

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

I B.TECH I SEMESTER MR15 Regulations

Subject: Computer Programming (Common for all branches)

II Mid Question Bank

MODULE-3

1. A _____ is a module or block of program code which deals with a particular task. []
 - a) Function
 - b) array
 - c) Data type
 - d) None
2. The default return type of a function is _____. []
 - a) void
 - b) int
 - c) float
 - d) char
3. Select the correct function declarations. []
 - a) int function (int a, b);
 - b) int funct(int a, int b)
 - c) int funct (int, int);
 - d) int funct (int ,);
4. Which of the following is not feasible in C Language? []
 - a) Functions with no arguments and no return values
 - b) Functions with arguments and return values
 - c) Functions with arguments and no return values
 - d) None
5. "Call by reference" function call uses _____ type of parameter. []
 - a) Pointer variables
 - b) Integer variables
 - c) Address variable
 - d) Memory variables
6. Recursion in functions is _____. []
 - a) A function calls the main function

- b) A function calls any of the system functions
- c) A function calls itself
- d) None of the above

7. _____ is not a storage class. []

- a) automatic
- b) external
- c) static
- d) dynamic

8. _____ keyword is used for declaring an external variable. []

- a) external
- b) extern
- c) auto extern
- d) ext

9. _____ type of variables remain alive for the entire life time of program []

- a) extern
- b) auto
- c) static
- d) register

10. The formal arguments in the function header must be prefixed by _____ indirection operator. []

- a) *
- b) +
- c) -
- d) /

11. _____ is optional in a function definition. []

- a) function name
- b) function type
- c) local variable declaration
- d) return statement

12. _____ keyword is used to transfer control from the current position to label. []

- a) switch
- b) goto
- c) go back
- d) return

13. Select the correct syntax to send an array as a parameter to a function. []

- a) `func(&array);`
 - b) `func(array);`
 - c) `func(*array);`
 - d) `func(array[size]);`
14. Select the syntax for declaration of a function is _____ []
- a) `return-type function-name(argument type);`
 - b) `return-type function-name(argument type){}`
 - c) `return-type (argument type)function-name;`
 - d) Both (A) and (B)
15. The default parameter passing mechanism is _____ []
- a) Call by value
 - b) Call by reference
 - c) Call by value result
 - d) None of above
16. Use of C Language functions _____ . []
- a) Helps to avoid repeating a set of statements many times
 - b) Enhance the logical clarity of the program
 - c) Helps to avoid repeated programming across program
 - d) All of above
17. Any C program consists of _____ . []
- a) at least one function
 - b) No Need of any function
 - c) input data required
 - d) None of above
18. Call by reference is also known as _____ . []
- a) Call by address or Call by location
 - b) Call by address or Call by value
 - c) Call by value or Call by name
 - d) None of above
19. The function return type cannot be _____ . []
- a) An array
 - b) Pointer
 - c) Structure
 - d) none

20. _____ is a storage class that allows storage in register rather than RAM. []
- a) auto
 - b) extern
 - c) register
 - d) static
21. Placing a semicolon at the end of _____ at function definition is illegal. []
- a) function declaration
 - b) function header
 - c) function call
 - d) none
22. _____ is not a built in function in the following C Library functions. []
- a) printf()
 - b) scanf()
 - c) main()
 - d) sqrt()
23. A function prototype declaration in main() is used in the _____. []
- a) start of the program
 - b) end of the program
 - c) middle of program
 - d) any where
24. Use of parameter names in the function declaration is _____. []
- a) mandatory
 - b) optional
 - c) default
 - d) none of above
25. The number of arguments in the function call and the function declaration is _____. []
- a) same
 - b) different
 - c) maybe same
 - d) may be different

Answers: 1.a 2.b 3.b 4.d 5.a 6.c 7.d 8.b 9.a 10.a
11.b 12.d 13.d 14.a 15.a 16.d 17.a 18.a 19.d 20.c
21.b 22.c 23.a 24.b 25.a

MODULE-4:

