

C programming I & II

- Multiple choice & one line questions

1) The C language consist of ____ number of keywords. A] 32 B] 40 C] 24 D] 56
2) Which of the following is a keyword used for a storage class? A] Printf B] external C] auto D] scanf
3) The prototype of the function in the header file is- A] Stdio.h B] stdlib.h C] conio.h D] io.h
4) Preprocessor Directives are used for - A] Macro Expansion B] File Inclusion C] Conditional Compilation D] All of these
5) Which operator has the lowest priority ? A] ++ B] % C] + D]
6) The type cast operator is- A] (type) B] cast() C] // D] “ “
7) File manipulation functions in C are available in which header file ? A] streams.h B] stdio.h C] stdlib.h D] files.h
8) Which pair of functions below are used for single xharacter I/O ? A] getchar() and putchar() B] scanf() and printf() C] input() and output() D] Non of these
9) Qhich function is used to read character as you type ? A] getchar() B] getch() C] getche() D] Both (B) and (C)
10) What is the output of this program ? void main() { int a=b=c=10; a=b=c=50; printf(“\n %d %d %d”,a,b,c); } A] 50 50 50 B] Compile Time Error C] 10 10 10 D] Three Gaebage Value
11) Which format specifier is used to print the values of double type variable A]%If B]%Id C]%Iu D] %f

12)	<p>What will be the output of the following program?</p> <pre>Void main () { Double x=28; Int r; R= x%5; Printf (“\n r=%d”, r); }</pre> <p>A] r= 3 B] Run time Error C]Compile time Erroe D]None of the Above</p>
13)	<p>What the follwing function call mean?</p> <pre>Strepys(s1 , s2);</pre> <p>A]copies s1 string into s2 B]copies s2 string into s1 C]copies both s1 and s2 D] None of these</p>
14)	<p>What will be the output of the following program?</p> <pre>Void main() { Int x []= {10,20,30,40,50}; Print f (“ \n %d %d %d %d “, x [4] ,3[x] ,x[2] ,1[x] ,x[0]); }</pre> <p>A]Error B]10 20 30 40 50 C]50 40 30 20 10 D]None of these</p>
15)	<p>Which of the following is not s keyword of ‘C’ ?</p> <p>A]auto B]register C]int D]function</p>
16)	<p>What will be the out put ?</p> <pre>Void main () { Char a[] = “INFO” ; a + +; printf (“ \n %s”, a); }</pre> <p>A] Error B] INFO C] NFO D] None of these</p>
17)	<p>Which of the following operatorhas right to left associativity?</p> <p>A] && B] // C] % D] sizeof</p>
18)	<p>What will be the out put ?</p> <pre>Void main () { Int I ; I=0x10+ 010+10; Printf (“\nx=%x”, i); }</pre> <p>A] x= 34 B] i= 34 C] I = 22 D]Error</p>
19)	<p>Explicite type conversion is known as</p> <p>A] conversion B] disjunction C] separation D] casting</p>
20)	<p>What will be the output ?</p> <pre>#define SQUARE(X) X * X void main () { printf (“\n Square = %d” , SQUARE(10+2)); }</pre> <p>A] Square = 144 B] Square =32 C] Square =122 D]Square =12</p>

<p>21) By default a function returns a value of type A] int B] char C] void D] None of these</p>
<p>22) What will be the value of x after executing the program ? <pre>void main () { int x; x = printf("I See, Sea in C"); printf("\n x= % d", x); }</pre> A] x= 15 B] x=2 C] Garbage value D] Error</p>
<p>23) What is sizeof In 'C' ? A] Operator B] Reserve Worf C] Both (A) and (B) D] Function</p>
<p>24) Study the following C program <pre>Void main () { Int a= 0; For (; a); A++; }</pre> What will be the value of the variable a, on the execution of the above program A] I B] 0 C] -1 D] None of these</p>
<p>25) Which is not keyword in 'C' ? A]typedef B] const C] near D] complex</p>
<p>26) What will be the output of the following program code ? <pre>void main () { char a[]= "Hello World" ; char *p ; p=a; printf("\n%d%d%d%d",sizeof(a), sizeof(p), stren (a), strlen(p)); }</pre> A] 11 11 10 10 B] 10 10 10 10 C] 12 12 11 11 D] 12 2 11 11</p>
<p>27) The meaning of arrow operator in a->b A] (*a).b B] a.(*b) C] a.b D] None of these</p>
<p>28) What will be the output of the following program code? <pre>Void main () { Printf ("\n ABC\b\b\bInfo World"); }</pre> A] Info world B] ABC Info world C] strxfm D] strcut</p>
<p>29) Which is valid string function ? A] strpbrk B] strlen C] strxfm D] strcut</p>

