2024/FYUG/EVEN/SEM/
CAIDC–151T/139

FYUG Even Semester Exam., 2024

COMPUTER APPLICATIONS

(2nd Semester)

Course No. : CAIDC–151T

(Programming Fundamentals with C)

Full Marks : 70
Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

SECTION—A

Answer any *twenty* of the following as directed : 1×20=20

1. What is computer program?
2. Write down the purposes of programming languages.
3. What is testing?
4. What is the meaning of 'warming message'?
5. Define the meanings of input and output.

6. What do you mean by good programming?

7. Write down the purpose of decision box in flowchart.

8. Define algorithm.

9. Who developed C programming language and in which year?

10. Why is C called middle level language?

11. What is variable in C?

12. Write down the purpose of main() function.

13. A C-statement must end with a _____.
(Fill in the blank)

14. What is the meaning of ++ operator?

15. What is header file?

16. What do you mean by multiway decision-making statement?

17. What is break statement?

18. What is the purpose of else block?

19. What is looping?

20. What is branching statement?

21. What is array?

22. How is 1D array initialized?

23. What do you mean by user-defined function?

24. Write down the purpose of return statement.

25. Define pointer.

SECTION—B

Answer any *five* of the following questions : 2×5=10

26. Write down the drawbacks of machine level language.

27. Write down the difference between compiler and interpreter.

28. What are the good qualities of algorithm?

29. Write down the steps to compile a C program.

30. What are the different primary data types used in C language? Give example.

31. How are conditional operators used? Give example.

32. What is the difference between entry controlled and exit controlled loop?

33. Write the syntax of switch statement. Give example.

34. What is the difference between user-defined function and built-in function?

35. Write down the advantages of pointer.

SECTION—C

Answer any *five* of the following questions : 8×5=40

36. Explain different types of errors encountered in language translation process.

37. Write short notes on the following : 2×4=8

(a) Source code

(b) Object code

(c) Debugging code

(d) Assembler

38. Draw a flowchart and write an algorithm to compute the area of a circle.

39. (a) Write down the brief history of C programming language. 3

(b) How are C programs compiled and executed? Explain with example. 5

40. (a) Explain C tokens with example. 4

(b) Write a C program to calculate the simple interest. 4

41. (a) Explain different operators used in C language. 5

(b) Explain the rules of identifiers. 3

42. (a) Write a C program to find the greatest number among the three given numbers. 5

(b) Briefly explain how nested if statement works. 3

43. (a) Write a C program to find the factorial of *n*. 5

(b) Explain the syntax of for loop. 3

44. Define the following : 2×4=8

(a) Function prototype

(b) Actual argument and formal argument

(c) Function body

(d) Function call

45. *(a)* Write a C program to find sum of elements in a given array. 6

(b) Write down the advantages of function. 2

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