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

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

**UG DEGREE END SEMESTER EXAMINATIONS - NOVEMBER 2024.**

(For those admitted in June 2021 and later)

**PROGRAMME AND BRANCH: B.Sc., PHYSICS**

| SEM | CATEGORY | COMPONENT | COURSE CODE | COURSE TITLE |
|---|---|---|---|---|
| V | PART - III | CORE | U21PH509 | PROGRAMMING IN C++ |

**Date & Session: 08.11.2024 / FN** **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. | Which of the following is not a valid keyword in C++ language?<br>a) while b) for c) witch d) do-while |
| CO1 | K2 | 2. | The data elements in the structure are also known as what?<br>a) objects b) members c) data d) objects & data |
| CO2 | K1 | 3. | Which is more effective while calling the functions?<br>a) call by value b) call by reference<br>c) call by pointer d) call by object |
| CO2 | K2 | 4. | If an argument from the parameter list of a function is defined constant then _____<br>a) It can be modified inside the function b) Error occurs<br>c) It cannot be modified inside the function d) Segmentation fault |
| CO3 | K1 | 5. | The variables declared inside the class are known as data members and functions are known as _____<br>a) data functions b) inline functions<br>c) member functions d) member variables |
| CO3 | K2 | 6. | A member function can be called by using its name inside another function of the same class, which is known as _____ of the member function<br>a) sub-function b) sub-member<br>c) nesting d) sibling |
| CO4 | K1 | 7. | Which of the following operator cannot be overloaded?<br>a) + b) ? :<br>c) - d) % |
| CO4 | K2 | 8. | A Constructor that does not have any parameters is called_____ Constructor.<br>a) Custom b) Static<br>c) Dynamic d) Default |
| CO5 | K1 | 9. | By default, the members of the base class are _____ in the derived class.<br>a) private b) public<br>c) protected d) None of the above |
| CO5 | K2 | 10. | In which type of inheritance do multiple derived classes share a single base class?<br>a) Single Inheritance b) Multilevel Inheritance<br>c) Multiple Inheritance d) Hierarchical Inheritance |

| Course Outcome | Bloom's K-level | Q. No. | **SECTION – B (5 X 5 = 25 Marks)**<br>**Answer ALL Questions choosing either (a) or (b)** |
|---|---|---|---|
| CO1 | K3 | 11a. | Write about derived data types in C++.<br>**(OR)** |
| CO1 | K3 | 11b. | Write about the difference in declaring variables in C and C++. With an example program. |
| CO2 | K3 | 12a. | Explain the call by reference method in C++.<br>**(OR)** |
| CO2 | K3 | 12b. | Write a C++ program to print the prime numbers between two numbers. |
| CO3 | K4 | 13a. | Simplify the concept of static data member with an example.<br>**(OR)** |
| CO3 | K4 | 13b. | Comment about the nesting of member function with an example program. |
| CO4 | K4 | 14a. | Analyse the overloading of unary operator with an example program.<br>**(OR)** |
| CO4 | K4 | 14b. | With an example program explain the uses of copy constructors in a class. |
| CO5 | K5 | 15a. | With an example program explain the concept of single inheritance.<br>**(OR)** |
| CO5 | K5 | 15b. | Conclude the importance of C++ stream. |

| Course Outcome | Bloom's K-level | Q. No. | **SECTION – C (5 X 8 = 40 Marks)**<br>**Answer ALL Questions choosing either (a) or (b)** |
|---|---|---|---|
| CO1 | K3 | 16a. | Write about the scope resolution operator with an example program.<br>**(OR)** |
| CO1 | K3 | 16b. | Write about the three types of control structures with an algorithm. |
| CO2 | K4 | 17a. | Illustrate the uses of inline function with an example program.<br>**(OR)** |
| CO2 | K4 | 17b. | Find the factorial of a given number by using a function in C++. |
| CO3 | K4 | 18a. | Comment about the pass by value and pass by reference method in calling the function with an example program.<br>**(OR)** |
| CO3 | K4 | 18b. | Write a C++ program to swap the private data of classes. |
| CO4 | K5 | 19a. | Discuss about the overloading of binary operators with an example program.<br>**(OR)** |
| CO4 | K5 | 19b. | Discuss about the multiple constructors in a class. Also write a C++ program to add the two complex numbers. |
| CO5 | K5 | 20a. | Discuss about the multiple inheritance with an example program.<br>**(OR)** |
| CO5 | K5 | 20b. | Discuss about the virtual base class with an example program. |