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(FOR THE CANDIDATES ADMITTED
DURING THE ACADEMIC YEAR 2022 ONLY)

22UMS5E1

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : NOVEMBER-2024

COURSE NAME: B.Sc.- MATHEMATICS.

MAXIMUM MARKS: 50

SEMESTER: V

TIME : 3 HOURS

PART - III

OOP WITH C++

SECTION – A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

MULTIPLE CHOICE QUESTIONS.

(K1)

1. The smallest individual units in a program are known as _____.
a) syntax b) data c) tokens d) operator
2. The variables declared inside the class are known as _____.
a) member function b) data members c) encapsulation d) visibility labels
3. C++ provides special member function called the _____.
a) destructor b) constructor c) integer d) object
4. The mechanism of deriving a new class from an old one is called _____.
a) private function b) public function c) inheritance d) protected member
5. C++ supports a mechanism known as _____ to achieve run time polymorphism.
a) inheritance b) function overloading c) pointers d) virtual function

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.

(K2)

6. What does polymorphism stand for?
7. What is inline function?
8. How to define copy constructor?
9. What is operator over loading?
10. What is run time polymorphism?

SECTION – B

(5 X 3 = 15 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

(K3)

11. a) Explain: (i) Input operator (ii) Output operator.

(OR)

- b) What are the types of expressions. Explain briefly.

12. a) Write short note on class specification.

(OR)

- b) What are the advantages of function prototypes in C++?

(CONTD.....2)

13. a) What is parameterized constructor? Explain.

(OR)

b) Describe friendly functions in C++.

14. a) What is an operator function? Describe the syntax of an operator function.

(OR)

b) Explain constructors in derived classes.

15. a) What does this pointer point to? Explain.

(OR)

b) When do we make a virtual function “pure”? What are the implications of making a function a pure virtual function?

SECTION – C

(5 X 5 = 25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

(K4 (Or) K5)

16. a) Describe the major parts of a C++ program.

(OR)

b) Explain control structures in C++.

17. a) How to define member functions? Explain it.

(OR)

b) Discuss function overloading.

18. a) Explain destructors with an examples.

(OR)

b) Explain briefly about static data members with an illustration.

19. a) How to classify the types of conversion? Explain.

(OR)

b) Describe Hierarchical inheritance.

20. a) What is a virtual function? Explain with an illustration.

(OR)

b) Explain pointers to objects. Give an illustration use of it.
