SIDDHARTH GROUP OF INSTITUTIONS :: PUTTUR
Siddharth Nagar, Narayanavanam Road – 517583

QUESTION BANK (DESCRIPTIVE)

Subject with Code :CP(16CS501)**Course & Branch**: B.Tech–Common to all**Year &Sem:** I-B.Tech& I-Sem**Regulation:**R16

UNIT –I

Overview of Computers and Programming

1. Write an algorithm,flowchart and C program to find the sum of numbers from 1 to 'n' [10]
2. Apply software development method on finding the roots of a quadratic equation.[10]
3. Write detailed notes on C data types. [10]
4. Discuss about the following operators in C language with example. [4+3+3]
   a. Bitwise operators
   b. Increment and decrement operators
   c. Logical operators
5. Perform the following operations [2+2+2+2+2]
   a. 23>>3 b. 27<<2 c. 15&9 d. 15^9 e. 15 | 9
6. (a) Write the structure of C program and explain. [5+5]
   (b) Draw the flow chart to find the roots of a quadratic equation for all the cases.
7. (a) Define algorithm. Write algorithm for finding factorial of a number. [4+6]
   (b) What is flowchart? Explain different symbols used for flowchart.
8. (a) What is constant? Explain different constants in C. [6+4]
   (b) What is variable? Give the rules for variable declaration.
9. (a) Write an algorithm and flowchart to generate Fibonacci series of numbers up to 'n'.
   (b) Write an algorithm and flowchart to find whether the given number is prime or not. [5+5]
10. (a) Draw the flow chart to find the root of a quadratic equation for all the cases.[5+5]
    (b) Write a Cprogram to find the roots of a quadratic equation for all the cases.

UNIT-II

Decision and Loop Control Statements

1. Explain various branching statements in C with examples. [10]
2. (a) Write and explain about switch statement. [4+6]
   (b) Write a Program to perform arithmetic operations using switch.
3. List and explain loop control (or) iteration statements in C. [10]
4. (a) Write and explain syntax of "for" loop. [3+7]
   (b) Write a program to generate prime numbers between 1 and 'n'.
5. (a) Explain goto statement. Why should we avoid using "goto" statement in programming? [5+5]
   (b) Write a program to check whether the given number is "Even" or "Odd" using GOTO statement.
6. List and explain unconditional statements in C with examples. [10]
7. (a) Write a program to find sum of the individual digits of a given number. [5+5]
   (b) Write a program to check whether the given number is palindrome or not.
8. (a) Write a program to check whether the given number is Armstrong or not. [5+5]
   (b) Write a program to generate 'n' Fibonacci numbers.
9. (a) write a program to find sum of the series $1+2^2+3^2+\ldots+n^2$ [5+5]
   (b) Write a program to generate Pascal triangle.
10. Write a program to calculate gross salary for the conditions given below [10]

Basic salary(Rs.)	DA(Rs.)	HRA(Rs.)	Conveyance(Rs.)
>=5000	110% of basic	20% of basic	500
Bs>=3000 and Bs<5000	100% of basic	15% of basic	400
Bs<3000	90% of basic	10% of basic	300

UNIT-III

Arrays and Strings

1. (a) Define an array. How to initialize one-dimensional array? Explain with suitable examples. [5+5]
   (b) Write a C program to sort the given array elements in Ascending order.
2. (a) How to declare and initialize a Two-dimensional array? Discuss with examples. [5+5]
   (b) Write a C program to print the Multiplication Table for numbers 1 to n using two dimensional arrays.
3. Write a C program to multiply two matrices of different order. [10]
4. (a) Write a C program to read and display a 3 by 3 matrix. [5+5]
   (b) Write a C program to add 2 matrices of size n by n.
5. (a) Illustrate multidimensional arrays with example program. [5+5]
   (b) Write a C program to find the largest element given in an array of elements.
6. (a) Write a C program to find the length of a string and reverse the given string without using string handling functions. [5+5]
   (b) Write a C program to read the elements in an array and print the same in reverse order.
7. (a) Write a C program to implement strcmp() , strcat() , strcpy() and strlen(). [5+5]
   (b) Write a program to find the average marks obtained by a class of 50 students in a test.
8. (a) Explain declaration and initialization of array of strings. [4+6]
   (b) Write a C program to find whether a given string is palindrome or not.
9. (a) Discus about arithmetic operations on characters. [5+5]
   (b) Write a C program to read a set of strings and sort them in alphabetical order.
10. Explain the following string handling functions with example: [10]
    a. strcpy() b. strcmp() c. strcat() d.strlen() e. strncat()