1. A _____ is a convenient tool for handling a group of logically related data items. []
 - a) Function
 - b) Pointer
 - c) Structure
 - d) Array
2. Structure is a _____ data type. []
 - a) Fundamental
 - b) Derived
 - c) User defined
 - d) None
3. _____ is an operator is used to access members in a structure. []
 - a) Dot operator or arrow operator
 - b) Arithmetic
 - c) Ternary
 - d) Binary operator
4. The output of the following C program is _____. []

```
#include<stdio.h>
#include<conio.h>
typedef struct{
    int a ;
} xyz;

void main()
{
xyz q;
clrscr();
q.a=9;
printf("\n %d", ++q.a);
}
```

 - a) 9
 - b) 10
 - c) 11
 - d) 12

5. The output of the following C program is _____ []

```
#include<stdio.h>
#include<conio.h>
struct student {
    int rollno;
    char name[25];
    int marks;
};

void main()
{
    struct student s1;
    printf("\n memory of s1= %d",sizeof(s1));
}
```

- a) 27 bytes
- b) 29 bytes
- c) 26 bytes
- d) 24 bytes

6. sizeof(s2)is _____ []

```
union student{
    int rollno;
    char name[25];
    int marks;
} s2;
```

- a) 4
- b) 8
- c) 12
- d) None

7. A structure within another structure is called _____ structure. []

- a) Loop
- b) Nested
- c) Extended
- d) None

8. The variable “hra” can be accessed using _____ []

```
struct salary
```

```

{
    char name[20];
    char dept[10];
    struct {
        int hra;
        int ta;
        int da;
    } allowance;
} emp;

```

- a) emp.salary.allowance
- b) emp.allowance.hra
- c) emp.name.hra
- d) None

9. Trace the output of program given below by considering input value as 70. []

```

#include<stdio.h>
struct marks{
    int sub1;
} *m1;
void main()
{
    printf("\n Enter marks");
    scanf("%d",&m1->sub1);
    printf("%d",m1->sub1);
}

```

- a) 70
- b) address of 70
- c) 89
- d) 69

10. Trace the output of give program _____. []

```

#include<stdio.h>
typedef struct stud{
    char * name;
    int roll;
} s;

```

```

int main(){
s arr[2]={{"CSE",10},{ "ECE",11}};
printf("%s %d",arr[0]);
return 0;
}

```

- a) CSE 10
- b) ECE 11
- c) CSE 11
- d) None

11. Which of the following cannot be a nested member in C language? []

- a) Another structure
- b) Function
- c) Array
- d) None

12. The output of the following C program is _____. []

```

#include <stdio.h>
struct student {
                int rollno;
                char name[20];
            }
void main() {
                struct student s;
                s.no = 8;
                printf("hello");
            }

```

- a) Compile time error
- b) Nothing
- c) hello
- d) Varies

13. The following C program output value is _____. []

```

#include <stdio.h>
void main() {
                struct student {
                                int no;

```



```
char name[20];
```

```
};
```

```
struct student s;
```

```
s.no = 8;
```

```
printf("%d", s.no);
```

```
}
```

a) Nothing

b) Compile time error

c) Junk

d) 8

14. Result for the following C program is _____.

[]

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

```
struct p {
```

```
int k;
```

```
char c;
```

```
};
```

```
int p = 10;
```

```
int main() {
```

```
struct p x;
```

```
x.k = 10;
```

```
printf("%d %d\n", x.k, p);
```

```
}
```

a) Compile time error

b) 10 10

c) Depends on the standard

d) Depends on the compiler

15. Trace the output of the c program _____.

[]

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

```
struct student {
```

```
char *name;
```

```
};
```

```
void main() {
```

```
struct student s, m;
```

```
s.name = "welcome";
```

```
m = s;  
printf("%s%s", s.name, m.name);
```

```
}
```

- a) Compile error
- b) Nothing
- c) Junk values
- d) welcomewelcome

16. _____ is the illegal operation in structures. []

- a) Typecasting of structure
- b) Pointer to a variable of same structure
- c) Dynamic allocation of memory for structure
- d) All the above

17. The C code has the statement like “a.b.c = 10” indicate that _____. []

- a) Syntax Error
- b) run time error
- c) Sematic error
- d) None

18. Size of a union is determined by size of the following _____. []

- 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

19. The following C program output is ____ []

```
#include <stdio.h>  
union xyz{  
    int ival;  
    float fval;  
} u;  
void main() {  
    printf("%d", sizeof(u));  
}
```

- a) 16
- b) 8
- c) 4
- d) 32

20. _____ is a set of adjacent bits whose size can be from 1 to 16 bits in length.

