

Subject: **BCA**

Paper name: **Programming Language Through C**

Paper No: **BCA/2/CC/08**

Semester: **II Semester**

A. Multiple choice questions [75 (15 from each unit)]

1. C Language developed at _____
 - a) AT & T's Bell Laboratories at USA in 1972
 - b) AT & T's Bell Laboratories at USA in 1970
 - c) Microsoft in 1972
 - d) Cambridge University in 1970
2. C Programs are converted into machine language with the help of
 - a) An editor
 - b) An Operating System
 - c) A compile
 - d) An IDLE
3. C Variable cannot start with
 - a) Special symbol
 - b) Number
 - c) Underscore
 - d) Both A & B
4. Which of the following is not a reserve keyword for C
 - a) main
 - b) auto
 - c) register
 - d) default
5. Which of the following is not a correct variable type
 - a) int
 - b) double
 - c) float
 - d) real
6. What is the difference between a declaration and a definition of a variable
 - a) Both can occur multiple times, but a declaration must occur first
 - b) Both can occur multiple times, but a definition must occur first

- c) A declaration occurs once, but a definition may occur many times
 - d) A definition occurs once, but a declaration occurs many times
7. Which of the following type of operators have the highest precedence
- a) Arithmetic operators
 - b) Conditional operators
 - c) Logical operators
 - d) Relational operators
8. Which operator has the lowest priority
- a) ++
 - b) - -
 - c) ||
 - d) &&
9. What is sizeof()
- a) Function
 - b) Macro
 - c) Operator
 - d) Preprocessor
10. Which of the following is bitwise operator
- a) &&
 - b) ||
 - c) |
 - d) both a & b
11. Which of the following escape sequence is used to move the cursor to the next line on the screen
- a) \t
 - b) %d
 - c) \l
 - d) \n
12. Which of the following is used to read single character
- a) getchar()
 - b) getch()
 - c) getc()
 - d) get()

13. Which of the following header file contain mathematical function
- a) math.h
 - b) maths.h
 - c) string.h
 - d) conio.h
14. The size of short int is
- a) 16 bit
 - b) 8 bit
 - c) 4 bit
 - d) 1 bit
15. The size of char is
- a) 1 bit
 - b) 8 bit
 - c) 16 bit
 - d) 32 bit
16. Which of the following is an entry controlled loop statement
- a) do
 - b) if
 - c) else
 - d) while
17. Whats wrong in the following statement, provided k is a variable of type int
For (k=2, k<=10,k++)
- a) The variable k should be 0
 - b) There should be a semicolon at the end of the statement
 - c) The variable must always be the letter i
 - d) The comma should be a semicolon
18. What is the output of the program
- ```
#include <stdio.h>
Void main()
{
 int i;
 for (i = 1; i != 10; i += 2)
 printf(" BCA ");
}
```
- a) BCA BCA BCA BCA
  - b) BCA BCA BCA ... infinit time
  - c) BCA BCA BCA BCA BCA

d) BCA BCA

19. Choose the right statement

- a) Loops usually take advantage of loop counter
- b) Loop block executes a group of statements repeatedly
- c) Loop is usually executed as long as a condition is met
- d) All of the above

20. In the following loop construct, which one is executed only once always.

for(exp1; exp2; exp3)

- a) exp1
- b) exp2
- c) exp3
- d) none of the above

21. The continue statement cannot be used with

- a) for
- b) while
- c) switch
- d) if

22. Which loop is guaranteed to execute at least one time

- a) for
- b) while
- c) do while
- d) all of the above

23. For loop in a C program, if the condition is missing

- a) it is assumed to be present and taken to be false
- b) it is assumed to be present and taken to be true
- c) it result in a syntax error
- d) execution will terminated

24. If switch statement is used, then

- a) Default case must be present
- b) Default case, if used, can be place any where
- c) Default case, if used, should be the last case
- d) None of the above.

