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Paper ID: GSD001   **Course Code:** GC-SDP-01T

Examination (January - 2024)
Certificate/ Diploma (Semester-I)
Programme in Software Development and Programming

| Programming using C |

<u>**Time Allowed: 2 Hours**</u>   <u>**Max.Marks: 70**</u>

Instructions for the Students

1. The question paper shall consist of 70 Multiple Choice questions.
2. All questions are compulsory. Each question carries 1 mark.
3. There will be no negative marking.

Q1. The list of coded instructions is called
  a) Computer program
  b) Algorithm
  c) Flowchart
  d) Utility programs
	Q6. Who is father of C Language?
	a) Bjarne Stroustrup
	b) Dennis Ritchie
	c) James A. Gosling
	d) Dr. E.F. Codd

Q2. The word _____ comes from the name of a Persian mathematician Abu Jafar Muhammad ibn-i Musa al Khwarizmi.
a) Flowchart
b) Program
c) Algorithm
d) Syntax
	Q7. Part of algorithm which is repeated for the fixed number of times is classified as
	  a) Iteration
	  b) Selection
	  c) Sequence
	  d) Reverse action

Q3. _____ is a type of diagram that represents a process by showing the steps as boxes of different types in a particular sequence connected with directional arrows.
  a) Pie chart
  b) Flowchart
  c) Algorithm
  d) Data chart
	Q8. A variable in C cannot start with
	a) An alphabet
	b) A number
	c) A special symbol other than underscore
	d) both (b) and (c)

Q4. Actual instructions in flowcharting are represented in: a) Circles b) Boxes c) Arrows d) Lines	Q9. Who is the father of C language? a) Steve Jobs b) James Gosling c) Dennis Ritchie d) Rasmus Lerdorf

Q5. A program planning tool allowing programmers to plan program logic by writing instructions in English, which can be easily converted into real programming statements.
  a) Pseudocode
  b) Flowchart
  c) High level program
  d) D) Assembly language program.
	Q10. Loop statement which is repeated for some given number of times is classified as
	a) FOR loop
	b) GO loop
	c) REPEAT loop
	d) GO REPEAT loop

Q11. Which of the following cannot be a variable name in C?
  a) volatile
  b) true
  c) friend
  d) export
	Q21. What is the use of typedef keyword?
	  a) To create user defined data type
	  b) To create special functions
	  c) To change the meaning of built in datatypes
	  d) None of the above

Q12. Functions that are used in the programs and are defined by the programmers are called: a) program layout b) program procedure c) built-in functions d) user-defined functions	Q22. The ____ operator is true only when both the operands are true a) && b) || c) ! d) ?:
Q13. Which are the fundamental data types in C? a) char	Q23. The correct output of the statement int a = 10 + 4.867; is

b) int c) float d) All of the above	a) a = 10 b) a = 14.867 c) a = 14 d) compiler error
Q14. When variable used in program is whole number, the variable is stored as: a) string b) integer c) float d) pointer	Q24. Which of the following cannot be checked in a switch-case statement? a) Character b) Integer c) Float d) enum

Q15. What is an identifier in C language?
  a) An identifier is a combination of alphanumeric characters used for conditional and control statements
  b) An identifier is a combination of alphanumeric characters used for any variable, function, label name
  c) Both a and b
  d) None of the above
	Q25. For which of the following, "PI++;" code will fail?
	  a) #define PI 3.14
	  b) char *PI = "A";
	  c) float PI = 3.14;
	  d) None of the above

Q16. All keywords in C are in: a) LowerCase letters b) UpperCase letters c) CamelCase letters d) No specific case	Q26. What is the scope of extern class specifier? a) Within block b) Within Program c) Global Multiple files d) None of the above

Q17. Comment on the given statment: scanf("%d", i);
  a) Will execute without any error
  b) Will give Segmentation fault
  c) Will give Compilation Error
  d) None of the above
	Q27. Unary decrement operator is denoted by
	  a) -
	  b) +
	  c) - -
	  d) ++

Q18. What is the value of x in this C code? #include <stdio.h> void main() { int x = 5 * 9 / 3 + 9;} a) 3.75 b) 3 c) 24 d) Depends on compiler	Q28. What is the maximum length of a C string? a) 32 characters b) 64 characters c) 256 characters d) None of the above

Q19. Which of the following type of operators have the highest precedence in C
  a) Relational Operators
  b) Equality Operators
  c) Logical Operators
  d) Arithmetic Operators
	Q29. Which keyword is used to come out of a loop only for that iteration?
	  a) break
	  b) continue
	  c) return
	  d) none of the mentioned

Q20. What is the only function all c programs must contain? a) start() b) system() c) program() d) main()	Q30. In C, if you pass an array as an argument to a function, what actually gets passed? a) Value of elements in array b) First element of the array c) Base address of the array d) Address of the last element of array

Q31. The C code 'for(;;)' represents an infinite loop. It can be terminated by _____
  a) break
  b) exit(0)
  c) abort()
  d) terminate
	Q41. Which function is mandatory for every C Program?
	  a) main()
	  b) printf()
	  c) show()
	  d) scanf()

