SUBJECT: BACHELOR OF COMPUTER APPLICATIONS
PAPER NAME: Programing language through C
PAPER NO: BCA/2/CC/09
SEMESTER : SECOND SEMESTER

A. Multiple choice questions

1. What is the size of an int data type?
    a) 4 Bytes
    b) 8 Bytes
    c) Depends on the system/compiler
    d) Cannot be determined

2. Which is correct with respect to the size of the data types?
    a) char > int > float
    b) int > char > float
    c) char < int < double
    d) double > char > int

3. The name of the variable used in one function cannot be used in another function.
    a) True
    b) False
    c) partially true
    d) partially false

4. The format identifier '%i' is also used for _____ data type.
    a) char
    b) int
    c) float
    d) double

5. What is the use of getchar ()?
    a) The next input character each time it is called
    b) EOF when it encounters end of file
    c) The next input character each time it is called EOF when it encounters end of file
    d) all of the mentioned

6. putchar (c) function/macro always outputs character c to the _____
    a) screen
    b) standard output

c) depends on the compiler

d) depends on the standard

7. What does scanf () function return?
    a) Number of successfully matched and assigned input items
    b) Nothing
    c) Number of characters properly printed
    d) Error

8. Which among the following has the highest precedence?
    a) &
    b) <<
    c) sizeof()
    d) &&

9. Libray function getch() belongs to which header file?
    a) stdio.h
    b) conio.h
    c) stdlib.h
    d) math.h

10. Which of the following function is more appropriate for reading in a multi-word string?
    a) scanf()
    b) printf()
    c) gets()
    d) puts()

11. Which of the following is true for variable names in C?
    a) Variable names cannot start with a digit
    b) Variable can be of any length
    c) They can contain alphanumeric characters as well as special characters
    d) Reserved Word can be used as variable name

12. For 16-bit compiler allowable range for integer constants is _____ ?
    a) -3.4e38 to 3.4e38
    b) -32767 to 32768
    c) -32768 to 32767
    d) -32668 to 32667

13. What is C Tokens?
    a) The smallest individual units of c program
    b) The basic element recognized by the compiler
    c) The largest individual units of program
    d) Both A & B

14. The geometrical represent shown below in flowchart represents

    a) Input/output
    b) Alternate process
    c) Decision
    d) Looping

15. The geometrical represent shown below in flowchart represents

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16. The C code 'for(;;)' represents an infinite loop. It can be terminated by _____
    a) Break
    b) Exit(0)
    c) Abort()
    d) Terminate

17. Which keyword can be used for coming out of recursion?
    a) Break
    b) Return
    c) Exit
    d) Both break and return

18. The keyword 'break' cannot be simply used within _____
    a) Do-while
    b) If-else
    c) For
    d) While

19. Which keyword is used to come out of a loop only for that iteration?
    a) Break
    b) Continue
    c) Return
    d) Skip

20. How many main() function we can have in our project?
    a) 0
    b) 1
    c) No limit
    d) Depends on compiler

21. How many times the for loop for(i=0;i=3;i++) will run?
    a) Four times
    b) Three times
    c) Forever
    d) Never

22. Continue statement cannot be used with
    a) For loop
    b) Switch
    c) Do loop
    d) While loop

23. The minimum execution of while loop is
    a) 0
    b) 1
    c) 2
    d) 3

24. Which for loop has range of similar indexes of 'i' used in for (i = 0;i < n; i++)?
    a) for (i = n; i>0; i–)
    b) for (i = n; i >= 0; i–)
    c) for (i = n-1; i>0; i–)
    d) for (i = n-1; i>-1; i–)

25. goto can be used to jump from main() to within a function.
    a) True
    b) False
    c) Depends
    d) Varies

26. Which loop is most suitable to first perform the operation and then test the condition?
    a) For loop
    b) While loop
    c) Do-while loop
    d) All of the above

27. What is the way to suddenly come out of or quit any loop in C?
    a) continue; statement
    b) break; statement
    c) leave; statement
    d) quit; statement

28. Which loop is fastest in C language?
    a) For
    b) While
    c) Do while
    d) All work at same speed

29. What is the output of a program?
    ```
    int main()
    {
    int a=25;
    while(a<=27)
    {
    printf("%d",a);
    a++;
    }
    return 0;
    }
    ```
    a) 25 25 25
    b) 25 26 27
    c) 27 27 27
    d) Compiler error

30. What is the output of the following

```
int main()
{
int k;
for(k=1;k<=5;k++);
{
printf("%d",k);
}
return 0;
}
```

    a) 1 2 3 4 5
    b) 1 2 3 4
    c) 6
    d) 5

31. What is function?
    a) Function is a block of statements that perform some specific task.
    b) Function is the fundamental modular unit. A function is usually designed to perform a specific task.
    c) Function is a block of code that performs a specific task. It has a name and it is reusable
    d) All the above