UNIT-IV

Functions and Pointers

1. (a) What are the advantages of functions? [3+7]
   (b) Write a C program using function to exchange two numbers using pointers.
2. (a) Discuss about the different categories of functions. [5+5]
   (b) Write a C program to illustrate call-by-value parameter passing technique.
3. (a) Write short notes on nested functions. [4+6]
   (b) Write a C program to explain call-by-reference parameter passing technique.
4. (a) What is recursion? What are the advantages and Disadvantages of recursion? [4+6]
   (b) Write a C program to find the GCD of 2 numbers using recursion.
5. Distinguish between the following: [4+3+3]
   a. Actual and formal arguments
   b. Global and local variables
   c. Automatic and static variables

6. (a) How to access a structure member using pointers, explain with example. [5+5]
   (b) Write a C program to illustrate the use of indirection operator to access the value pointed by a pointer.
7. (a) What is a pointer? What are the features of pointers? Write a C program to print address of a variable [6+4]
   (b) Explain the declaration of pointers and pointer to pointer with examples.
8. (a) With proper examples explain different arithmetic operations on pointers. [6+4]
   (b) Write a C program to show that pointer of any data type occupies same space.
9. Explain the following C dynamic memory allocation functions with syntax and example :
   a. malloc() b. calloc() c. realloc() d. free() [10]
10. (a) Explain the concept of array of pointers with examples. [4+6]
    (b) Write a C program to read and print an array of elements using pointers.

UNIT-V

Structures and File Management in C

1. (a) Define Structure and write the general syntax for declaring and accessing members.
   (b)How to copy and compare structure variables? Illustrate with example. [5+5]
2. Write a C program that defines a structure **employee** containing the details such as **empno, empname, department name and salary**. The structure has to store 20 employees in an organization. Use the appropriate method to define the above details and define a function that will display the contents? [10]
3. (a) Explain the following: [6+4]
   i. Nested structures ii. Array of structures
   (b) Write a C program to read and display student details using structure.
4. (a) Define union. Give the general template for union. [4+6]
   (b) List out the differences between unions, structures and arrays
5. (a) How data elements are stored under unions, explain with example? [5+5]
   (b) Write a C program to illustrate the concept of structure within structure.
6. (a) Write the syntax for opening a file with various modes and closing a file. [4+6]
   (b) Explain the following file handling functions:
   a. fseek() b. ftell() c. rewind() d. feof()
7. (a) Write a C program to display the contents of the file in reverse order. [5+5]
   (b) Write a C program to copy the contents from one file to another file.
8. Write a C program to count no.of characters, spaces, lines, words of a file. [10]
9. (a) Discuss command line arguments in detail with examples. [5+5]
   (b) Write a short notes on
   i. fgets() ii. fputs()
10. (a) Explain the following preprocessor directives: [4+6]
    i. #include ii. #define
    (b) Write a program in C that reads the name of a file and displays the contents of the file on the user screen.

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QUESTION BANK (OBJECTIVE)

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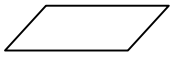
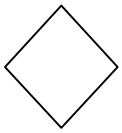
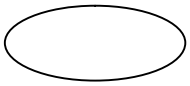
UNIT– I
Overview of Computers and Programming

1. Which of the following is used to perform computations on the entered data? [ ]
   A) Memory B) Processor C) Input device D) Output device
2. Which of the following is not an input device? [ ]
   A) Plotter B) Scanner C) Keyboard D) Mouse
3. Which of the following is not an output device? [ ]
   A) Plotter B) Scanner C) Printer D) Speaker
4. Which of the following is used as a primary memory of the computer? [ ]
   A) Magnetic storage device B) RAM
   C) Optical storage device D) Magneto-optical storage device
5. Which one of the following is a volatile memory? [ ]
   A) RAM B) Auxiliary memory C) ROM D) Secondary memory
6. Software is defined as [ ]
   A) Set of memory cells B) Set of Programs C) Set of hardware D) None
7. SDLC stands for [ ]
   A) Software design life cycle B) Software Development Life Cycle
   C) System Design Life Cycle D) System Design Life Cycle
8. _____symbol is used for input/output in flowchart [ ]
   A)  B)  C)  D) 
9. Which of the following is defined as a computer program for performing a particular task on the computer system? [ ]
   A) Hardware B) Software C) Processor D) Memory
10. Among the following, which converts assembly language into machine language [ ]
    A) Interpreter B) Compiler C) Assembler D) Algorithm
11. Which one of the following is known as the “language of computer”? [ ]
    A) Programming language B) High-level language
    C) Machine language D) Assembly language
12. _____ translates high level language into machine language [ ]
    A) Compiler B) Translator C) Processor D) Loader
13. Which of the following is not a valid variable declaration [ ]

