

Read the instructions and questions carefully.

Let R be your roll number + 30

$N = R \% 10$ ; if  $(N < 4)$  then  $N += 5$

Write C programs for all the three questions.

Some calculations are to be performed manually as suggested in each question. Such calculations should not be done in program.

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1. Print the number equal to R directly as an integer constant (without using variable names or symbolic constants).

Now using assignment statement set the value of r as a value equal to R directly.

Separate the digits of r as x and y using appropriate C statements.

Print r, x, y.

Perform bit wise operations (i) AND (ii) OR with x and y and print the result.

Compute  $x*4$  using bit wise operation and print the result.

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2. Create a 2D array representing roll number, mark 1, mark 2, mark 3 of N students. Use N calculated as suggested at the beginning of the question paper.

Roll numbers are to be computed starting from 201 consecutively. Marks are to be read using scanf from keyboard input.

Do not read N or roll numbers via scanf.

Print the data with appropriate headings.

- (a) Calculate manually:  $k = R \% 3 + 1$

Print all the details of the students who have scored highest in exam k

- (b) Print all the details of the students who have scored  $\geq 45$  marks in at least one exam

- (c) Calculate manually,  $rn = R \% N + 201$

Print the details and total marks of the student with roll number rn

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3. Write this program without using any conditional or loop statement.

Using gets read your name into a string variable myname.

Determine  $len = \text{length}$  of the input using relevant string function. Print it.

Note this number and calculate manually  $k = len \% 6$

Continue coding... (Write code corresponding to your case only)

- if  $k==0$  Concatenate "My name is: " in front of myname. Then print it using puts.
  - if  $k==1$  Concatenate " : is My name \n" at the end of myname. Then print it using printf.
  - if  $k==2$  Copy myname to another variable and print it using puts.
  - if  $k==3$  Copy myname to another variable and print it using printf.
  - if  $k==4$  Concatenate "My name is: " in front of myname. Then print it using printf.
  - if  $k==5$  Concatenate " : is My name \n" at the end of myname. Then print it using puts.
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