

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

Online End Semester Examination, January 2021

Course: Programming and Data Structure

Program: BCA - IoT & BFSI

Course Code: CSBC 1008

Semester: I

Time 03 hrs.

Max. Marks: 100

SECTION A

1. Each Question carries 5 Marks.

2. Instruction: Attempt all the questions.

S. No.		Marks	CO
Q 1	Write a short note on Stack and Queue.	5	CO4
Q 2	Define Algorithm, Pseudo code and Flow-chart.	5	CO1
Q 3	Explain different types of memory.	5	CO1
Q 4	Compare and contrast between Singly Linked List, Doubly Linked List and Circular Linked List.	5	CO4
Q 5	Write a short note on Sorting.	5	CO5
Q 6	Explain File Handling with example.	5	CO5

SECTION B

1. Each Question carries 10 marks.

2. Instruction: Write short / brief notes.

Q 7	What is Function in C? What are the differences between call by value and call by reference? Explain with suitable example code.	10	CO2
Q 8	Write a program to reverse the entered string without using library function.	10	CO2
Q 9	What are the different Conditional statements in C? Write a program to find the largest of three numbers using nested if..else. (NOTE: user will give the input of three values)	10	CO1
Q 10	What is an Array? Write a program to perform multiplication on 2-D matrices entered through user.	10	CO2
Q 11	What are differences between Structure and Union? WAP to read and display the information of 5 students in the class.	10	CO3

SECTION-C

1. Each Question carries 20 Marks.

2. Instruction: Write long answer.

Q 12	Print the following Pattern using loop 1 1 2 1 1 2 3 2 1 1 2 3 4 3 2 1 1 2 3 4 5 4 3 2 1	20	CO1
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OR

Print the following Pattern using loop

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* * * * *
* * * * *
* * * * *
* * * * *
* * * * *
```