A) int 2class; B) int class2; C) int class_2; D) int ELSE;

14. The range of "unsigned int" data type is____ [ ]
A) -32768 to 32767 B) 0 to 65535 C) -65536 to 65535 D) -128 to 127
15. The size of "long double" data type in 16-bit machine is _____ [ ]
A) 8 bytes B) 10 bytes C) 2 bytes D) 4bytes
16. The range of "char" data type is ____ [ ]
A) -128 to 127 B) 0 to 255 C) -32768 to 32767 D) None
17. The size of "char" data type is ____ [ ]
A) 1 byte B) 2 bytes C) 4 bytes D) 10 bytes
18. The format specifier that is used to read or write a character is _____ [ ]
A) %f B) %d C) %c D) %s
19. Which one of the following is a string constant [ ]
A) '3' B) "hello" C) 30 D) None
20. If no precision is specified for floating point number then printf() prints _____ decimal positions. [ ]
A) Two B) Four C) Six D) Zero
21. What is the result of 8 | 4 ? [ ]
A) 0 B) 1 C) 4 D) 12
22. Which of the following operator is used to combine two or more relational expressions [ ]
A) ^ B) ~ C) & D) &&
23. ~(100111) gives _____ [ ]
A) 010010 B) 011000 C) 010100 D) 111001
24. 10<<3 gives _____ [ ]
A) 40 B) 1 C) 80 D) 30
25. Shifting a number 'n' by 's' bits to left is equivalent to which of the following? [ ]
A) $2^s/n$ B) $n/2^s$ C) s^2/n D) $n*2^s$
26. Shifting a number 'n' by 's' bits to right is equivalent to which of the following? [ ]
A) $2^s/n$ B) $n/2^s$ C) s^2/n D) $n*2^s$
27. Based on the precedence levels and associativity the 8+4*5+6/2 expression yields [ ]
A) 43 B) 34 C) 31 D) 41
28. _____operators are used for shifting bits to right and left [ ]
A) >> and << B) > and < C) ?and : D) None
29. The expression a++ is referred as [ ]
A) Pre increment B) Post increment C) Before increment D) After increment
30. The expression ++a referred as [ ]
A) Pre increment B) Post increment C) Before increment D) After increment

31. If a=3, b=5 the value of the expression ++a+b++ is____ [ ]
A) 10 B) 9 C) 8 D) None of the above
32. _____ defines the order of evaluation when operators have the same precedence[ ]
A) Priority B) Precedence C) Associativity D) None of the above
33. Which one of the following is having highest precedence [ ]
A) ++ B) && C) ( ) D) ,

34. Which one of the following is having least precedence [ ]
A) ++ B) && C) ( ) D) ,
35. String constants are enclosed in [ ]
A) ‘ ‘ B) “ “ C) ( ) D) [ ]
36. Character constants are enclosed in [ ]
A) ‘ ‘ B) “ “ C) ( ) D) [ ]
37. The escape sequence character __causes the cursor to move to the next line on the screen [ ]
A) \t B) \n C) \r D) \v
38. The assignment statement “sum=sum+i;” is equivalent to [ ]
A) sum=+i; B) sum+=i; C) sum= =sum+i; D) None
39. Sizeof() operator returns the size of an operand in _____ [ ]
A) Bits B) Nibble C) Bytes D) None
40. Which of the following is the correct way of using type casting [ ]
A) c=(int)a/b; B) c=a(int)/b; C) c=int a/b; D) None

UNIT-II

Decision and Loop Control Statements

1. Which of the following is not a loop structure? [ ]
A) for B) do-while C) repeat-until D) while
2. If statement is a ————statement [ ]
A) One-way decision B) Multi-way decision C) Two way decision D) Loop construct
3. ‘break’ statement in a loop is used for [ ]
A) Terminating the loop B) De-allocating memory
C) Terminating the program D) Terminating the function
4. The keyword “else” can be used with [ ]
A) for statement B) do.. while ( ) statement C) if statement D) switch ( ) statement
5. The two different ways to implement a multiway selection in C are [ ]
A) Simple if and if-else B) if-else and nested if-else
C) else-if ladder and switch D) None
6. The minimum number of time that a do-while loop executes [ ]
A) 0 B) 1 C) infinitely D) variable
7. The while loop is terminated when the conditional expression returns [ ]
A) 1 B) 2 C) 3 D) Zero
8. C provides _____ as a convenient alternative to the traditional if-else for two way selection. [ ]
A) Conditional operator B) Short hand assignment C) Increment D) None
9. The statement used to send back any value to the calling function is [ ]
A) break B) continue C) exit D) return
10. The _____ statement is used to skip the remaining part of the statements in a loop and continue with next iteration. [ ]

