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SEAT NO : _____

[14]

SARDAR PATEL UNIVERSITY
B.Sc. Examination SEMESTER – III
INFORMATION TECHNOLOGY

US03CINT02: Problem Solving Methodology & Programming in C

Date: 27/09/2022, Tuesday Time: 12:30pm to 02:30pm

Total Marks: 70

Q.1 Multiple Choice Questions

[10]

- _____ is a step by step approach to solve any problem.
(a) Process (b) Programming Language (c) Algorithm (d) Compiler
- _____ is a pictorial representation of an algorithm.
(a) Data Diagram (b) Flow Chat (c) Pie Chart (d) Program
- _____ format specifier used for floating data type.
(a) %d (b) %f (c) %c (d) %e
- Which of the following section is compulsory in C program?
(a) Main() (b) Definition (c) Documentation (d) None of these
- The range of int data type is _____ bytes.
(a) 2 (b) 4 (c) 8 (d) 16
- _____ loop execute at least once.
(a) while loop (b) do...while (c) if (d) for
- Do-while loop is also known as _____ loop.
(a) Entry level (b) Exit level (c) a & b (d) None of this
- For declaring one- dimensional array _____ subscript is use.
(a) One (b) Two (c) Three (d) All of above
- All function by default return _____
(a) integer (b) float (c) void (d) string
- _____ function count and return the number of character in a string.
(a) strepy() (b) strlen() (c) strupr() (d) strrev()

Q.2 Fill up the blank or True/False.

[08]

- _____ symbol is used to represent output in a flowchart.
- _____ is the standard decision symbol for a flowchart.
- The range of double data type is _____ bytes.
- By default _____ digits in float type variable after decimal point.
- An array can be initialize either at compile time or at Run Time. [True / False]
- '\0' is Null Character. [True / False]
- isupper() function is available in <ctype.h>. [True / False]
- Abs () function is available in <math.h>. [True / False]

Q.3 Answer the following questions in short (Any 10):

[20]

1. Write advantages and disadvantages of an algorithm.
2. Draw a flowchart To find simple interest. Hint: $SI = (P * R * N)/100$.
3. List Rules to draw flow chart.
4. Explain printf() statement with example.
5. Write Rules of variable name.
6. Draw the basic structure of C program.
7. Explain break statement in C.
8. Explain continue statement in C.
9. Write the syntax of compile time initialization of 1D array in c. Also give example.
10. Explain gets () function with syntax and example.
11. Explain puts () function with syntax and example.
12. Explain strlen () function with syntax and example.

Q.4 Answer the following questions in LONG (Any 4):

[32]

1. Draw a flowchart to check whether inputted number is prime number or not.
2. Draw a flowchart to check whether inputted number is palindrome number or not.
3. What is operator? Explain different operators with example.
4. Explain switch statement with syntax and example.
5. Explain while and for loop with syntax and example.
6. Explain initialization of 2D array with syntax and example.
7. Define function? Explain type of function use in c with example.
8. Explain command line argument in c with example.

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