



Murugan.

Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD)
Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment I – August 2024
I SEMESTER

Class : I UG
Major : Computer Applications

Time: 2 hours
Maximum Marks: 60

23BCAC02 Problem Solving using C

Course Outcomes:

1. Understand programming methodologies by learning algorithm and flowcharts.
2. Obtain knowledge about the fundamentals of C programming.
3. Implement different operations on arrays.
4. Understand use of functions, pointers, structures and unions.
5. Gain knowledge about the basics of file handling mechanism.

Part - A

6x1=6

Choose the correct answer

- | | | | | | |
|--|--|--|--|----------------------------------|--------|
| 1. It is used to show the processing that takes place in the flowchart | a.diamond | b. ellipse | c. arrow | d. rectangle | CO1 K1 |
| 2. Which of the following is not a valid C variable name? | a. int number; | b. float rate; | c. int variable_count; | d. int \$main; | CO1 K1 |
| 3. How Many Keywords are there in C? | a.31 | b.32 | c.64 | d. 63 | CO2 K2 |
| 4. What is #include <stdio.h>? | a. Preprocessor directive | b. Inclusion directive | c. File inclusion directive | d. Header directive | CO2 K2 |
| 5. What is the output of printf("%d",sizeof("Hello")); in C? | a. 9 | b. 5 | c. 6 | d.7 | CO3 K3 |
| 6. Which of these best describes an array? | a. A data structure that shows a hierarchical behavior | b. Container of objects of similar types | c. Arrays are immutable once initialised | d. Array is not a data structure | CO3 K3 |

Part - B

3x6=18

Answer ALL Questions

- | | | |
|---|------|--------|
| 7. a. Explain steps involved in problem solving using computers | (or) | CO1 K1 |
| 7. b. Discuss in detail about characteristics of an algorithm. | | CO1 K2 |
| 8. a. Explain in detail about constants in c with example | (or) | CO2 K1 |
| 8. b. Discuss in detail about data types in c with example. | | CO2 K2 |
| 9. a. Explain in detail about keywords and identifiers in c with example | (or) | CO2 K2 |
| 9. b. Explain in detail about array declaration and initialization in c with example. | | CO3 K2 |

Part - C

3x12=36

Answer ALL questions

- | | | |
|--|------|--------|
| 10. a. Write about the symbols used in flowchart with an example | (or) | CO1 K1 |
| 10. b. Discuss in brief about building blocks of programming language | | CO1 K2 |
| 11. a. Explain in detail about C Tokens with example. | (or) | CO2 K2 |
| 11.b. Discuss in detail about operators and expressions in c with example. | | CO2 K2 |
| 12. a. Explain in brief about the control statements in c with example | (or) | CO2 K2 |
| 12.b. Discuss in detail about types of array in c with example | | CO3 K1 |
