LRDI CLASS

A couple was confused as to what to name their new born son. So they went to a numerologist and he suggested the following. (A numerologist considers the numerical value of all the alphabets as A=1, B=2, …., and Z=26)

1. It must be a nine lettered name starting with 'R'
2. The letter 'H' must appear in the name twice and there must be at least 3 other alphabets between them
3. The letter 'Z' should not appear in the name
4. Exactly one vowel must be repeated and one third of the letters in the name must be vowels
5. There should be exactly two prime valued consonants in the name
6. Sum of values of all the vowels in the name must be 23
7. The vowels must occupy prime numbered positions in the name and must not be placed next to each other
8. Sum of values of first three letters, middle three letters and last three letters in the name must be 26, 43 and 32 respectively
9. The prime valued consonant must be the third letter in the name

Q1. The couple followed all the conditions in naming their son.
What is the 6th letter in the name?
1) H 2) N 3) S 4) A

Q2. Between which of the following letters and the middle letter of the name are there exactly 2 other letters?
1) A 2) W 3) H 4) G

Q3. What can be the difference in the values of the letters at the 4thand the 9th position?
1) 15 2) 13 3) 10 4) 12

In a sports school. the sports director was considering five energy drinks -A. B. C, D and E available in the market, for providing to the athletes in that school_ The table below gives the composition of carbohydrates, proteins, fats and minerals in the five drinks. The cost per litre of the drinks A, B, C, D and E are Rs.150, Rs.50, Rs.200, Rs.500 and Rs.100 respectively.

Drink	Composition (%)			
	Carbohydrates	Proteins	Fats	Minerals
A	20	30	20	30
B	40	10	30	20
C	10	35	30	25
D	25	20	45	10
E	20	25	15	40

1. A drink containing at least 26% protein and at least 20% carbohydrate is to be prepared. In how many different ways can one prepare such a drink by mixing two of the given drinks?
a) 3 b) 4 c) 5 d) 6

2. What is the least cost per litre incurred if any two of the given drinks are mixed to get a drink containing at least 25% each of carbohydrates and minerals?
a) Rs.57.5 b) Rs.60 c) Rs. 62.50 d) Rs. 70

3. In what proportion should one combine the drinks B and E to prepare a drink containing at least 25% minerals and having the least cost per litre?
a) 1 : 2 b) 2 : 1 c) 1 : 3 d) None of these

In a restaurant 500 customers were served on a day. The manager was analyzing the data for the day. He observed the following. Each customer used either credit card or cash to make payments but not both. Each customer ordered exactly one of the two food items Pizza or Burger. And each of them ordered one of Fruit Juice or Milk Shake but not both. 90 credit card users ordered a Milk shake. There were 270 customers who ordered a Fruit Juice, 50 customers who ordered a Pizza neither paid by credit card nor ordered a fruit juice. 140 customers who paid with credit cards ordered a fruit juice. 150 customer who ordered a fruit juice either paid by credit cards or ordered a pizza but not both. 120 customers who paid by cash did not order a burger. 100 customers who ordered a Burger either paid by Credit card or ordered a Fruit Juice but not both.

Q.1. Find the number of customers who ordered a Milk Shake and paid by Cash?

Q.2. Find the number of customers who paid by Credit Cards, who ordered a Burger but not a Fruit Juice?

Q.3. Find the number of customers who ordered a Pizza and a Fruit Juice?

Q.4. Find the number of customers who ordered a Pizza and either paid by cash or ordered a Fruit Juice but not both?

Q.5. How many customers ordered a Fruit Juice or

Five students, Ankit, Pavan, Kiran, Ranjith and Sravan, enrolled for a test series, which comprised exactly five tests numbered 1701, 1702, 1703, 1704 and 1705, conducted in that order. However, each student wrote exactly four tests and each test was written by exactly four students. Further, it is known that, for any test, the average score of the students who wrote that test was not more than 70.

Student	Test 1	Test 2	Test 3	Test 4
Ankit	50	63	63	80
Pavan	64	51	57	71
Kiran	85	77	68	90
Ranjith	82	68	68	34
Sravan	77	88	65	71

The table below provides the marks scored by each student in the four tests that he wrote. The four tests are labelled Test 1, Test 2, Test 3 and Test 4, which represents the first, second, third and fourth test written by the respective student.

Q1. For any test, what is the minimum total score of the four students who attempted the test?

Q2. Who among the following did not attempt 1705?
a) Pavan   b) Kiran   c) Ankit   d) Ranjith

Q3. Who scored the maximum marks in 1704?
a) Kiran   b) Ankit   c) Pavan   d) Sravan

Q4. Who among the following did not attempt any three consecutive tests out of the five tests?
a) Ankit   b) Pavan   c) Ranjith   d) Kiran

"Three persons, Pip, Trip and Kip, will stand in front of you, in a line, from left to right, not necessarily in the same order. Each person will be wearing a dress of a different colour among Red, Blue and Green. One of them is a truth teller, who always tells the truth, another is a liar, who always lies and another person is an alternator, who always alternates between telling the truth and a lie, in any order.

During the game, starting from the left, each of the three persons will make exactly one statement, after which, starting again from the left, each person will make his second statement and so on. Further, none of the three persons refer to themselves in the first person, i.e., refer to themselves as 'I' or 'me'" After giving these instructions, Bobby was blindfolded and he heard the following nine statements from the three persons in the same order as they are given below:

1. Pip is to the left of Trip.
2. The person to the left of Pip is wearing a Blue dress.
3. The liar is to the immediate right of the truth teller.
4. Trip is wearing a Green dress.
5. Kip is not standing to the right of the person wearing a Green dress.
6. Trip is not wearing a Blue dress.
7. Trip is to the right of Kip.
8. The person wearing a Red dress is the liar.
9. The person standing in the middle is a liar.

Q1. Which of the following statements was made by the liar?
a) Statement (vii)   b) Statement (v)   c) Statement (vi)   d) None of the above

Q2. Who is standing at the extreme left?
a) Truth teller   b) Alternator   c) Liar   d) Cannot be determined

Q3. What is the colour of the dress that the liar is wearing?
a) Green b) Blue   c) Red   d) Cannot be determined

Q4. If, immediately after the nine statements were made, Bobby asked Pip, "What is the colour of the dress that Kip is wearing?", what would have been Pip's reply?
a) Red   b) Blue   c) Green   d) Cannot be determined