A) break B) goto C) continue D) exit

11. _____should be avoided as part of structured programming approach [ ]

A) break B) goto C) continue D) exit

12. The minimum number of times "for" loop executes [ ]

A) 2 B) can't be predicted C) 0 D) 1

13. What will be output when you will execute following c code? [ ]

```
void main()
{   int fruit=1;
    switch(fruit+2)
    {
        default:printf("apple");
        case 4: printf(" banana");
        case 5: printf(" orange");
        case 8: printf(" grape");
    }
}
```

A) apple banana orange grape B) grape C) orange D) banana orange grape

14. 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–)

15. What will be output when you will execute following C code? [ ]

```
void main()
{
    int check=2;
    switch(check)
    {
        case 2: printf("1");
break;
        case 3: printf(" 2");
    break;
    }
}
```

A) 12 B) 2 C) 1 D) Compilation error

16. Which one among the following is the correct syntax of for loop? [ ]

A) for(i=0;i<n; i++); B) for(i<n; i=0; i++);

C) for(i=0; i<n: i++); D) None

17. 'for' loop in C program , if the condition is missing [ ]

A) Assumed to be present and taken to be false

B) Assumed to be present and taken to be true

C) Syntax error

D) Execution will be terminated abruptly

18. If c is initialized to 1, how many times following loop is executed [ ]

```
While((c>0)&&(c<60))
{       c++;    }
```

A) 60 B) 59 C) 61 D)1

19. The library function exit () causes an exit from [ ]

A) loop B) block C)function D) None

20. break statement can use with [ ]

i) loop ii)switch iii) block

A) onlyi,ii B) only ii,iii C) only i, iii D) All

21. What is the output of this C code? [ ]

```
int main()
  {
while ()
printf("In while loop ");
printf("After loop\n");
  }
```

A) In while loop after loop B) After loop C) Compile time error D) Infinite loop

22. Which among the following is not checked in switch case [ ]

A) character B) integer C) float D) None

23. What is the output of the following program [ ]

```
main()
{
        int i;
        for(i=1;i<5;i++)
        {       if(i==3)
                        break;
                Printf("%d",i);
        }
 }
```

A) 12345 B)124 C)1245 D)12

24. What is the output of the following program [ ]

```
main()
{       int i;
        for(i=1;i<5;i++)
        {
                if(i==3)
                        continue;
                Printf("%d",i);
        }
 }
```

A) 12345 B)124 C)1245 D)12

25. What are the entry controlled loops among the following [ ]

i. while ii. Do-while iii. For

A) only I B) only ii,iii C) only iii D) only i, iii

26. What is the output of the following program? [ ]

```
main()
{
        int i=1;
        while(i<=5)
                printf("%d",i);
}
```

A) 12345 B)1234 C) 2345 D) Leads to infinite loop

27. for(;;) can be terminated by [ ]

A) break B) exit(0) C) return D) All the above

28. What is the output of the following program [ ]

```
main()
{
        for(i=1;i<=5;i++);
                printf("%d",i);
}
```

A) 12345 B)1234 C) 6 D) leads to infinite loop

29. What is the correct syntax of for loop [ ]

A) for(i=0;i<n;i++){ } B) for(i<n;i=0;i++){ }

C) for(i=0;i<n:i++){} D) for(i=0:i<n:i++){ }

30. Array is an example of which of the following? [ ]

A) Derived types B) Fundamental types C) User-defined types D) None

31. Which of the following is used to display a string on the screen? [ ]

A) %s B) %c C) %d D) %f

32. What is the final value of x when the code int x; for(x=0; x<10; x++) {} is run? [ ]

A) 10 B) 9 C) 0 D) 1

33. Which of the following is exit controlled loop [ ]

A) for B) while C) do-while D) None

34. The default statement is executed when [ ]

A) All the case statements are false B) One of the case is true

C) One of the case is false D) None

35. How many times the following C code prints "Hello" [ ]

```
int main()
  {
while (1)
printf("Hello ");
  }
```

A) One B) zero C) Infinite D) Produce error

36. How many times the following C code prints "Hello" [ ]

```
int main()
  {
do
```

```
{
printf("Hello ");
}while(0);
}
```