[]

- a) Bit fields
- b) Structure fields
- c) Union fields
- d) Pointer fields

21. Bit fields can only be declared as part of a structure_____.

[]

- a) false
- b) true
- c) Nothing
- d) Varies

22. 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 (a) and (b)

23. Select the correct output of C code.

[]

```
#include <stdio.h>  
struct temp {  
    int a;  
    } s;  
void change(struct temp);  
main()  
{  
s.a = 10;  
change(s);  
printf("%d\n", s.a);  
}
```

```
void change(struct temp s) {
    s.a = 1;
}
```

- a) Output will be 1
- b) Output will be 10
- c) Output varies with machine
- d) Compile time error

24. The correct syntax for declaring a string is _____ . []

```
string p = "HELLO";
```

- a) typedef char [] string;
- b) typedef char *string;
- c) Both (a) and (b)
- d) Such expression cannot be generated in C

25. _____ is the correct method for Initialization of string. []

```
typedef char *string;
```

- a) *string *p = "Hello";
- b) string p = "Hello";
- c) *string p = 'A';
- d) Not more than one space should be given when using typedef

26. The output of the following C program is ____

```
main( ) [     ]
```

```
{
int a[5]={10};
fun(a);
printf("%d",a[0]);
}
```

```
void fun( int *b)
{
*(b+0)=1;
*(b+1)=12;
}
```

- a) 12
- b) 10
- c) 1
- d) none

27. What is the output of the following C code is _____

```
main(){
int i=-5,j=-2;
fun(i,&j);
printf("i= %d j=%d\n",i,j);
}
void fun(inti,int *j)
{
i =i*i;
*j=*j * *j;
}
```

- a) i= -5 j=4
- b) i=25 j=4
- c) i= -5 j= -2
- d) i= 25 j= -2

28. The following C code output is _____

```
main(){ int a=10; int *p=&a; //let &a=1000;
printf("%d", *&*&*&*&*&*&*&*&*&*&*&*&*&*&*&*&a);
}
```

- a) 1000
- b) 10
- c) error
- d) none

29. After executing the following C code, output is _____

```
main(){ int a=10; int *p=&a; //let &a=1000;
printf("%d",*&*&*&*&*&*&*&*&*&*&*&*&*&*&*&p);} [ ]
```

- a) error
- b) 10
- c) 1000
- d) none

30. The following Code output is _____

```
main(){
int i=10;
int j=20;
```

```

int *p=&j;
p++;
printf("%d",*p);
}

```

\\ &i=1004 &j=1002

- a) 1004
- b) 1002
- c) 20
- d) 10

31. Interpret the declaration :int(*p)[10] and correct answer is _____ []

- a) p is a * to an array [10] int
- b) p is an of 10 * to int
- c) int of *p with size of 10 array
- d) pointer of int with array size 10

32. The output for the program given below is _____ . []

```

main()
{
int a=10;
int *p;
p=&a;
printf("%d",*p);
}

```

- a) 9
- b) 10
- c) a address value
- d) 12

33. A[i][j][k] represents expression is _____ []

- a) *(*A[i+j]*k)
- a) (**A[i+j]+k)
- c) (*(*(A+i)+j)+k)
- d) *A[i]*A[j][k]

34. The output of the following code is _____

```

int i; char b[]="d\bk";
for(i=2;i<4;i++)
printf("%c",*(b+i));

```

[]