32. Main() is
    a) User-define function
    b) build-in function
    c) library function
    d) both a&b

33. Use of functions
    a) Helps to avoid repeating a set of statements many times
    b) Enhances the logical clarity of the program
    c) Makes the debugging task easier
    d) All of the above

34. Which of the following is a correct format for declaration of function?
    a) Return-type function-name(argument type);
    b) Return-type function-name(argument type){}
    c) Return-type (argument type)function-name;
    d) All of the mentioned

35. What is the scope of an automatic variable?
    a) Within the block it appears
    b) Within the blocks of the block it appears
    c) Until the end of program
    d) Within the block it appears & Within the blocks of the block it appears

36. Which of the following is a storage specifier?
    a) Enum
    b) Union
    c) Auto
    d) Volatile

37. Functions in C are always _____
    a) Internal
    b) External
    c) Both Internal and External
    d) External and Internal are not valid terms for functions

38. Global variables are _____
    a) Internal
    b) External
    c) Both Internal and External
    d) Both are not Internal and External

39. Which of the following is a User-defined data type?
    a) typedef int Boolean;
    b) typedef enum {Mon, Tue, Wed, Thu, Fri} Workdays;
    c) struct {char name[10], int age};
    d) all of the mentioned

40. In C, parameters are always
    a) Passed by value
    b) Passed by reference
    c) Non-pointer variables are passed by value and pointers are passed by reference
    d) Passed by value result

41. Which of the following is true about return type of functions in C?
    a) Functions can return any type
    b) Functions can return any type except array and functions
    c) Functions can return any type except array, functions and union
    d) Functions can return any type except array, functions, function pointer and union

42. What is the default return type if it is not specified in function definition?
    a) Void
    b) Int
    c) Short int
    d) Float

43. Pick the correct statements
    1) The body of a function should have only one return statement.
    2) The body of a function may have many return statements.
    3) A function can return only one value to the calling environment.
    4) If return statement is omitted, then the function does its job but returns no value to the calling environment.

    a) 1 & 2
    b) 1 & 3
    c) 2 & 3
    d) 2 & 4

44. Value of static storage variable
    a) Changes during different function calls
    b) persists between different function calls
    c) increases during different function calls
    d) decreases during different function calls

45. What is the initial value of extern storage class specifier?
    a) 0
    b) 1
    c) garbage
    d) infinite

46. Which is an indirection operator among the following?
    a) &
    b) *
    c) ->
    d) .

47. Which of the following does not initialize ptr to null (assuming variable declaration of a as int a=0;)?
    a) int *ptr = &a;
    b) int *ptr = &a – &a;
    c) int *ptr = a – a;
    d) All of the mentioned

48. Which of the following is the correct syntax to send an array as a parameter to function?
    a) func(&array);
    b) func(#array);
    c) func(*array);
    d) func(array[size]);

49. What will happen if in a C program you assign a value to an array element whose subscript exceeds the size of array?
    a) The element will be set to 0.
    b) The compiler would report an error.
    c) The program may crash if some important data gets overwritten.
    d) The array size would appropriately grow.

50. 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

51. The parameter passing mechanism for an array is
    a) call by value
    b) call by reference
    c) call by value-result
    d) depends on compiler

52. An array elements are always stored in _____ memory locations.
    a) Sequential
    b) Random
    c) Sequential and Random
    d) Depends on compiler

53. What is right way to initialization array?
    a) int num[6] = { 2, 4, 12, 5, 45, 5 } ;
    b) int n{} = { 2, 4, 12, 5, 45, 5 } ;
    c) int n{6} = { 2, 4, 12 } ;
    d) int n(6) = { 2, 4, 12, 5, 45, 5 } ;

54. Address stored in the pointer variable is of type _____.
    a) Integer
    b) Float
    c) Array
    d) Character

55. In order to fetch the address of the variable we write preceding _____ sign before
    variable name.
    a) Percent(%)
    b) Comma(,)
    c) Ampersand(&)
    d) Asteric(*)

56. Comment on this
    const int *ptr;
    a) You cannot change the value pointed by ptr
    b) You cannot change the pointer ptr itself
    c) Both (a) and (b)
    d) You can change the pointer as well as the value pointed by it

57. Choose the best one
    prior to using a pointer variable
    a) It should be declared.
    b) It should be initialized.
    c) It should be both declared and initialized.
    d) None of the above.

58. Which of the following statements are correct about the given program?

```
#include<stdio.h>
int main()
{
    printf("%p", main());
    return 0;
}
```

a) Prints garbage value infinite times

b) Error

c) Runs infinite times without printing anything

d) Depends on compiler

59. What is the maximun number of dimensions an array in C may have?

a) 2

b) 8

c) 16

d) Theoratically no limit. The only practical limits are memory size and compilers

60. Size of the array need not be specified, when

a) Initialization is a part of definition

b) It is a formal parameter

c) It is a declaration

d) All of the above

61. Which of the following are themselves a collection of different data types?

a) string

b) structures

c) char

d) all of the mentioned

62. Which operator connects the structure name to its member name?

a) –

b) <-

c) .

d) Both <- and .