A) One B) zero C) Infinite D) Produce error

37. How many bytes the array **price** occupies. float price[10]; [ ]

A) 10 bytes B) 4 bytes C) 40 bytes D) 20 bytes

38. Which of the following is syntactically correct? [ ]

A) for(); B) for(;); C) for(,); D) for(;;);

39. What is the output of the following code [ ]

```
main()
{
    int a= 0,b = 20;
    char x =1,y =10;
    if(a,b,x,y)
        printf("hello");
}
```

A) Syntax error B) hello C) 10 D) None

40. _____ is used to terminate from the entire program [ ]

A) return B) break C) exit D) goto

UNIT-III

Arrays and Strings

1. Array is an example of which of the following? [ ]

A) Derived types B) fundamental types C) user-defined types D) None

2. Array elements are stored in [ ]

A) Scattered memory locations B) Sequential memory locations

C) Direct memory locations D) None

3. int a[10] will reserve how many locations in the memory? [ ]

A) 10 B) 9 C) 11 D) None of the above

4. Which one of the following is the correct syntax for initialization of one-dimensional arrays? [ ]

A) intnum[3]={0 0 0}; B)intnum[3]={0,0,0};

C)intnum[3]={0;0;0}; D) intnum[3]=0;

5. Under which of the following conditions, the size of the array need not be specified? [ ]

A) When the compiler is smart B) When initialization is a part of definition

C) Both D) None

6. Which of following is correct array declaration [ ]
   A) intnum(25); B) int array num[25]; C) intnum[25]; D) num[25];
7. Array subscripts in 'C' starts from [ ]
   A) 0 B) compiler dependent C) 1 D) -1
8. Array elements are stored in [ ]
   A) Column major order B) in diagonal order
   C) Row major order D) either in row major or column major order
9. Which of the following statements is used to read a string of characters into the array **words**? [ ]
   A) scanf("%d", words); B) scanf("% \n", words);
   C) scanf("%s", words); D) scanf(" %c", words);
10. A string constant is one dimensional array of characters terminated by a [ ]
    A) Comma B) Full stop C) Semicolon D) Null character ('\0')
11. Which of the following multi-dimensional array declaration is correct for realizing a 2 X 3 matrix [ ]

A) int m[2][3]; B) int m[3][2]; C) int m[3],m[2]; D) None

12. Which of the following is the correct syntax for initialization of two-dimensional arrays? [ ]
    A) table[2][3]={0,0,0,1,1,1} B) table[2][3]={{0,0,0,}{1,1,1}}
    C) table[2][3]={0,1},{0,1}{0,1} D) None
13. What will be assigned for marks[3] and marks[4] in the following initialization [ ]
    int marks[5]={30,45,80};
    A) 80 and garbage B) garbage and garbage C) 0 and 0 D) None
14. Which of the following is correct initialization of string TITAN [ ]
    A) char name[ ]="TITAN\0" B) char name[10]="TITAN\0"
    C) char name[ ]="TITAN" D) char name[10]={"TITAN"}
15. Which of the following initialization is wrong [ ]
    A) x[5]=15 B) x[10.3]=30 C) x[0]=20 D) None
16. char ch[ ]={'a','b','c','\0'}; [ ]
    int sum=ch[1]+ch[2];
    What is the value of sum?
    A) 195 B) 197 C) ab D) error
17. What happens if we initialize an array as int group[20]={0}; [ ]
    A) Produce an error B) Only 0^{th} element is initialized with zero
    C) Every element is initialized with zero D) None
18. To store a table of values which of the following is used [ ]
    A) One dimensional array B) Two dimensional array
    C) Three dimensional array D) None
19. int rank[3]={3,2,4,1,5}; [ ]
    A) Compile time error

B) Initializes only 3 elements with first 3 values

C) Initializes only 3 elements with last 3 values D) Initialize all elements with zeros

20. How to refer an element in i^{th} row j^{th} column of a two dimensional array [ ]

A) x[i,j] B) x[i][j] C) x[ij] D) x[i]x[j]

21. Which one of the following is a string constant [ ]

A) '3' B) "hello" C) 30 D) None

22. Which of the following is used to display a string on the screen? [ ]

A) %s B) %c C) %d D) %f

23. Which of the following is used to determine the length of a string? [ ]

A) strlen B) strcmp C) strcpy D) strcat

24. Which of the following is the correct syntax for copying a string S1 into S2? [ ]

A) strcpy(S2,S1); B) strcpy(S1,S2); C) strcmp(S1.S2); D) strcmp(S2,S1);