- a) k
- b) %
- c) \b
- d) b

35. C code has the following statements expected output is _____

void main() []

```

{
  Int i =3,j=2,k;
  clrscr();
  mul(&i,&j);
  k=add(i,j);
  printf("K=%d",k);
  getch();
}

void mul(int *i, int *j) {
    *i=*i * *j;
}

int add(int i, int j)
{
    return i+j;
}

```

- a) K=7
- b) K=8
- c) K=9
- d) K=10

36. What will the value of * y_____

```

void main() [     ]
{
  int x[]={1,3,5,7,9};
  int *y;
  clrscr();
  y=x;
  y=y*2;
  printf("Value is %d",*y);
}

```

```
    getch();  
}
```

- a) value is 5
- b) value is 1
- c) value is 3
- d) value is 9

37. The c code string with following statements output is _____

```
char * string() [   ]  
{  
    char *str="MREC HYD";  
    return str;  
}  
void main()  
{  
    puts(string());  
    getch();  
}
```

- a) MREC HYD
- b) MREC
- c) HYD
- d) NONE

38. _____ pointer variable which does not contain a valid address. []

- a) dangling pointer
- b) null pointer
- c) primary pointer
- d) extra pointer

39. In a c Program pointer data type values what will the output _____. []

```
void main()  
{  
    int a=22;  
    int *b;  
    int **c;
```



```

b=&a;
c=&b;
printf(" %d", a+1);
printf(" %d", *(&a) - *b);
printf(" %d", **c);
getch();
}

```

- a) 23 0 22
- b) 22 22 22
- c) 23 23 23
- d) 22 0 23

40. In a C program after execution what will the output_____.

```

main( )
{
int u1 , u2;
int v = 3;
int *pv;
u1 = 2 * (v + 5 ) ;
pv = &v;
u2 = 2 * (*pv + 5 ) ;
printf("u1=%d u2=%d",u1,u2);
}

```

[]

- a) u1 = 16 u2 = 16
- b) u1 = 17 u2 = 17
- c) u1 = 17 u2 = 16
- d) u1 = 16 u2 = 17

41. Pointers are variables designed to hold _____ of variables.

[]

- a) address
- b) value
- c) size
- d) None

42. The _____ operator gives the address of a variable.[]

- a) &
- b) *

c) ->

d) None

43. The _____ operator is called as the indirection operator []

a) &

b) *

c) ->

d) none

44. The only integer that can be assigned to a pointer is _____. []

a) 0

b) 1

c) 2

d) none

45. A pointer that is declared to be _____ can be dereferenced. []

a) integer

b) void

c) float

d) none

46. void pointer is also called as _____ . []

A) universal pointer

B) generic pointer

C) both

D) none

47. The following C code has expected output is _____.

int main(void) []

```
{  
char*ptr = "Linux";  
printf(" [%c] ",*ptr++);  
printf(" [%c] ",*ptr);  
return 0;  
}
```

a) [L] [i]

b) [i] [n]

c) [L] [n]

d) [u] [x]

48. In the following C code output is _____.

```
void main(void) { [ ]
    int x[40];
    *(x + 0) = 65;
    printf(" %c ",*(x + 0));
}
```

a) D

b) B

c) C

d) A

49. In a C program has the following code what will be the output _____.

```
main() [ ]
{
char s[ ]="MRE";
int i=0;
printf("\n%c %c %c %c",s[ i ],*(s+i),*(i+s),i[s]);
}
```

a)MMMM

b)RRRR

c)EEEE

d)MMM

50. After executing the following C code output is _____.

```
main() [ ]
{
char *p;
p="Hello";
printf("%c ",*&*p);
}
```

A)H

C) o

B)e

D)l

MODULE.4 KEY:

1.C 2. C 3. A 4. B 5.B 6. A. 7. B. 8. B 9.A 10. A 11. B 12. A 13. D 14. B 15. D 16. A
17. A 18. C 19. C. 20. A 21. B. 22.A 23.B 24. B 25. B 26. C 27.A 28. B 29. C 30. D 31. A
32. B 33. C 34. A 35. B 36. A 37. A 38. A 39. A 40. A 41. A 42. A 43. B 44. A 45.B
46. C 47. A 48. D 49. A 50. A

