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(FOR THE CANDIDATES ADMITTED DURING THE ACADEMIC YEAR 2022-23 ONLY)

SUBJECT CODE **22 PPS 4E7**

REG.NO.

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

END-OF-SEMESTER EXAMINATIONS : MAY – 2024

M.Sc. – PHYSICS **MAXIMUM MARKS: 50**

IV SEMESTER **TIME : 3 HOURS**

MICROPROCESSORS AND OBJECT ORIENTED PROGRAMMING

SECTION – A (10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS. (K1)

1. The size of the accumulator in 8085 microprocessor is……

   a) 8 bit b) 16 bit c) 4 bit d) 2 bit

2. The size of RAM in 8051 microcontroller is ……..

   a) 1 byte b) 16 byte c) 64 byte d) 128 byte

3. Friendly function can be declared in _____ number of classes.

   a) 5 b) 10 c) any d) none of these

4. Operator functions must be _____ functions.

   a) member b) friendly c) either (a) or (b) d) none of these

5. The mechanism of deriving a new class from old one is called…….

   a) inheritance b) classification c) overloading d) none of these

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES. (K2

6. What is the type of data transfer available in 8085 μP?

7. What is a loop?

8. What is a class?

9. What do you mean by a destructor?

10. What is a pointer?

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ETHICAL PAPER

SECTION – B (5 X 3 = 15 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)

11. a) Explain in detail the data transfer instructions. Give Examples.
(OR)
b) Explain any two arithmetic and logical instructions sets with example.

12. a) Write an assembly language program to subtract two 8 bit numbers.
(OR)
b) Write an assembly language program to find the largest of given N numbers.

13. a) List the advantages of Object Oriented Programming.
(OR)
b) What are known as member functions ? Classify.

14. a) Explain copy constructor with an example.
(OR)
b) What are the rules to be adopted while overloading operations are used in C++ programming?

15. a) With an example explain 'this' pointer.
(OR)
b) Explain single inheritance with example.

SECTION – C (5 X 3 = 15 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K4 /K5)

16. a) Describe the architecture of 8085 μP with block diagram..
(OR)
b) What are the types of addressing modes of 8085 μP ? Explain with example..

17. a) List the steps involved in microprocessor programming.
(OR)
b) Draw the block diagram of 8051and explain its function.

18. a) Discuss the basic concepts of Object Oriented Programming.
(OR)
b) Explain the two parts of specifying a class.

19. a) What are the multiple constructors? Explain with example. Write a program using overload constructors. (OR)
b) Explain overloading of Unary and Binary operators with examples.

20. a) Discuss in detail about the multiple inheritance with an illustration.
(OR)
b) Discuss the virtual functions with examples and also write any 5 rules for virtual functions.