63. What is typedef declaration?
    a) Does not create a new type
    b) It merely adds a new name for some existing type
    c) Does not create a new type, It merely adds a new name for some existing type
    d) None of the mentioned

64. 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) Biggest member in the union
    d) Sum of the sizes of all members

65. Members of a union are accessed as_____
    a) union-name.member
    b) union-pointer->member
    c) both union-name.member & union-pointer->member
    d) union-name%member

66. What do the 'c' and 'v' in argv stands for?
    a) 'c' means argument control 'v' means argument vector
    b) 'c' means argument count 'v' means argument vertex
    c) 'c' means argument count 'v' means argument vector
    d) 'c' means argument configuration 'v' means argument visibility

67. Which of the following true about FILE *fp
    a) FILE is a keyword in C for representing files and fp is a variable of FILE type.
    b) FILE is a stream
    c) FILE is a buffered stream
    d) FILE is a structure and fp is a pointer to the structure of FILE type

68. The first and second arguments of fopen() are
    a) A character string containing the name of the file & the second argument is the mode
    b) A character string containing the name of the user & the second argument is the mode
    c) A character string containing file pointer & the second argument is the mode
    d) all of the above

69. FILE is of type _____
    a) int type
    b) char * type
    c) struct type
    d) float *type

70. A data of the file is stored in …
    a) Ram
    b) Hard disk
    c) Rom
    d) Eprom

71. Select a function which is used to write a string to a file…
    a) fputs()
    b) fgets()
    c) fputc()
    d) fgetc()

72. What is the meant by 'a' in the following operation?
    fp = fopen("letsfindcourse.txt", "a");
    a) Attach
    b) Append
    c) Apprehend
    d) Add

73. What is the need for closing a file?
    a) fclose(fp) closes a file to release the memory used in opening a file.
    b) Closing a file clears Buffer contents from RAM or memory.
    c) Unclosed files occupy memory and PC hangs when on low memory.
    d) All the above

74. User-defined data type can be derived by_____
    a) struct
    b) enum
    c) typedef
    d) all of the mentioned

75. What is the first argument in command line arguments?
a) The number of command-line arguments the program was invoked with;
b) A pointer to an array of character strings that contain the arguments
c) Nothing
d) all of the above

B. Fill up the blanks

1. The sizeof(char) in a 32-bit C compiler is _____ byte.
2. All keywords in C are in _____ case letter.
3. C program execution begins from _____.
4. There are _____ keyword in C Programing.
5. Consider the following statement:
   a=10;
   b=++a;
   Then the value of b is _____.
6. A user defined data type, which is used to assign names to integral constants is called _____.
7. There are _____ different types loops in C.
8. The number of minimum execution of do…while loop is _____.
9. An _____ loop is a piece of coding that lacks a functional exit so that it repeats indefinitely.
10. A loop inside another loop is called a _____loop.
11. The function with no return type is declare as _____.
12. The initial value of register storage class is _____.
13. The function call itself is known as _____ function.
14. _____ method copies the address of an argument into the formal parameter.
15. The initial value of extern storage class is _____ zero.
16. Size of array in known at _____.
17. An array is a collection of data elements of the same _____.
18. _____ is a variable that store address of other variable.
    The first index of an array is _____.
19. "&" is called as _____ in pointer concept.
20. Typedef is used to create a _____ for an existing data type.
21. An array of similar data types which themselves are a collection of dissimilar data type are _____.
22. Structures which points to the same type of structures is known as _____.
23. _____ are arguments that are passed to the main function of the command prompt.
24. When fopen() is not able to open a file, it returns_____.

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KEY ANSWERS

A. Multiple Choice questions.

1. C   2. C   3. B   4. B   5. C   6. B   7. A
8. C   9. A   10. C   11. A   12. C   13. D   14. C
15. A   16. A   17. B   18. B   19. B   20. B   21. D
22. B   23. A   24. D   25. B   26. C   27. B   28. D
29. B   30. C   31. D   32. A   33. D   34. A   35. D
36. C   37. B   38. B   39. D   40. A   41. B   42. B
43. C   44. B   45. A   46. B   47. A   48. A   49. C
50. C   51. A   52. A   53. A   54. A   55. C   56. A
57. C   58. C   59. D   60. A   61. B   62. C   63. C
64. C   65. C   66. C   67. D   68. A   69. C   70. B
71. B   72. B   73. D   74. D   75. A

B. Fill up the blanks.

1. 1
2. lower
3. main()
4. 32
5. 11
6. enum
7. 3
8. 1
9. infinite loop
10. nested loop
11. void
12. garbage

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13. **recursive**
14. **call by refenrence**
15. **zero**
16. **Compile time**
17. **data type**
18. **pointer**
19. **zero**
20. **Address operator**
21. **synonyms**
22. **array of structure**
23. **self-referential structure**
24. **Command-line argument**
25. **NULL**