MODULE-5

1. fopen() function is used to _____. []

- a) creates a new file for use
- b) opening an existing file
- c) deleting the existing file
- d) none of the above

2. which of the following is true for getc() function? []

- a) read a string from the file
- b) read a character from the file
- c) read a character from the console
- d) read a string from the console

3. _____ is the task performed for rewind function []

- a) set the file pointer to the end of the file
- b) set the file pointer to the beginning of the file
- c) set the file pointer to any desired position in the file
- d) erase all the file contents and place the file pointer at the beginning

4. _____ the functionality of “a+” file access. []

- a) open the file for appending data to it
- b) open the file in read-write mode for appending data to it
- c) append the contents of one file in to another
- d) none of the above

5. “putc()” function is used for the _____. []

- a) put one character at a time in to the file
- b) put one string at a time in to the file
- c) put one character at a time in to the console
- d) put one string at a time in to the console

6. _____ function is used to read an integer value from a file []

- a) getw()
- b) getc()
- c) gets()
- d) geti()

7. _____ is file-handling function used as analogous to the standard I/O function printf(.in file operations. []

- a) fprintf()
- b) fprintff()
- c) fprints()
- d) fprintfline()

8. End of file is represented by _____. []

- a) eof
- b) EOF
- c) '/0'
- d) any garbage value

9. _____ is a commonly used function for error-handling. []

- a) ferr()
- b) ferror()
- c) feof()
- d) None of the above

10. _____ is not a file access mode []

- a) r+
- b) w+
- c) a-
- d) a+

11. fclose() function used to _____. []

- a) creates a new file for use
- b) opening an existing file
- c) closes a file which has been opened for use
- d) none of the above

12. ftell() function declares that _____. []

- a) the current position in the file

- b) opening an existing file
 - c) closes a file which has been opened for use
 - d) none of the above
13. fscanf() function is used to perform _____ task. []
- a) the current position in the file
 - b) opening an existing file
 - c) reads a set of data values from a file
 - d) none of the above
14. The rewind() function performs _____. []
- a) the current position in the file
 - b) the position to the beginning of the file
 - c) reads a set of data values from a file
 - d) none of the above
15. “r” mode in file operations is used to _____. []
- a) open the file for reading only
 - b) the position to the beginning of the file
 - c) reads a set of data values from a file
 - d) none of the above
16. “r+” mode file operation is used to _____. []
- a) the existing file is opened to the beginning for both reading and writing
 - b) the position to the beginning of the file
 - c) reads a set of data values from a file
 - d) none of the above
17. _____ is the type and value of EOF. []
- a. int,0
 - b. int,1
 - c. int,-1
 - d. char,1
18. _____ is file access mode that is used for both reading and writing . []
- a. w+
 - b. w-

c. a+

d. None of the above

19. _____ is purpose of getw()operation. []

a. reading and writing an integer to a file.

b. the position to the beginning of the file

c. reads a set of data values from a file

d. none of the above

20. _____ is the operation of fseek() []

a. reading and writing an integer to a file.

b. to move to any desired location in a file

c. reads a set of data values from a file

d. none of the above

21.EOF is used for _____ . []

a.end of file

b.start of file

c.both a and b

d.none

22.getc(. function is used to _____. []

a.read a character from keyboard

b. read a character from a file

c. both a and b

d.none

23. Open the file for writing only using _____ mode. []

a. r

b. w

c. a

d. none

24.To open a file _____ function is used. []

a) fclose(.

b) fopen(.

c) both a and b

d) none

25.To close a file the following _____ function will be used.[]

a) fclose()

- b) fopen()
- c) both a and b
- d) none

26. For binary search the average case time complexity is _____. []

- a) $O(n)$
- b) $O(n^2)$
- c) $O(n \log n)$
- d) $O(\log n)$

27. The time complexity of binary search in best case is _____. []

- a) $O(1)$
- b) $O(n^2)$
- c) $O(n \log n)$
- d) $O(\log n)$

28. The binary search algorithm worst case time complexity is _____. []

- a) $O(n)$
- b) $O(n^2)$
- c) $O(n \log n)$
- d) $O(\log n)$

29. _____ is time complexity of linear search in average case. []

