

[5]

SARDAR PATEL UNIVERSITY

BSc (CA & IT) (Integrated) (Regular) / MSc IT (Integrated) (NC)

1st Semester (CBCS)Tuesday, Date: 25th October, 2016

Session: Morning Time : 10:00 A.M. to 1:00 P.M.

Course Code: PS01CIT03

Course Title : PROBLEM SOLVING METHODOLOGY AND PROGRAMMING IN 'C'

Total Marks: 70

Q1. Multiple Choice Questions.

[10]

1. Which of the following generates machine independent program?

- A. Machine Language C. High Language
B. Assembly Language D. All of the above

2. _____ converts assembly language instructions into equivalent binary instructions.

- A. Compiler C. Interpreter
B. Assembler D. Editor

3. _____ is a new line escape sequence character.

- A. \b C. \f
B. \t D. \n

4. _____ is an exit controlled loop.

- A. while C. do while
B. for D. All of these

5. Array can be initialized at compile time and _____.

- A. run time C. load time
B. link time D. None of these

6. Two dimensional array requires _____ number of subscripts.

- A. 1 C. 2
B. 3 D. 4

7. '\0' is known as _____ character.

- A. NULL C. Symbolic constant
B. Variable D. Escape character

8. Strings are declared using _____ datatype.

- A. float C. double
B. char D. int

9. _____ statement is used to return value to the function call statement.

- A. value C. break
B. continue D. return

10. Function parameters are separated by _____.

- A. semi colon C. dot
B. colon D. comma

Q2. Answer the following short questions (Attempt any TEN) [20]

1. List categories of Computer Languages.
2. Define Compiler.
3. What is translator? List various translators.
4. Draw the basic structure of C program.
5. State which of the following is valid and in-valid variable name.
 - i) Sum of Product
 - ii) areaofsqr
 - ii) price
 - iv) 4marks
6. What is a constant? Give example.
7. What is array? List out the types of array used in c programming.
8. List out any 4 functions of ctype.h header file.
9. List out any four mathematical functions of math.h header file.
10. List categories of functions used in C. State examples.
11. List out the operations that can be performed on the string. State the header file required to include for using string handling functions.
12. Define function?

Q3. Define Flowchart. Explain all symbols used to draw flowchart in detail. State advantages and disadvantages of flowchart. [10]

OR

Q3. Explain Machine Level Language and Assembly Level Language in detail with advantages and disadvantages. [10]

Q4.a. List all operators used in C Programming. Explain Relational and Arithmetic operators with example. [6]

b. Explain switch statement with syntax and example. [4]

OR

Q4.a. Explain any two variations of if statement with example. [6]

b. What is Variable? State rules for declaring a variable. [4]

Q5.a. Explain declaration and initialization of One dimensional array with example. [5]

b. Explain while loop with example. [5]

OR

Q5.a. Explain declaration and initialization of Two dimensional array with example. [5]

b. Explain do while loop statement with example. [5]

Q6.a. Explain function with argument with return value. [5]

b. What is string? Explain how strings are declared and initialized in C. [5]

OR

Q6.a. Explain function declaration and function call with its general form. [5]

b. Explain strlen() and gets() with example. [5]