Q32. Choose the statement that best defines an array a) It is a collection of items that share a common name b) It is a collection of items that share a common name and occupy consecutive memory location	Q42. Which of the following statements is correct about k used in the below statement? char ****k; a) k is a pointer to a pointer to a pointer to a char

c) It is a collection of items of the same type and storage class that share a common name and occupy consecutive memory locations d) None of the above	b) k is a pointer to a pointer to a pointer to a pointer to a char c) k is a pointer to a char pointer d) k is a pointer to a pointer to a char
Q33. Which loop is faster in C Language, for, while or Do While.? a) for b) while c) do while d) All work at same speed	Q43. What is the C keyword that must be used to achieve expected result using recursion? a) printf b) scanf c) void d) return
Q34. Applications of multidimensional array are a) Matrix-Multiplication b) Minimum Spanning Tree c) Finding connectivity between nodes d) All of the mentioned	Q44. What is a format specifier in C language? a) A format Specifier tells compiler to treat a variable value is predefined way b) Different format specifiers are used to print different type of data c) Format specifiers are used to write data to files in a formatted way d) All the above
Q35. Which loop is guaranteed to execute at least one time? a) while b) do while c) for d) None of the above	Q45. Which is not a storage class? a) Auto b) Struct c) Extern d) Static

Q36. What will be output for the following code?
 	
int main()
{
   printf(""Hello"");
   main();
   return 0;}
a) Hello is printed once
b) Hello is printed infinite number of times
c) Hello is not printed at all
d) 0 is returned
	Q46. Which of the following is not an arithmetic operation?
	
	a) a * = 10;
	b) a / = 10;
	c) a ! = 10;
	d) a % = 10;

Q37. Which of the following is not a branching statement of C language? a) if statement b) if…else statement c) do...while d) switch statement	Q47. Where will the space be allocated for an automatic storage class variable? a) In CPU register b) In memory as well as in CPU register c) In memory d) On disk
Q38. Which operator connects the structure name to its member name? a) – b) <- c) . d) Both <- and .	Q48. The function returns the number of characters that are present before the terminating null character a) strlength() b) strlen() c) strlent() d) strchr()
Q39. The keyword used to transfer control from a function back to the calling function is: a) switch b) goto c) break d) return	Q49. An array index in C starts with? a) -1 b) 0 c) 1 d) 2
Q40. In C, a pointer variable to an integer can be created by the declaration a) int p*; b) int *p; c) int +p; d) int $p;	Q50. If you do not specify a storage class for a variable a) You get compiler error b) You get compiler warning c) Output is null always d) None of the above

Q51. What is the maximum number of dimensions an array in C may have? a) Two b) Eight c) Sixteen d) Theoretically no limit. The only practical limits are memory size and compilers	Q61. A pointer is a a) variable that stores address of an instruction b) variable that stores address of other variable c) keyword used to create variables d) an alternative to using a function
Q52. ____ define how the locations can be used a) Data types b) Attributes c) Links d) Data Objects	62. Check whether the condition is correct or not? int **a; a) It is illegal b) It is legal but meaningless c) It is syntactically and semantically correct d) It is semantically incorrect
Q53. What is a multidimensional array in C Language.? a) It is like a matrix or table with rows and columns b) It is an array of arrays c) To access 3rd row 2nd element use ary[2][1] as the index starts from 0 row or column d) All the above	Q63. The sign used before variable name in order to fetch the address of the variable a) Percent (%) b) Comma (,) c) Ampersand (&) d) Asterisk (*)
Q54. Which one of the following is not a reserved keyword for C? a) auto b) case c) main d) default	Q64. What is the result of logical or relational expression in C? a) True or False b) 0 or 1 c) 0 if an expression is false and any positive number if an expression is true d) Yes or No
Q55. Which of the following function is more appropriate for reading in a multi-word string? a) scanf() b) printf() c) gets() d) puts()	Q65. In C, a pointer variable to an integer can be created by the declaration a) int p*; b) int *p; c) int +p; d) int $p;
Q56. The conditional operator is also known as a) Relational operator b) Binary operator c) Ternary operator d) Arithmetic operator	Q66. The size of a union is determined by the size of the a) First member in the union b) Last member in the union c) Sum of the sizes of all members d) Biggest member in the union
Q57. If the two strings are identical, then strcmp() function returns a) -1 b) 1 c) 0 d) True	Q67. Which operator is used to connect structure name to its member name? a) dot operator (.) b) logical operator (&&) c) pointer operator (&) d) Arrow operator (->)
Q58. If you have to make decision based on multiple choices, which of the following is best suited? a) if b) if-else-if c) if-else d) All of the above	Q68. Input/output function prototypes and macros are defined in which header file? a) conio.h b) stdlib.h c) stdio.h d) dos.h
Q59. Which of the following function sets first n characters of a string to a given character? a) strset() b) strnset() c) strcset() d) strinit()	Q69. Which of the following cannot be a structure member? a) int type data b) Another structure c) Function d) Array
Q60. What is the size of a C structure? a) C structure is always 128 bytes b) Size of C structure is the total bytes of all elements of structure	Q70. In the absence of an exit condition in a recursive function, the following error is given a) Compile time error b) Run time error

c) Size of C structure is the size of largest element	c) Logical error
d) None of the above	d) No error