Aptitude

Critical Thinking and Computational - Logical Reasoning

Direction: Read the following information and answer the question that follows.

Six friends went out for a coffee break to a doughnut shop and ordered different types of doughnuts and beverages they wished. The cost of each friend's order was different. Following is some more information about their names (one is Shawn), doughnut and beverage (one is Iced Latte) they ordered and its cost:

I. Sam ordered Potato doughnut. The one whose order was Rs. 340 ordered Green tea.
II. Claire paid Rs. 250 but she did not order Hole or Topping doughnut.
III. The person whose order was Rs. 360 ordered Filled doughnut. The friend who ordered Iced coffee had to pay Rs. 280 but he is not Ros and one who ordered Ring doughnut also ordered sweet tea.
IV. Peter did not order Bean paste or Topping doughnut. One who ordered Bean paste doughnut had to pay Rs. 290 but it was not Ros or David.
V. David did not order Iced coffee or Mocha coffee and he did not pay Rs. 320 or Rs. 340.
VI. One who ordered Topping doughnut also ordered Caramel coffee. Peter ordered Green tea.

Q1. Shawn ordered which of the doughnut given in options?
A. Bean paste
B. Ring
C. Topping
D. Hole

Q2. Who ordered Iced coffee?
A. Shawn
B. Sam
C. Ros
D. Claire

Critical Thinking and Computational - Puzzles

Q3. Which of the following will replace the question mark (?) in the following sequence so that it will complete the sequence?

X2C, U3F, Q5J, (?), F11U
A. M9O
B. L9P
C. L7O
D. M7O

Q4. In a certain code language "All boys are good" is coded as cf bt kf db, "All women are beautiful" is coded as bt st db mh, "boys are handsome" is coded as "cf nt db". What is coded as kf in that code?
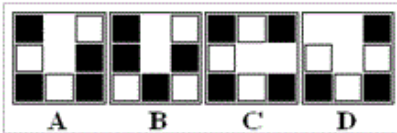
A. women

B. boys

C. beautiful

D. good

Q5. Two clocks are set at 10 a.m., fast clock gains 2 minutes more for every hour. Find the time when the fast clock shows 4 p.m.?

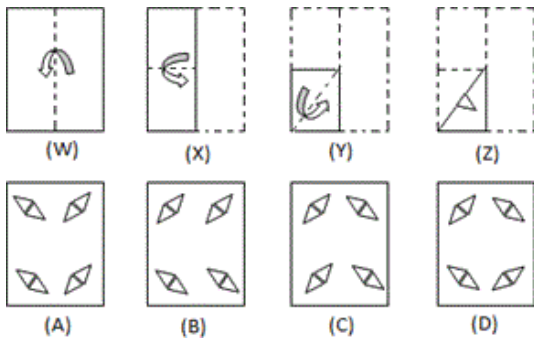**A.** 5.4 hours

B. 5.48 hours

C. 5.8 hours

D. 5:5 hours

Critical Thinking and Computational - Visual Reasoning
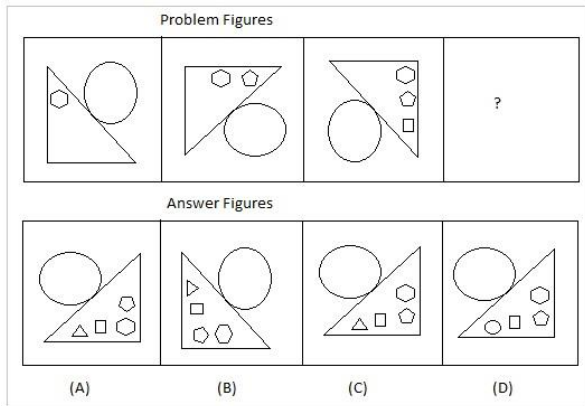
Q6. Which figure is the odd one out?

A. A

B. B

C. C

D. D

Q7. Choose a figure which would most closely resemble the unfolded form of Figure (Z).

A. (A)

B. (B)

C. (C)

D. (D)

Q8. A set of problem figures and answer figures are given below, in problem figure the images are related in some way. Choose the correct figure from the answer figure to complete the series.