25. Which of the following is an invalid if-else statement

- a) if (funct(a)){ }
- b) if(if(a==4)){ }
- c) if(a){ }
- d) none of the above

26. What will be the output of the following

```
#include <stdio.h>
void main()
{
 int i=0;
 for (i<3;i++);
 printf("hello ");
}
```

- a) hello hello hello
- b) hello hello hello hello
- c) compile time error
- d) runtime error

27. What is the output of c program

```
void main()
{
 int a=21;
 while(a<=23)
 {
 printf("%d ",a);
 a++;
 }
}
```

- a)infinite loop
- b) 21 22 23
- c) 21 22
- d) runtime error

28. What is the output of c program

```
void main()
{
 int i=36
 do
 {
 printf("%d",i);
 }
```

```
 }
 while(i<=35);
}
```

- a) 36
- b) 35
- c) 36 35
- d) 35 36

29. Find the error in the following c program

```
void main()
{
 int m; char g;
 switch (m)
 {
 case 1: grade="p";break;
 case 2: grade="A";break;
 case 3: grade ="B";break;
 }
}
```

- a) case label cannot be number
- b) default is not present
- c) undefined symbol grade
- d) undefined symbol A

30. How many times will the following loop be executed

```
ch='b';
while(ch>='a'&&ch<='z')
```

- a) 0
- b) 24
- c) 25
- d) 26

31. Any C Program

- a) Needs input data
- b) Must contain at least one function
- c) Need not contain any function
- d) None of the above

32. How many values can a C function return at a time
- a) one
  - b) two
  - c) three
  - d) infinity
33. Types of C Function
- a) Library Function
  - b) User defined function
  - c) Both a and b
  - d) None of the above
34. Choose correct statements about C Language pass by value
- a) Pass by value copies the variable value in one more memory location
  - b) Pass by value does not use pointer
  - c) Pass by value protects source or original variable from changes in outside functions or called function
  - d) All of the above
35. The default parameter passing mechanism of c function is
- a) pass by value
  - b) pass by reference
  - c) pass by pointer
  - d) None of the above
36. The declaration  
void cal(int);  
indicate cal is the function which
- a) return nothing
  - b) has no arguments
  - c) both a and b
  - d) None of the above
37. Use of function
- a) make the debugging task easier
  - b) helps to avoid repeated programming across program
  - c) helps to avoid repeating a set of statements many times
  - d) All of the above

38. Pick the correct statements

- i. The body of a function should have only one return statement
  - ii. The body of a function may have many return statement.
  - iii. A function can return only one value to the calling environment
  - iv. If return statement is omitted, then the function does its job but return no value to the calling environment
- a) i and ii
  - b) i and ii
  - c) ii and iii
  - d) iii and iv

39. Which of the following function calculates the square of 'x' in c

- a) `sqr(x)`
- b) `pow(2,x)`
- c) `pow(x,2)`
- d) `power(2,x)`

40. Which function definition run correctly

- a) `int sum (int a, int b);retrun (a + b);`
- b) `int sum (int a, int b){ return (a+b);}`
- c) `int sum (a,b){return(a+b);}`
- d) none of the above

41. What is the output of this C code

```
int x = 5;
void main()
{
 int x = 3;
 m();
 printf("%d", x);
}
void m()
{
 x = 8;
 n();
}
void n()
{
 printf("%d", x);
}
```



- a) 8 3
- b) 8 5
- c) 3 8
- d) 5 3

42. What is the output of this program

```
#include<stdio.h>
int test()
{
 static int n = 10;
 return n--;
}
int main()
{
 for(test(); test(); test())
 printf("%d ", test());
 return 0;
}
```

- a) Infinite loop
- b) compilation error
- c) 741
- d) 852

43. Which of the following statements are correct about the function

```
long fun(int num)
{
 int i;
 long f=1;
 for(i=1; i<=num; i++)
 f = f * i;
 return f;
}
```

- a) Function calculate the value of 1 raise to power number
- b) Function calculate the square root of an integer
- c) Function calculate the factorial of an integer
- d) None of the above

