VIRTUSA SAMPLE PAPER 2

MATH, REASONING, TECHNICAL

SECTION-1

1.1 2 3 2 5 6 7 8 3 find the next term in the series

2.How can u place 4 coins in 2 lines so that each line should contain 3 coins

3.Find the odd word

A. ALPHA
B. DELTA
C. SIGMA
D. BETA

Ans: Delta

Reason: As it has specific meaning (addition) and others don't have such meaning, just used for representation purpose. (i think so)

4.There was an addition given as follows SATURN + URANUS = PLANETS the solution is not encoding the entire problem but to find coding for 3 alphabets

5.There was a set of words given as follows SUN,MER,VEN,---,...........,SAT,---,NEP,PLU (I don't remember exactly but, all are the names of planets in solar system with notation of each planet using 3 letters) The question was to find out the appropriate words in the given blanks

6.How can u get 81 using the digits 2,3,25,50,75,100 only once using any of the arithmetic operators

Key Steps: 50+(100/75*3)+25+2

7. A man have some three types boxes viz Huge, Large, Small He took 11 of huge boxes and put on a table. And at random he has taken some of them and placed 8 large boxes in each of the boxes. And after that he has placed 8 small boxes in some large boxes at random. By the end if he found 102 boxes empty, how many boxes are there on the table?

8.If u have a large number of Knights and a chess board. The problem is to find the way of arranging the Knights on the board so that no Knight attacks the
other. (He has given mathematical relations that represents how a knight can move on the chess board as we know it as 'L', i'm not giving such stuff)

9.You are given a bunch of threads each having differing length. No two threads have same thickness and no thread has same thickness all its length. But it is certified that any thread when lit burns itself in exactly 12 mins. The question is you are asked to find an elapsed time of 9 minutes. How can u find it

out and how many threads do u want for this?

SECTION 2 (Writing)

The topic to Write was on "Connecting the rivers in India".

SECTION 3

You can write the programs in this section using any programming language

1.There was a pyramid given as follows

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1
2 3
4 5 6
7 8 9 10
11 12 13 ...
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The three dots are given as a part of the specification. The above pyramid is to be printed when input number 13 is given. Write a program to print the above pyramid.

2.Write a function which returns a sub string in the string 'Sigma' (character given) which starts with 'Alpha' and ends with 'Theta'

3.You have a job in which you have to take time stamps and store them. So Write a data structure that can minimize the storage requirements of Year, Month, Date, Hour, Minute.

4.Write a program to find the four digit numbers, which are perfect squares, and all the digits in that number are even.

SECTION-4

1, (SATURN+URANUS=PLANETS) are called cryptorithms or alphabeticalcoding. Where an alphabet is assigned a code so that the problem is to be solved using given summation. Write a program to solve such questions, which prints the letter and its corresponding digit that satisfies the given addition.