25. The function **strcat(S2,S1)** appends ____ to _____ [ ]

A) S1,S2 B) S2,S1 C) S2,S2 D) S1,S1

26. Which of the following is used to read a string [ ]

A) getchar() B) gets() C) getstr() D) getch()

27. Which function is used to search for a substring in a string? [ ]

A) strchr B) strstr C) strspn D) strcpy

28. How many arguments that the strcmp() function can take? [ ]

A) 2 B) 3 C) 4 D) 0

29. What will be the result of the following character arithmetic expression? [ ]

X='A'-2

A) 63 B) 64 C) 65 D) 66

30. Which of the following header file is required for performing string operations [ ]

A) stdio.h B) conio.h C) string.h D) ctype.h

31. Which function is used to count and return the number of characters in a given string [ ]

A)strcmp() B) strlen() C) strrev() D) strcat()

32. If the two strings are identical, then strcmp() returns ____ [ ]

A) -1 B) 1 C) 0 D) yes

33. Which of the following function is more appropriate for reading in a multi-word string? [ ]

A) printf() B) scanf() C) gets() D) puts()

34. Which of the following not belongs to String functions? [ ]

A) strcmp() B) strcat() C) strlen() D)isdigit()

35. Which function is used to reverse the string? [ ]

A) reverse() B) strrev() C) rev() D) None

36. What will be the output of the program? [ ]

```
void main()
{
```

```
char str1[20] = "Hello", str2[20] = " World";
printf("%sn", strcpy(str2, strcat(str1, str2)));
}
```

A) HelloWorld B) World C) WorldHello D) Hello

37. What will be the output of the program? [ ]

```
void main()
{
charstr[ ] = "online\0exam";
printf("%s",str);
}
```

A) online\0exam B) online C) onlineexam D) exam

38. String concatenation means [ ]

A) Combining two strings B) Extracting a substring out of a string
C) Comparing two strings D) partitioning the string into two strings

39. Which function locates the first occurrence of the character in a given string [ ]

A) strstr() B) strchr() C) strrchr() D) strrstr()

40. What is the output of the following code [ ]

```
main()
{   char str1[ ]="mahendra singh",str2[ ]="dhoni captain";
    strncat(str1,str2,5);
    printf("\n %s",str1);
}
```

A) mahendrasinghdhoni B) mahendrasinghdhoni captain
C) mahendrasingh D) None

UNIT-IV

Functions and Pointers

1. A function can be called in a program [ ]
   A) Only two times B) Only once C) Any number of times D) Only three times
2. When you pass an array as an argument to a function, what actually gets passed [ ]
   A) Address of the array B) Values of the elements of the array
   C) Number of elements of the array D) None
3. The statement used to send back any value to the calling function is [ ]
   A) break B) continue C) exit D) return
4. The function sqrt() is part of header file. [ ]
   A) conio.h B)stdio.h C)math.h D)iostream.h
5. A function can return only___ value [ ]
   A) Zero B) One C) two D) three
6. Actual and formal parameters must agree in [ ]
   A) Data types B) Number of arguments and Data types

C)Names and Data type D) None

7. Any function can be called from any other function. This statement is [ ]
   A) True sometimes B) Neither true nor false C) False D) True
8. The header file that must be included at the beginning of a C program to use a library function cos() is [ ]
   A)stdlib.h B) conio.h C)dos.h D)math.h
9. _____ function is said to be function calling itself. [ ]
   A) Call by reference B) Call by value C) Recursive D) All above
10. void funct (void); [ ]
    The above function declaration indicates
    A) it returns a value and had arguments B) it returns nothing and had arguments
    C) it returns a value and no arguments D) it returns nothing and no arguments
11. The parameters of the called function(function definition) are called [ ]
    A) Casual parameters B) formal parameters C) usual parameters D) actual parameter
12. Recursion means [ ]
    A) Function calling same function B) Function calling a function
    C) Both D) None
13. A function is one that returns no value has ____return type [ ]
    A) Void B) Integer C) Float D) Recursive
14. The parameters in a function call are [ ]
    A) Real parameters B) Formal parameters C) Actual parameters D) Dummy parameters
15. Based on arguments and return types, functions are classified into [ ]
    A) 1 type B) 2 types C) 3 types D) 4 types
16. Maximum number of arguments can be passed to a function are [ ]
    A) 2 B) 3 C) 4 D) Any
17. The default parameter passing mechanism is [ ]
    A) Call by value B) Call by reference C) Call by name D) None
18. Any C program ____ [ ]
    A) Must contain at least one function B) need not contain any function
    C) Needs input data D) None
19. 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
20. Determine output: [ ]

```
main()
{
        int i=abc(10);
        printf("%d",--i);
}
intabc(int i)
{       return(i++);    }
```