44. In C, if you pass an array as an argument to a function, what actually gets passed?
- a) Value of an elements in array
  - b) First element of the array
  - c) Base address of the array
  - d) Address of the last element of the array
45. Forward declaration is absolutely necessary
- a) if a function returns a non-integer quantity
  - b) if the function call precedes its definition
  - c) if the function call precedes its definition and the function returns a non integer quantity
  - d) All of the above
46. What does the following declaration mean?
- ```
int (*ptr)[10];
```
- a) ptr is array of pointers to 10 integers
 - b) ptr is a pointer to an array of 10 integers
 - c) ptr is an array of 10 integers
 - d) ptr is a pointer to array
47. 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.
48. What is the maximum number of dimensions an array in C may have?
- a) one
 - b) two
 - c) three
 - d) Theoretically no limit. The only practical limits are memory size and compilers
49. 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 declaratrion
 - d) All of the above

50. The parameter passing mechanism of an array is
- a) call by value
 - b) call by reference
 - c) call by pointer
 - d) all of the above
51. Let x be an array. Which of the following operations is illegal?
- i) ++x.
 - ii) x+1.
 - iii) x++.
 - iv) x*2.
- a) i and ii
 - b) i, ii and iii
 - c) ii and iii
 - d) i, iii and iv
52. An array elements are always stored in _____ memory locations.?
- a) sequential
 - b) random
 - c) index
 - d) a and b
53. A pointer is
- a) A keyword used to create variables
 - b) A variable that stores address of other variable
 - c) A variable that stores address of an instruction
 - d) All of the above
54. 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*
55. Consider the declaration
- ```
int a = 5, *b = &a;
```
- The statement
- ```
printf("%d", a * b);
```
- prints
- a) garbage

- b) an error message
- c) a x address of b
- d) a x address a

56. Consider the following segment

```
char *a, *b, c[10], d[10];
```

```
a = b; b = c; c = d; d = a;
```

choose the statements having errors

- a) c = d; and d = a;
- b) a = b; and b = c;
- c) a = b; and d = a;
- d) no error

57. A pointer variable can be

- a) Passed to a function
- b) Changed within a function
- c) Can be assigned an integer value
- d) Returned by a function

58. What will be the output of the following program

```
#include<stdio.h>
```

```
int main()
```

```
{
```

```
    int i=3, *j, k;
```

```
    j = &i;
```

```
    printf("%d\n", i**j*i+*j);
```

```
    return 0;
```

```
}
```

- a) 30
- b) 9
- c) 29
- d) 27

59. The reason for using pointers in a Cprogram is

- a) Pointers allow different functions to share and modify their local variables.
- b) To pass large structures so that complete copy of the structure can be avoided.
- c) Pointers enable complex "linked" data structures like linked lists and binary trees.
- d) All of the above

60. Consider the statement, point out the correct answer.

```
const int *ptr;
```

- a) You cannot change the value pointed by ptr
- b) You cannot change the pointer ptr itself
- c) You can change the pointer as well as the value pointed by it
- d) Both (a) and (b)

61. Which of the following cannot be a structure member?

- a) Array
- b) Function
- c) Structure
- d) None of the above

62. Union differs from structure in the following way

- a) Union cannot have more members
- b) Only one member can be used at a time
- c) All members are used at a time
- d) Only one member can be used at a time

63. Size of a union is determined by 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

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

- a) char
- b) String
- c) Structure
- d) All of the above

65. Members of the union are accessed as _____

- a) union_name.member
- b) union_pointer->member
- c) both a and b
- d) none of the above

66. What is the output of this program

```
#include <stdio.h>
struct test {
    int x;
    char y;
} test;
int main()
{
    test.x = 10;
    test.y = 'A';
    printf("%d %c", test.x, test.y);
    return 0;
}
```

- a) Compilation error
- b) 10 A
- c) A 10
- d) None of the above

67. Which of the following are incorrect syntax for pointer to structure?

(Assuming struct temp{int b;} *my_struct;)

- a) *my_struct.b = 10;
- b) (*my_struct).b = 10;
- c) my_struct->b = 10;
- d) Both *my_struct.b = 10; and (*my_struct).b = 10;

68. The correct syntax to access the member of the ith structure in the array of structures is?

Assuming:

struct temp

```
{
    int b;
```

```
}s[50];
```

- a) s[i].b;
- b) s.[i].b;
- c) s.b[i];
- d) s.b[i];

