Reg. No. | | | | | | | | |

G. VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), KOVILPATTI – 628 502.

UG DEGREE END SEMESTER EXAMINATIONS - NOVEMBER 2024.

(For those admitted in June 2023 and later)

PROGRAMME AND BRANCH: B.Sc., COMPUTER SCIENCE

SEM	CATEGORY	COMPONENT	COURSE CODE	COURSE TITLE
III	PART - III	CORE-3	U23CS303	OBJECT ORIENTED PROGRAMMING CONCEPTS USING C++

Date & Session: 09.11.2024/AN **Time : 3 hours** **Maximum: 75 Marks**

Course Outcome	Bloom's K-level	Q. No.	SECTION – A (10 X 1 = 10 Marks) Answer ALL Questions.
CO1	K1	1.	Identify the concept which means wrapping up of data and functions together. a) Encapsulation b) Inheritance c) Polymorphism d) Abstraction
CO1	K2	2.	Identify from the following is used for invoking a function. a) Call-by-reference b) Call-by-value c) Call-by-functions d) Both A and B
CO2	K1	3.	Select the term is used for a function defined inside a class. a) Member Variable b) Member function c) Class function d) Classic function
CO2	K2	4.	Show the constructor function which is designed to copy objects of the same class type. a) Create constructor b) Object constructor c) Dynamic constructor d) Copy constructor
CO3	K1	5.	Identify the type of inheritance which allows a derived class to inherit from multiple base classes. a) Single Inheritance b) Multilevel Inheritance c) Multiple Inheritance d) Hierarchical Inheritance
CO3	K2	6.	Show the operator which is suitable for concatenation function of a string class. a) < operator b) * operator c) + operator d) > operator
CO4	K1	7.	Select the member function that is declared within a base class and redefined by derived class. a) Virtual function b) Static function c) Friend function d) Const member function
CO4	K2	8.	Show the operator which is used to allocate memory dynamically in C++. a) alloc b) malloc c) new d) create
CO5	K1	9.	Choose the class which is used for output file stream in C++. a) ifstream b) ostream c) ofstream d) fstream
CO5	K2	10.	Show the purpose of exception handling in C++. a) To prevent syntax errors b) To manage memory leaks c) To handle runtime errors and exceptions d) To optimize code execution

Course Outcome	Bloom's K-level	Q. No.	**SECTION – B (5 X 5 = 25 Marks)** **Answer ALL Questions choosing either (a) or (b)**
CO1	K3	11a.	Write short note on key concepts of Object Oriented Programming. **(OR)**
CO1	K3	11b.	Show with an example how a Switch statement is defined and used in C++.
CO2	K3	12a.	Show with an example how a Class is defined and used in C++. **(OR)**
CO2	K3	12b.	Show with an example how static member variables and static member functions are defined and used in C++.
CO3	K4	13a.	Illustrate in detail about virtual base class. **(OR)**
CO3	K4	13b.	Infer about abstract classes.
CO4	K4	14a.	Infer bout 'this' pointer and explain with example. **(OR)**
CO4	K4	14b.	Infer in detail about virtual functions.
CO5	K5	15a.	Discuss about Exception handling. **(OR)**
CO5	K5	15b.	What is a string? How will you declare and initialize an string object.

Course Outcome	Bloom's K-level	Q. No.	**SECTION – C (5 X 8 = 40 Marks)** **Answer ALL Questions choosing either (a) or (b)**
CO1	K3	16a.	Illustrate in detail about datatypes in C++. **(OR)**
CO1	K3	16b.	Illustrate about inline functions with suitable example.
CO2	K4	17a.	Infer in detail about function overloading. **(OR)**
CO2	K4	17b.	Infer about friend functions with an example.
CO3	K4	18a.	Illustrate in detail about the various types of inheritance. **(OR)**
CO3	K4	18b.	Write a C++ program to overload a binary operator.
CO4	K5	19a.	Show with example the purpose of any five string functions. **(OR)**
CO4	K5	19b.	Discuss "new" and "delete" operators with suitable example.
CO5	K5	20a.	Discuss in detail the functions for manipulations of a file pointer. **(OR)**
CO5	K5	20b.	Discuss in detail file opening modes in C++.