BACHELOR OF TECHNOLOGY (CBCS - 2023)
B. Tech. Sem-III Computer Science & Business Systems : WINTER: 2025
SUBJECT: OBJECT ORIENTED PROGRAMMING

Day : Monday
Date : 15/12/2025

W-29217-2025

Time : 10:00 AM-01:00 PM
Max. Marks : 60

NB :
1. Assume suitable data, if necessary.
2. Draw neat labelled diagrams WHEREVER necessary.
3. Figures to the right indicate FULL marks for the question.
4. All questions are COMPULSORY.

Q. 1	Define Preprocessor directives of C? List and explain types of preprocessor directives with suitable example.	(10)
	OR	
Q. 1	How is array defined and initialized in C? Write C program to find maximum number in array.	(10)
Q. 2	Describe the concept of reference variable with suitable example. Also differentiate between call by reference and reference variable.	(10)
	OR	
Q. 2	List and explain newly added data of C++ with suitable example.	(10)
Q. 3	How are member functions defining in c++? Also write applications of OOP in detail	(10)
	OR	
Q. 3	Define Data Hiding in context of Object-Oriented Programming. Explain how it contributes to the security and reliability of software systems. Provide examples to illustrate how data hiding is implemented in C++.	(10)
Q. 4	Describe the concept of constructor and destructor in detail. Give example of constructor and destructor with suitable example.	(10)
	OR	
Q. 4	Explain concept of friend class in C++. How does it affect encapsulation? Provide an example where one class is declared as friend of another and can access its private members.	(10)
Q. 5	Describe with suitable example the terms of C++ Public, Private, Protected.	(10)
	OR	
Q. 5	Describe concept of Virtual Base Class. When do we need to make it? Explain it with suitable example.	(10)
Q. 6	Discuss how file handling is implemented in C++ using file streams. Explain the process of reading from and writing to file with examples. Demonstrate the use of ifstream and ofstream for file operations.	(10)
	OR	
Q. 6	Define Function Template. Explain How parameters are passed to function using concept of function template.	(10)

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