69. Which of the following true about FILE *fp
- a) FILE is a structure and fp is a pointer to the structure of FILE type
 - b) FILE is a stream
 - c) FILE is a buffered stream
 - d) FILE is a keyword in C for representing files and fp is a variable of FILE type.
70. Which type of files can't be opened using fopen()?
- a) .txt
 - b) .c
 - c) .bin
 - d) None of the above
71. If there is any error while opening a file, fopen will return?
- a) Null
 - b) EOF
 - c) Nothing
 - d) 0
72. What Select a function which is used to write a string to a file...
- a) pits()
 - b) putc()
 - c) fputs()
 - d) fgets()
73. Which Is data type of file pointer
- a) File
 - b) int
 - c) char
 - d) float
74. The fseek function
- a) needs 3 arguments
 - b) makes the rewind function unnecessary
 - c) is meant for checking whether a given file exists or not
 - d) both a and b
75. What is the output of the following program
- ```
#include<stdio.h>
int main(){
 char c;
```

```
FILE *fp;
fp=fopen("demo.txt","r");
while((c=fgetc(fp))!=EOF)
 printf("%c",c);
fclose(fp);
return 0;
}
```

- a) It will print the content of file till it encounter new line character
- b) It will print the content of file demo.txt
- c) Compilation Error
- d) None of the above

**B. Fill up the blanks [15 (3 from each unit)]**

1. \_\_\_\_\_ is Father of C Language
2. Standard ANSI C recognizes \_\_\_\_\_ number of keywords
3. The \_\_\_\_\_ operators are used for testing the bits, or shifting tem right or left
4. \_\_\_\_\_ statement is used to skip the rest of the loop and carry on from the top of the loop again
5. \_\_\_\_\_ statement is used to exit the loop
6. The type of controlling expression of a switch statement cannot be of the type \_\_\_\_\_
7. A function which calls itself is called a \_\_\_\_\_ function
8. The keyword used to transfer control from a function back to the calling function is \_\_\_\_\_
9. A function that uses variable type is called \_\_\_\_\_ -
10. Array can be considered as set of elements stored in consecutive memory locations but having \_\_\_\_\_
11. Array is an example of \_\_\_\_\_ type memory allocation.
12. In order to fetch the address of the variable we write preceding \_\_\_\_\_ sign before variable name.
13. \_\_\_\_\_ operator connects the structure name to its member name
14. Fflush (NULL) flushes all \_\_\_\_\_
15. FILE is of type \_\_\_\_\_

**Key Answers**

**A. Multiple choice questions [replace x]**

1. a)                      2. c)                      3. d)                      4.a)                      5. d)                      6.c)                      7. a)



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|        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|
| 8. c)  | 9. c)  | 10. c) | 11. d) | 12. a) | 13. a) | 14. b) |
| 15. b) | 16. d) | 17. d) | 18. b) | 19. d) | 20. a) | 21. c) |
| 22. c) | 23. b) | 24. b) | 25. b) | 26. a) | 27. b) | 28. a) |
| 29. c) | 30. c) | 31. b) | 32. a) | 33. c) | 34. d) | 35. a) |
| 36. a) | 37. d) | 38. d) | 39. c) | 40. b) | 41. a) | 42. d) |
| 43. c) | 44. c) | 45. c) | 46. b) | 47. c) | 48. d) | 49. a) |
| 50. b) | 51. d) | 52. a) | 53. b) | 54. c) | 55. b) | 56. a) |
| 57. d) | 58. a) | 59. d) | 60. a) | 61. b) | 62. d) | 63. d) |
| 64. c) | 65. c) | 66. b) | 67. a) | 68. a) | 69.a)  | 70. d) |
| 71. a) | 72. c) | 73. a) | 74. d) | 75. b) |        |        |

**B. Fill up the blanks [replace x]**

1. Dennis Ritchie
2. 32
3. Bitwise
4. Continue
5. Break
6. float
7. Recursive
8. return
9. Variable function
10. Same data type
11. Compile time
12. Ampersand(&)
13. .
14. output stream
15. Struct type