    A)10 B) 9 C) 11 D) None
21. Address stored in pointer variable is of _____ type [ ]
    A) Integer B) character C) Float D) Double
22. Pointer variable is declared using preceding with _____ sign [ ]
    A) % B) & C) ^ D) *
23. * is called as _____ [ ]

A) Value at pointer B) Address operator C) Scope resolution operator D) None

24. Multiple indirection operator is _____ [ ]
A) --> B) & C) * D) **

25. Prior to using a pointer [ ]
A) it should be declared B) it should be initialized
C)it should be declared and initialized D) None

26. int *p1,*p2; find out valid statement [ ]
A) p1-p2 B) p1*p2 C) p1+p2 D)p1/p2

27. int k[3]={1,2,3};int *p; [ ]
one of the following statement is equal to p=k is
A)p=&k[0] B) p=&k[1] C) p=&k[2] D) None

28. A pointer to pointer points to the address of a [ ]
A) Structure B) Union C) Array D) Pointer

29. Size of the pointer depends upon_____ [ ]
A) Processor B) RAM C) Hard disk D)All

30. What is the size of the double pointer? Ex: double *ptr; in 16 bit processor [ ]
A) 4 bytes B) 2 bytes C) 10 bytes D) 8 bytes

31. Which is the correct way to declare a pointer? [ ]
A) int *ptr; B) int * ptr; C) int* ptr; D) All

32. Generally , functions are classified into [ ]
A. 1 type B. 2 types C. 3 types D. 4 types

33. How to combine the following two statements into one? [ ]

```
char *p;
p=(char*)malloc(100);
```

A) char p=*malloc(100); B) char *p=(char)malloc(100);
C) char *p=(char*)malloc(100); D) char *p=(char*)(malloc*)(100);

34. A pointer is [ ]
A) A keyword used to create variables
B) A variable that stores address of an instruction
C) A variable that stores address of other variable
D) All of the above

35. The operator used to get value at address stored in a pointer variable is [ ]
A) * B) & C) && D) ||

36. What would be the equivalent pointer expression for referring the array element a[i][j][k][l] [ ]
A) ((((a+i)+j)+k)+l) B) *(*(*(*(a+i)+j)+k)+l)
C) (((a+i)+j)+k+l) D) ((a+i)+j+k+l)

37. If the size of integer is 4 bytes, what will be the output of the program? [ ]

```
int main()
{
    intarr[]={12,13,14,15,16};
    printf("%d, %d, %d\n",sizeof(arr),sizeof(*arr),sizeof(arr[0]));
    return 0;
}
```

A) 10, 2, 4 B) 20, 4, 4 C) 16, 2, 2 D) 20, 2, 2

38. Which of the following statements correct about **k** used in the below statement? [ ]

```
char ****k;
```

A) **k** is a pointer to a pointer to a pointer to a char
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

39. What will be the output? [ ]

```
main()
{
    char *p;
    printf("%d  %d",sizeof(*p),sizeof(p));
}
```

A) 1 1 B) 1 2 C) 2 1 D) 2 2

40. What will be the output? [ ]

```
main()
{
    printf("%d  %d",sizeof(int *),sizeof(int **));
}
```

A) 4 4 B) 0 2 C) 2 2 D) 2 4

UNIT-V

Structures and File Management in C

1. Which of the following is true for definition of a structure _____ [ ]
   A) Items of the same data type B) Items of the different data type
   C)Integers with user defined names D) List of Strings
2. The keyword used to define a structure is _____ [ ]
   A) stru B) struct C) structure D) STRUC
3. The operator used to access the structure member is _____ [ ]
   A) * B) & C) . D) |
4. The operator exclusively used with pointer to structure is _____ [ ]
   A) . B) [ ] C) → D) *
5. Which of the following is correct for a Structure definition? [ ]
   A) Scalar data type B) Derived data type C) Enumerated type D) Null Type
6. When accessing a structure member, the identifier to the left of the dot operator is [ ]
   A) A structure member B) The structure tag
   C) A structure variable D) The keyword struct
7. When a structure is an element to another structure, it is called as a__ [ ]
   A) Union B) Structure within a structure
   C) Pointer to Structure D) Array of Structures
8. A _____ structure is one which contains a pointer to its own type. [ ]
   A) Self-referential B) Nested C) Array D) Pointer
9. Consider the following declaration of Union

```
union  st
{
        char  c;
        int    x;
        float  y;
}p;
```

