

Name:

Enrolment No:



**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End Semester Examination, May 2022**

**Course: Object Oriented Programming**

**Program: B.Tech. non-CSE**

**Course Code: CSEG 1008**

**Semester: II**

**Time : 03 hrs.**

**Max. Marks: 100**

**Instructions: Attempt all questions. Assume any missing data, draw diagrams wherever applicable, provide appropriate examples**

**SECTION A**  
**(5Qx4M=20Marks)**

S. No.		Marks	CO
Q 1.	Explain Logical operators of C++.	4	CO1
Q 2.	What is a function prototype?	4	CO1
Q 3.	Differentiate between while and do-while loop of C++.	4	CO2
Q 4.	Illustrate the significance of <b>public:</b> in C++.	4	CO2
Q 5.	Describe function overloading.	4	CO3

**SECTION B**  
**(4Qx10M= 40 Marks)**

Q 6.	Define the term Problem. Explain the various techniques a problem could be solved with an example. Demonstrate the use of 'private, public and protected' access specifier using C++ code.	10	CO1
Q 7.	Explain the concept of access specifiers. Describe its functioning in terms of inheritance.	10	CO2
Q 8.	Describe a reason for usage of operator overloading in C++.	10	CO3
Q 9.	Explain the concept of exception handling. Justify the reason for its usage.  <b>OR</b>  Demonstrate the usage of constructor and destructor through a C++ program	10	CO4

**SECTION-C**  
**(2Qx20M=40 Marks)**

Q 10.	Write a program to find the average marks of a student by creating a Class <b>Marks</b> with the data members; variable <b>Stu_No</b> , <b>Stu_Name</b> , and marks 5 subjects i.e <b>Science, Maths, English, Hindi</b> and <b>CS</b> . (Note if average marks <40 then grade is "F" average marks >=40 then grade is "Pass"). Implement all the concepts of OOPs that you have learnt. [Hint: Constructor, Scope resolution operator, data members, functions, etc.]	20	CO3
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Q 11.	<p>a. Briefly discuss the features of OOPs in C++.</p> <p>b. Demonstrate the use of scope resolution operator in C++ with a proper syntax.</p> <p style="text-align: center;"><b>OR</b></p> <p>a. Design and implement the program that is able to show the concept of data hiding.</p> <p>b. Explain ambiguity in inheritance through a small C++ program.</p>	<b>20 [10+10]</b>	<b>CO4</b>
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