

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Term Examination, December 2021

Course: Object Oriented Programming
Program: B.Tech.
Course Code: CSEG1008

Semester: I
Time 03 hrs.
Max. Marks: 100

Instructions: Attempt all the questions.
In section A, select the correct answer/answers.

SECTION A

S. No.		Marks	CO
Q 1	<pre>#include <iostream> using namespace std; int main() { char c = 74; cout << c; return 0; } a) I b) J c) A d) N</pre>	4	CO1
Q 2	<p>Inheritance in C++ is:</p> <p>a) Deriving new classes from existing classes b) Overloading of classes c) Classes with same names d) Wrapping of data into a single class</p>	4	CO2
Q 3	<p>Which of the following is used to terminate the function declaration in C++?</p> <p>a) ; b)] c)) d) :</p>	4	CO2
Q 4	<p>Which of the following is not a type of Constructor in C++?</p>	4	CO3

	a) Default constructor b) Parameterized constructor c) Copy constructor d) Friend constructor		
Q 5	<pre>#include <iostream> using namespace std; int main () { int a, b, c; a = 2; b = 7; c = (a > b) ? a : b; cout << c; return 0; }</pre> <p>a) 12 b) 14 c) 6 d) 7</p>	4	CO1

SECTION B

Q 6	Write a program in C++ to display the number in reverse order. Further, also present the algorithm and flowchart of the same.	10	CO1
Q 7	Discuss the concept of friend function with suitable example Or Define class and objects. Design a class Student and include data members rollno, name, city and age. Write member functions: i) To accept information of 'n' students ii) To display information of 'n' students	10	CO2
Q 8	Discuss the role of access specifiers in inheritance and show their visibility when they are inherited as public, private and protected.	10	CO3
Q 9	Discuss the concept of constructors in C++ programming. How it is different from functions. Write a C++ code to show the functionality of parameterized constructor.	10	CO3

SECTION-C

Q 10	i) Discuss the concept of exception handling. Write down the scenario where we require user defined exceptions. Provide suitable example. (10 Marks) ii) When do we need multiple catch blocks for a single try block? Give an example. (10 Marks) <p style="text-align: center;">Or</p> Discuss the concept of templates. Write a C++ code of your choice to implement class template. (20 Marks)	20	CO4
Q 11	Discuss the following with suitable example: i) Virtual Functions (10 Marks) ii) Arrays (10 Marks)	20	CO4