender of the reader

152= SOLUTION- [E]obese

153= SOLUTION-[A] Word: Affectation :: Meaning: Insincere Pretense

154= SOLUTION- [E] Skateboard

155= SOLUTION-[E]) You had better tell her everything, or else you will lose a friend

156= SOLUTION-[D] Hot tempered

157= SOLUTION[B]- Q,P,R,S

158= SOLUTION[B] indecent

159= SOLUTION[A]3,2,1,4

160= SOLUTION[D]- Historically, arbitrarily, fortuitous

161= SOLUTION[D]1,3,5

162= SOLUTION[B]- Down, as, little, of, out, to

163= SOLUTION [D]-)The craze for excessive fashion should be done away with so as not to not ignore development

164= SOLUTION[A] Otorhinolaryngologist

165= SOLUTION[B]-) Perception, evolved, designed

166= SOLUTION-[C]Clever

167= SOLUTION[b]-4,1,3,2,5

168= SOLUTION[A]-Drunk

169= SOLUTION[C]-4,1,3,2

170= SOLUTION[E]-Q,S,R,P

171= SOLUTION[D]-1,4,3,2

172= SOLUTION[B] stimulating, effective

173= SOLUTION[C]- sensitivity, parody

174= SOLUTION[D]- Logorrhea

175= SOLUTION[C]- mercy is the noblest form of revenge

176= SOLUTION[D]4,3,1,2

177= SOLUTION[B]-80

178= SOLUTION[D]-QSRPT

179=SOLUTION[E]- comes through the interaction with social situations

180= SOLUTION[A]-2,1,3,4

181= SOLUTION[A]- We now have the evidence in support of the existence of an egalitarian urban life in some ancient cities, where political and civic organisation was far less hierarchical

182= SOLUTION[E]- Slaves came from societies in which oaths, orations, and invocations carried great potency, both between people and as a connection to the all-powerful spirit world.

183=SOLUTION[E]- Brutal competition is the only constant in the natural world

184= SOLUTION[B]TYPE OF A BIRD

185= SOLUTION[D]- We should not care about grackles, but us

186= SOLUTION[E] Let's enjoy a moment of peace in this busy life

187= SOLUTION[D]-) Reasonable scepticism is the characteristic of a scientific mind

188= SOLUTION[B]- Everybody wants to stay connected, using cell phones

189= SOLUTION[E]- Because if you carry a cell phone, you have to reply

190= SOLUTION[E]- The presence is felt due to the specificity of the absence

191= SOLUTION[B]- Whenever humans are mentioned, it is men, further, women are not mentioned.

192= SOLUTION[B]- Whenever humans are mentioned, it is men, further, women are not mentioned.

193= SOLUTION[A]- Emphasis on data-based decision making, can be devastating to women, given the gender data gap

194= SOLUTION[A]- "Mechanical" and "life" are words from different logical systems and are, therefore, fundamentally incompatible in meaning

195= SOLUTION[C]- Genetic engineers and bioengineers are the same insofar as they both seek to force evolution in an artificial way

196= SOLUTION[C]- Scientific advances are making it increasingly difficult to distinguish between organic reality and manufactured reality

197= SOLUTION[E]- IT professionals, who eat eggs for breakfast, are more likely to make more money than their counterparts who eat donuts for breakfast

198=SOLUTION[A]- People who like romantic comedies

199= SOLUTION[C]- Refugees symbolize exploitation and abuse of our times

200= SOLUTION[B]- The self adapts to a new geography