



KANPUR INSTITUTE OF TECHNOLOGY
(An Autonomous Institute of AKTU, Lucknow)
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EVEN SEM SUMMATIVE EXAM, AY: 2024-25	PROGRAM: B. Tech	ROLLNO:
SUBJECT CODE: CSI2020	BRANCH: CSE, IT, AIML	SECTION: A
SUBJECT NAME: OOPs with C++	SEMESTER: II	FACULTY NAME:

Time: 2hrs

Total Marks: 30

Note: Attempt all Sections

Attempt all questions for CO1

Attempt all questions		02 x 01=02	BL
1a.	What are the basic conditions for identifiers?	1	
1b.	What is the difference between Procedural Oriented programming (POP) language and Object-Oriented Programming (OOP) language?	1	

Attempt any one question		01x 04=04	BL
2a.	Explain Reference variable with suitable example. OR Explain Data types in C++ with suitable diagram.	2 2	
2b.	Explain different types of numeric constant. OR Explain basic concepts of OOPs with suitable example.	2 2	

Attempt all questions for CO2

Attempt all questions		02 x 01=02	BL
3a.	What are the Manipulators?	1	
3b.	What is the bit wise operators and operator Associativity in C++?	1	

Attempt any one question		01x 04=04	BL
4a.	Write a program in C++ for print sum of the series 1-2+3-4+5-6+7..... -n. where value of n is your choice. OR What is meant by the break statement and how it is involved in constructing a multiway switch-case structure?	4 3	
4b.	Explain function and its components of function? Write a C++ program swap to value without third variable using function. OR Explain following terms. 1. Jump statement 2. Continue Statement	3 2	

Attempt all questions for CO3

Attempt all questions		02 x 01=02	BL
5a.	Define class and how a class is different from an object?	2	
5b.	Explain member functions (Methods) of class with suitable example.	2	

Attempt any one question		01x 04=04	BL
6a.	Explain static data member and static data member function with suitable example. OR What is a scope resolution operator? How is it useful for defining the data member and member function of a class?	2 3	
6b.	Write an object-oriented program in C++ to generate a Fibonacci series of n numbers, where n is defined by user(programmer). (The series should be :1 1 2 3 5 8 13 21 32..... and so on.) OR Develop an object-oriented program in C++ to create a library information system containing the following for all books in the library: Accession number Name of the author Title of the book Year of publication Publisher's name Cost of the book Design a base class with the data member Accession number, Name of author and title of the book and another class consisting of year of publication and publisher's name. The derived class consists of the data member and cost of the book.	4 4	

Attempt all questions for CO4

Attempt all questions		02 x 01=02	BL
7a.	What is function over loading? Discuss with small example.	1	
7b.	What is late binding?	1	

Attempt any one question		01x 04=04	BL
8a.	Explain how virtual base class is different from the conventional base classes of the OOPs. OR What is pure virtual function? Explain with suitable example.	2 2	
8b.	What is the difference between static binding and dynamic binding? Explain with example. OR What is the operator overloading? Explain with example.	2 1	

Attempt all questions for CO5

Attempt all questions		02 x 01=02	BL
9a.	What is vector?	1	
9b.	What are Maps?	1	

Attempt any one question		01x 04=04	BL
10a.	Explain C++ standard templates Library in brief. OR Write a C++ program for print five numbers using vector STL.	2 3	
10b.	What are containers? Explain in detail with example. OR Explain Iterator with example.	1 2	