## MID TERM EXAMINATION, DECEMBER 2021

CLASS: II PUC

SUBJECT: COMPUTER SCIENCE (41)

MARKS: 70

TIME 3 Hour 15 Mins.

### PART - A

# Answer all the questions. Each question carries ONE mark.

10x1 = 10

- 1. What is a motherboard?
- 2. What is Tautology?
- Write the truth table of two variables AND operation.
- 4. What is a logic gate?
- Define Data structure.
- 6. Which is the default access specifier?
- 7. What is the purpose of scope resolution operator?
- Define function Overloading.
- 9. When is a Constructor called?
- 10. What is the use of a Webpage?

#### PART - B

## Answer any FIVE questions.

## Each question carries 2 marks.

5x2 = 10

- 11. What is minterm and maxterm?
- 12. What is primitive data structure? Give example.
- 13. Define sorting. Mention one type of sorting method.
- 14. What is base class and derived class?
- 15. How do you declare an object ? Give example.
- 16. Write a note on public access specifier.
- 17. Write the syntax and example of a destructor.
- 18. What is HTML? What is the extension used to save a HTML file?

#### PART - C

## Answer any FIVE questions.

## Each question carries 3 marks.

5x3 = 15

- 19. What is UPS? Mention its different types.
- Write the logic symbol and truth table of NAND gate.
- 21. Write an algorithm for linear search method.
- 22. Give the syntax and example of class definition.
- 23. Discuss overloaded function with syntax and example.

(P.T.O)

- 24. What is constructor? Give its syntax and example.
- 25. Explain any 3 text formatting tags.
- 26. Name the tags to (a) insert an image (b) insert a table (c) tag for listing.

### PART - D

# Answer <u>any SEVEN</u> of the following questions. Each question carries <u>5 marks</u>.

7x5 = 35

- 27. Explain any 5 components of motherboard.
- 28. Simplify the following Boolean functions using K Map.  $f(a, b, c, d) = \sum (0, 1, 4, 5, 9, 10, 11, 13, 14, 15)$
- 29. State and prove any one De-Morgan's theorem using truth table method.
- 30. Realise the basic gates only using NOR gates.
- 31. Write the algorithm to insert an element into an array.
- 32. Explain the different operations on stacks.
- 33. Explain the basic concepts/characteristics/ features of OOP's.
- 34. Write the different applications of OOP's.
  - 35. Explain inside class definition of a member function with an example program.
  - 36. Explain inline function with a programming example.
  - 37. How is a constructor invoked using implicit call? Explain with example.

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