A. (A)
B. (B)
C. (C)
D. (D)

Critical Thinking and Computational - Set Theory

Q9. Out of 100 members in a Club, 85 members play Baseball and 50 members play Volleyball. How many members play both - Baseball and Volleyball, if each member plays at least 1 of the given sports?
A. 50
B. 85
C. 35
D. 25

Q10. In a group of 140 children, 66 of them like to eat apple and 97 of them like to eat mango. How many like both, if each of the children likes to eat at least one of the fruit?
A. 28
B. 23
C. 26
D. 19

Quantitative - Math

Q11. A worker makes a basket in 2/3 of an hour. If he works for 15/2 hours, then how many baskets will he make?
A. 43/4
B. 45/4
C. 25/2
D. 13

Q12. A shopkeeper mixes two types of sugars, "crystal sugar" and "nice sugar" in the ratio of 3:1 and he sells the mixture at Rs. 90 per kg at a 20% profit. If "crystal sugar" costs Rs. 20 more than "nice sugar" what is the cost of "crystal sugar"?
A. Rs. 75 per kg
B. Rs. 65 per kg
C. Rs. 70 per kg
D. Rs. 80 per kg

Q13. A train which is 240 m long is running over a bridge of 250 m length, with a speed of 70 m/sec. What is the time taken by this train to cross the bridge?
A. 7 sec
B. 6 sec
C. 5 sec
D. 8 sec

Q14. In an AUTOLITE LTD. Company 200 fans will be manufactured in a day. 15% of the fans were rejected by quality checking team. 10% of the remaining fans were broken during packing. The cost incurred in producing each fan is Rs. 10 and the manufacturer want to make a profit of 10% on the lot at what price he should sell each fan?
A. Rs. 14.38
B. Rs. 18.25
C. Rs. 16.50
D. Rs. 13.66

Quantitative - Data Interpretation
Passage
Directions: Answer the question based on the following table:

The following table shows the net profit and percentage of profit disbursed as dividend of different companies during the given periods.

	Beyond the cheque post			
	Net profit (Rs in crore)		Percentage of profit disbursed as dividend	
	1997 – 1998	1998 - 1999	1997 – 1998	1998 - 1999
L and T	471	531	35	45
IDBI	259	501	45	45
Tata Steel	282	322	40	40
M and M	229	251	55	55
Apollo Tyres	31	41	40	40
Colgate	46	42.5	30	30
Indian Hotels	129	138	85	85
Hoechst Marion	20	37.5	45	40
EIH	96	123	50	50
Bajaj	6	7	38	30
Torrent	36	40	60	50
George W	25	28	60	75

Q15. Which company distributed the highest dividend in 1997 -1998?
A. Bajaj Electricals
B. L and T
C. IDBI
D. M and M

Q16. Which company among the given options has the highest percentage rise in dividend disbursed in 1998 - 1999?
A. Hoechst Marion
B. IDBI
C. L and T
D. Cannot be determined

Quantitative - Probability

Q17. Tickets numbered from 1 to 20 are mixed up together and then a ticket is drawn at random. What is the probability that the ticket has a number which is multiple of 3 or 7?
A. 2 / 5
B. 3 / 7
C. 5 / 7
D. 1 / 5

Q18. A, B and C are three friends working independently on a problem. The probabilities that they will solve it are 0.333, 0.25 and 0.20 respectively, then the probability that at least one can solve it is:
A. 3/5
B. 2/5
C. 13/30
D. 7/12

Quantitative - Permutation and Combination

Q19. In a monthly test, the teacher decides that there will be three questions: one each from Exercises 7, 8 and 9 of the textbooks. There are 12 questions in Exercise 7, 18 in Exercise 8 and 9 in Exercise 9. In how many ways can the three questions be selected?
A. 1944
B. 2094
C. 1894
D. 2194

Q20. A professor has 8 scholars working under him. He takes them 3 at a time to conferences as often as he can without taking the same 3 scholars more than once. The professor will go:
A. 21 times
B. 56 times
C. 45 times
D. 112 times

Coding

Allowed Languages C, C++, Java 8, Python 2, Python 3, C#

Q1. At a restaurant, two types of dishes (A and B) are to be cooked. For this, the restaurant authority wants to hire new chefs. There are few chefs who can prepare only dish A and few others can prepare only dish B. Some chefs (represented as C) can prepare both dish A and dish B. The restaurant kitchen is small, and only one chef can work in the kitchen at a time.

Consider N chefs, available to prepare dish A or dish B or both, along with the time T_i (i = 1,2,3....N) required by i^{th} chef. The restaurant authority can either hire two chefs among N chefs to prepare dish A and B separately, or can hire someone who can cook both A and B.
Write a program to find the minimum time Z required to prepare both of the dishes.
Read the input from STDIN and print the output to STDOUT. Do not write arbitrary strings while reading the input or while printing, as these contribute to the standard output.

Constraints:
I) $N >= 1$
II) $T >= 1$

Input Format:
The first line of input contains N.
Next N lines of input contains a character (A, B or C) and T, separated by a single white space.

Output Format:
The output contains Z.

