

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



**UG DEGREE END SEMESTER EXAMINATIONS - APRIL 2025.**

(For those admitted in June 2023 and later)

**PROGRAMME AND BRANCH: B.C.A.**

| SEM | CATEGORY | COMPONENT | COURSE CODE | COURSE TITLE                                      |
|-----|----------|-----------|-------------|---|
| II  | PART-III | CORE-3    | U23CA202    | OBJECT ORIENTED PROGRAMMING<br>CONCEPTS USING C++ |

**Date & Session: 28.04.2025 /FN**

**Time : 3 hours**

**Maximum: 75 Marks**

| Course Outcome | Bloom's K-level | Q. No. | SECTION – A (10 X 1 = 10 Marks)<br>Answer <u>ALL</u> Questions.  |
|----------------|-----------------|--------|--|
| CO1            | K1              | 1.     | Identify the correct identifier used in C++ _____.<br>a) VAR_1234<br>b) \$var_name<br>c) 7VARNAME<br>d) 7var_name  |
| CO1            | K2              | 2.     | The another name of switch statement is _____.<br>a) choosing structure<br>b) selective structure<br>c) certain structure<br>d) bitwise structure  |
| CO2            | K1              | 3.     | The data members and functions of a class in C++ are by default _____.<br>a) protected<br>b) private<br>c) public<br>d) public & protected   |
| CO2            | K2              | 4.     | Summarize the role of destructors in Classes in C++.<br>a) To modify the data whenever required<br>b) To destroy an object when the lifetime of an object ends<br>c) To initialize the data members of an object when it is created<br>d) To call private functions from the outer world                           |
| CO3            | K1              | 5.     | How does overloading related to polymorphism.<br>a) compile-time<br>b) run-time<br>c) Virtual<br>d) hybrid   |
| CO3            | K2              | 6.     | Which among the following best defines single level inheritance?<br>a) A class inheriting a derived class<br>b) A class inheriting a base class<br>c) A class inheriting a nested class<br>d) A class which gets inherited by 2 classes  |
| CO4            | K1              | 7.     | How will you release the memory allocated by a pointer in C++?<br>a) delete pointer<br>b) (free) pointer<br>c) (release)pointer<br>d) (remove) pointer   |
| CO4            | K2              | 8.     | What is an array in programming?<br>a) An array is a series of elements of the same type in contiguous memory locations<br>b) An array is a series of element<br>c) An array is a series of elements of the same type placed in non-contiguous memory locations<br>d) An array is an element of the different type |
| CO5            | K1              | 9.     | Which of the following statement is true about FILE *fp.<br>a) FILE is a keyword in C for representing files and fp is a variable of FILE type.<br>b) FILE is a structure and fp is a pointer to the structure of FILE type<br>c) FILE is a stream<br>d) FILE is a buffered stream                                 |
| CO5            | K2              | 10.    | Which header file is used to include the string object functions in C++?   |

|                |                 |        | a) #include <string.h><br>c) #include <string>   | b) #include <cstring><br>d) #include <string.cpp> |
|----------------|-----------------|--------|--|---|
| Course Outcome | Bloom's K-level | Q. No. | <b>SECTION – B (5 X 5 = 25 Marks)</b><br><b>Answer <u>ALL</u> Questions choosing either (a) or (b)</b>     |   |
| CO1            | K3              | 11a.   | How will you apply If else statement in C++? Explain.<br><b>(OR)</b>                                       |   |
| CO1            | K3              | 11b.   | Make use of for loop to print all prime numbers between 1 and 50.  |   |
| CO2            | K3              | 12a.   | Apply function overloading with a function named add() to add integer and double in C++.<br><b>(OR)</b>    |   |
| CO2            | K3              | 12b.   | What are the main uses of Copy constructor in C++? Explain with an example.                                |   |
| CO3            | K4              | 13a.   | Examine operator overloading with example.<br><b>(OR)</b>  |   |
| CO3            | K4              | 13b.   | Analyse the usage of Virtual base class in C++.  |   |
| CO4            | K4              | 14a.   | Critique the use of new and delete operator in C++.<br><b>(OR)</b>   |   |
| CO4            | K4              | 14b.   | Examine the array of classes in C++.   |   |
| CO5            | K5              | 15a.   | “Binary files typically consume less storage space than ASCII files”-Justify the statement.<br><b>(OR)</b> |   |
| CO5            | K5              | 15b.   | Investigate the string comparison in C++ with suitable example.  |   |

| Course Outcome | Bloom's K-level | Q. No. | <b>SECTION – C (5 X 8 = 40 Marks)</b><br><b>Answer <u>ALL</u> Questions choosing either (a) or (b)</b> |  |
|----------------|-----------------|--------|--|--|
| CO1            | K3              | 16a.   | How will you apply while and do while statement in C++? Explain with an example.<br><b>(OR)</b>        |  |
| CO1            | K3              | 16b.   | illustrate call by reference and return by reference in C++.   |  |
| CO2            | K4              | 17a.   | Apply array of objects in C++ to store data of more than one student.<br><b>(OR)</b>                   |  |
| CO2            | K4              | 17b.   | Analyze the usage of destructor in C++.  |  |
| CO3            | K4              | 18a.   | Examine the hybrid inheritance in hierarchical classification.<br><b>(OR)</b>                          |  |
| CO3            | K4              | 18b.   | Deduce the advantages of using multilevel inheritance in C++?  |  |
| CO4            | K5              | 19a.   | Evaluate the importance of polymorphism in C++.<br><b>(OR)</b>   |  |
| CO4            | K5              | 19b.   | Compare the one-dimensional array and two-dimensional array.   |  |
| CO5            | K5              | 20a.   | Justify the need of Exception handling in C++ with example.<br><b>(OR)</b>                             |  |
| CO5            | K5              | 20b.   | Assess the usage of read operation in C++.   |  |