



University of Engineering & Management, Kolkata

Odd Semester Examination, February, 2021

Course: B. Tech

Semester: 1st

Paper Name: Computer Programming and Problem Solving using Python and C - I

Paper Code: ESC181

Full Marks: 100

Time: 3 Hours

Instructions:

1. Students need to answer all questions of the allotted Set.
2. The answers should be written in white papers (preferably A4, but not mandatory).
3. The First page of the answer script must have Students Name, Section, Class Roll, Enrolment Number and Registration Number written at the top.
4. Subsequent pages must have Section and Roll Number written at the top.
5. The entire answer script is needed to be scanned and a single PDF file should be submitted.
6. The file name should be "Section_Roll.pdf" (e.g. A_100.pdf)

Set - 8

1. Write a C program to print the following pattern up to 'n' lines where 'n' is user given:

```
1                1
1      2      2      1
1      2      3      2      1
```

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2. Write a C program to read a user given string of any size of your choice. Consider that the user input contains only alphabets. Convert all the lowercase characters to uppercase. Note that the input may contain uppercase alphabets as well. Do not use 'string.h'.
 3. Write a C program to take two user given matrix each of size 2×3. Now find the addition of the matrices. The program should print a message if the addition is not possible.
 4. Write a C program to declare a one-dimensional integer array of size 'n' where 'n' is user given. Read user given numbers to store in the array. Now check and replace all the elements of the array by the absolute value of individual numbers.