Sample Input1:
5
A 2
B 5
A 2
C 4
B 3

Sample Output1:
4

Explanation1:
There are 2 chefs who can cook dish A. The time T taken by both of them are 2 and 2. Thus, the minimum time required to prepare dish A is 2.
There are 2 chefs who can cook dish B. The time T taken by both of them are 5 and 3. Thus, the minimum time required to prepare dish B is 3.
Thus, minimum time required to prepare both dish A and B separately is 2+3 = 5.
Now, There is 1 chef who can cook both dish A and B. The time T taken by the person is 4, which is less than time taken to prepare dish A and B separately. Thus, 4 is the output.

Sample Input2:
6
C 8
B 3
A 4
C 10
B 5
A 2

Sample Output2:
5

Explanation 2:
There are 2 chefs who can cook dish A. The time T taken by both of them are 4 and 2. Thus, the minimum time required to prepare dish A is 2.
There are 2 chefs who can cook dish B. The time T taken by both of them are 3 and 5. Thus, the minimum time required to prepare dish B is 3.
Thus, minimum time required to prepare both dish A and B separately is 2+3 = 5.
Now, There are 2 chefs who can cook both dishes A and B. The time T taken by both of them are 8 and 10. Thus, the minimum time required to prepare both dish A and B by chefs of type C is 8, which is more than time taken to prepare dish A and B separately. Thus, 5 is the output.

Q2. Max is on a quest to collect gold coins. He has come across a series of open crates which are filled with gold coins each of varying quantities. He is free to collect the coins from any crate, however as soon as he collects the coins from one crate, the crates before and after that particular crate vanish, which means he can no longer collect the coins from both of those crates.

Given a series of N crates and C numbers of gold coins inside each of them, write a program to help Max collect the maximum number M of gold coins.

Read the input from STDIN (standard input) and write the output to STDOUT (standard output). Do not print any arbitrary strings while reading the input or printing the output as those would contribute to STDOUT.

Constraints:
I) $0 < N < 10^4$
II) $0 <= C < 10^9$

I) The number of crates N, .
II) Number of gold coins in each crate C, $0 \le C \le 10^9$.

Input Format:
The first line of input contains N, the number of crates.
The second line of input contains N numbers separated by a single white space, representing the number of gold coins in each crate.

Output Format:

The output contains *M*, the maximum number of gold coins that Max can collect.

Sample Input1:

5

1 2 3 4 5

Sample Output1:

9

Explanation:

1	2	3	4	5

N=5, The number of gold coins in each crate are: 1, 2, 3, 4 and 5.

If Max collects gold coins from 1st, 3rd and 5th crates, he will get 9 gold coins (1+3+5), which is the maximum number of gold coins he can collect.

The other possible ways are:

1st and 3rd = 1+3 = 4

1st and 4th = 1+4 = 5

1st and 5th = 1+5 = 6

2nd and 4th = 2+4 = 6

2nd and 5th = 2+5 = 7

3rd and 5th = 3+5 = 8

As 9 is the maximum number of gold coins that Max can collect, 9 is the output.

Sample Input2:

6

2 14 5 4 32 8

Sample Output2:

46

Explanation:

2	14	5	4	32	8

N=6, The number of gold coins in each crate are: 2, 14, 5, 4, 32 and 8.

If Max collects gold coins from 2nd and 5th crates, he will get 46 gold coins (14+32), which is the maximum number of gold coins he can collect. Thus, 46 is the output.

WILEY EDGE

Tech Interview

Duration: 15-30 minutes

What we Assess?

- Understating of Java/ Python Concepts
- Understanding in Database Concepts
- Ability to write queries in SQL
- Experience of debugging database queries
- Understanding of core Data Structures & Algorithm
- Live Coding Java/ Python/ C/ C++

Tips to Keep in Mind

This is a live interview conducted by a domain expert.
You could be quizzed on a variety of tech areas listed above to gauge your suitability for a role with Wiley Edge. Speak up and be interactive. It is also important to be honest and open, as this will help us understand your interests and aspirations better.

- Make sure your audio and video are fully functional.
- Take care that you are clearly visible on screen – check lighting, background and personal appearance!
- Be prepared to take up live coding questions where you will be required to share your screen.
- Ensure there are no interruptions as there are no re-attempts.

Automated Interview

Number of Questions: 5

What we Assess?

- Communication Skills
- Aptitude and interest in the field
- Suitability for the role

Tips to Keep in Mind

During the automated video interview, you will be presented a series of questions to help us get to know you and your competencies better. Stay relaxed and give coherent, thoughtful answers.

- You will need to speak out your answers. Make sure your audio and video are fully functional.
- Take care that you are clearly visible on screen – check lighting, background and personal appearance!
- Be mindful of the time limit for each question. Give substantial answers without overshooting time.
- Ensure there are no interruptions as there are no re-attempts.