How many bytes are allocated to union variable p? [ ]

A) 7 bytes B) 4 bytes C) 1 byte D) 2 bytes

10. In C language the Bit fields are used to _____ [ ]
    A) Save time B) Save memory
    C) Change order of allocation of memory D) Save Program
11. The size of structure and union is same when they contain _____ [ ]
    A) Single member B) any number of members
    C) Arrays of different types D) Pointers to different types
12. The operator used to find the size of any variable _____ [ ]
    A)sizeof() B) sizof() C) size of() D) size()
13. The operator → is same as the combination of the operators _____ [ ]
    A) * and . B) &and . C) * and & D) & and |
14. Union can store _____ number of values at a time [ ]
    A) All its members B) Only 1 C) 2 D) Cannot hold value
15. 'C' provides a facility for user defined data type using _____ concept [ ]
    A) Array B) Function C) Pointer D) Structure
16. In the expression p→ value, p is a [ ]
    A) Address B) Pointer C) Structure D) Header
17. In C language the expression(*ps).x is equal to _____ [ ]
    A)ps->x B) x->ps C) ps->*x D) None
18. Which of the following is a list of named integer constants? [ ]
    A) typedef B)enumerationC)structure D) union
19. Which of the following is a memory location that is shared by two or more different types of variables? [ ]
    A) typedef B)enumeration C)structure D) union
20. argv[0] points to [ ]
    A) Program name B) First argument C) Both D) None
21. Which of the following is true about a File in C? [ ]
    A) It is a data type B) A region of storage in Disk
    C) A variable D) Pointer
22. If the function fopen() fails, it returns _____ [ ]
    A) -1 B) 1 C) NULL D) Address
23. The function used for writing a character to a file is _____ [ ]
    A) putc() B) fputs() C) fputchar() D) putw()
24. The function used for reading a formatted input data from a file is ____ [ ]
    A) getchar() B) fscanf() C) fgetc() D)fgets()
25. _____ function set the pointer position anywhere in the data file [ ]

A) fseek() B) feof() C) ftell() D) rewind()

26. The mode used for opening an existing file for reading a binary stream is [ ]
A) r B) rb C) wb D) w

27. The mode used for opening an existing file for reading & writing a text stream is ____ [ ]
A. r+ B) r C) w+ D) w

28. In C, file processing functionfseek() _____ [ ]
A) needs 2 arguments B)makes rewind function unnecessary
C)takes 3 arguments D)none of the above

29. rewind() function takes __ number of arguments. [ ]
A) 1 B) 2 C) 3 D) 0

30. fseek(fptr,0,0) is equivalent to _____ [ ]
A) ftell B) rewind C)a & b D) none of the above

31. Which among the following is odd one out? [ ]
A) printf B) fprintf C) putchar D) scanf

32. The value of EOF is_____ [ ]
A) -1 B) 0 C) 1 D) 10

33. Which of the following fopen statements are illegal? [ ]
A) fp = fopen(“abc.txt”, “r”);
B) fp = fopen(“/home/user1/abc.txt”, “w”);
C) fp = fopen(“abc”, “w”);
D) None of the mentioned

34. What does the following segment of code do [ ]
fprintf(fp, “Copying!”);
A) It writes “Copying!” into the file pointed by fp
B) It reads “Copying!” from the file and prints on display
C) It writes as well as reads “Copying!” to and from the file and prints it
D) None of the mentioned

35. FILE reserved word is [ ]
A) A structure tag declared in stdio.h
B) One of the basic datatypes in c
C) Pointer to the structure defined in stdio.h
D) It is a type name defined in stdio.h

36. Which of the following causes an error [ ]
A) Trying to read a file that doesn’t exist
B) Inability to write data in a file.
C) Failure to allocate memory with the help of malloc
D)All of the menioned

37. fputs adds newline character [ ]
A) true
B) false
C) Depends on the standard
D) Undefined behavior

38. In fseek() function , the position value 2 indicates _____ [ ]
A) Beginning of file B) End of file C) Current position D) All

39. Which of the following are C preprocessors? [ ]
A) #ifdef B) #define C) #endif D) All

40. In fseek() function , the position value 1 indicates _____ [ ]
A) Beginning of file B) End of file C) Current position D) All

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