- a) $(n+1)/2$
- b) n^2
- c) n
- d) 1

30. The linear search best case time complexity is _____. []

- a) $(n+1)/2$
- b) n^2
- c) n
- d) 1

31. _____ is the time complexity of linear search in worst case. []

- a) $(n+1)/2$
- b) n^2
- c) n

d) 1

32. Binary search is effective only when the elements are in _____. []

- a) ascending order
- b) descending order
- c) a and b
- d) jumbled order

33. Linear search is also called as _____. []

- a) binary search
- b) sequential search
- c) both a and b
- d) none

34. Bubble sort's space complexity is _____. []

- a) $O(1)$
- b) $O(n)$
- c) $2n/n+1$
- d) $(n(n+2))/n$

35. The time complexity of bubble sort in best case is _____. []

- a) $O(n)$
- b) $O(n^2)$
- c) $O(n \log n)$
- d) $O(\log n)$

36. Selection sort's best case time complexity is _____. []

- a) $O(n)$
- b) $O(n^2)$
- c) $O(n \log n)$
- d) $O(\log n)$

37. _____ is the insertion sort algorithm's best case time complexity is []

- a) $O(n)$
- b) $O(n^2)$
- c) $O(n \log n)$
- d) $O(\log n)$

38. _____ is the time complexity of bubble sort in worst case []

- a) $o(n)$
- b) $O(n^2)$

c) $O(n \log n)$

d) $O(\log n)$

39. The selection sort's worst case time complexity is _____. []

a) $O(n)$

b) $O(n^2)$

c) $O(n \log n)$

d) $O(\log n)$

40. The insertion sort's worst case time complexity is _____. []

a) $O(n)$

b) $O(n^2)$

c) $O(n \log n)$

d) $O(\log n)$

41. _____ is the space complexity of selection sort. []

a) $O(1)$

b) $O(n)$

c) $O(n \log n)$

d) $O(\log n)$

42. _____ is the best searching technique among the following []

a) binary search

b) linear search

c) both a and b

d) none

43. The another name of selection sort is _____. []

a) Merge sort

b) push down sort

c) quick sort

d) insertion sort

44. Which of the following sorting algorithm is of priority queue sorting type _____. []

a) Bubble sort

b) Insertion sort

c) Merge sort

d) Selection sort

45. Binary search algorithm cannot be applied to _____. []

a) sorted linked list

- b) sorted binary trees
 - c) sorted linear array
 - d) pointer array
46. The worst case occur in linear search algorithm when _____ . []
- a) Item is somewhere in the middle of the array
 - b) Item is not in the array at all
 - c) Item is the last element in the array
 - d) Item is the last element in the array or item is not there at all
47. Example of insertion sort occurs when _____ . []
- a) playing cards
 - b) playing caroms
 - c) playing tennis
 - d) playing cricket
48. Searching is a method of _____ . []
- a) finding an element
 - b) arranging elements in order
 - c) both a and b
 - d) none
49. Sorting is process that _____. []
- a) finding an element
 - b) arranging elements in order
 - c) both a and b
 - d) none
50. Efficiency is represented by the _____ notation . []
- a) big O
 - b) small o
 - c) both a and b
 - d) none

MODULE-5 KEY.

**1.A 2. B 3.B 4. A 5.A 6.A 7.B 8.B 9.B 10.C 11.C 12.A 13.C 14. B 15.A 16.A 17.C 18.A 19.A 20. B
 21.A 22.B 23.B 24.B 25.A 26.D 27.A 28.D 29.A 30.D 31.C 32.A 33.B 34. A 35.A 36.B
 37.A 38.B 39.B 40. B 41.A 42.A 43.B 44.D 45.D 46. D 47.A 48.A 49. B 50.A**