<p>30) What will be the size of following structure? Struct sample { Static int x; int y,z; } ; A] 6 bytes B] 2 bytes C] + bytes D] None of these</p>
<p>31) Which of the following function not convert floating point number to string ? A] fevt B] gevt C] eevt D] hcvt</p>
<p>32) What will be the output ? void main () { printf(“%d”,’B’ < ‘A’); } A] Error B] 1 C] 0 D] None of these</p>
<p>33) Which one of the following is condirional directive ? A] #nifdefn B] #ifdefn C] # ifdefn D] #nifdef</p>
<p>34) What will be the output ? void main () { int x; unsigned y; printf(“\n%d %d”, sizeof(x), sizeof(y)); } A] 22 B] 24 C] 44 D] None of these</p>
<p>35) int **x; A] x is a pointer to pointer B] x is not pointer C] x is long D] None of these</p>
<p>36) What will be the output ? void main () { printf(“\n %d %d”, 10&20, 10/ 20); } A] 00 B] 10 10 C] 0 30 D] 20 20</p>
<p>37) Which of the following is used as a string termination character ? A] 0 B] \0 C] /0 D] None of these</p>
<p>38) What will be the output ? void main () { int I= 48; printf(“\n %c %d” ,I,I); } A] Error B] 48 48 C] 1 48 D] 0 48</p>
<p>39) A static variable by default gets initialized to A] 0 B] blank space C] 1 D] garbage value</p>

40)	Find out on which line no . you will get an error ? Line 1: void main () Line 2: { Line 3: print("\n Hello World") Line 4: } A] Line 1 B] Line 2 C] Line 3 D] Line 4
41)	What will be the output of the following program ? void main () { int x=10,y=20; printf ("\n %d",x,y); } A] 10 B] 20 C] 10 20 D] None of these
42)	Which function reallocates memory ? A] realloc B] alloc C] malloc D] None of these
43)	What will be the size of following union declaration? Union Test { Int x; Char y; Float z; } ; A] 7 bytes B] 4bytes C] 1byte D] 4 bytes
44)	A declaration float a,b; accupies _____of memory ? A] 1 bytes B] 4bytes C] 8byte D] 16 bytes
45)	What is the output of the following program ? void main() { int x=40;y=30;z=80; if(x<y<z) printf("\n Hello world"); else printf("\nGood by"); A] Hello world B]Good by C]Compile time error D]None of these
46)	Which of the following is not a relational operator? A]! B] != C]>= D]<

47)	<pre> what will be the output ? void main(){ char *p="Hello world"; int *q; p++; q = (int *)p; q++; printf("\n %s\n%s,p,q); } </pre>	<p>A] ello world Ello world C] ello world Lo world</p> <p>B]Error D]ello world llo world</p>
48)	<p>which of the following is an operator in 'C'?</p>	<p>A] , B] \$ C] @ D] None of these</p>
49)	<pre> What is the output of the following code? Void main() { Int c=0, d=5,e=10,a; A=c>1?d>1 e>1?100:200:300; Printf("a=%d",a); } </pre>	<p>A] a=300 B]a=100 C] a=200 D] None of these</p>
50)	<p>Which among the following is a unconditional control structure?</p>	<p>A] do-while B] if -else C] goto D] for</p>
51)	<p>Which of the following language is predecessor to C Programming Language?</p>	<p>A] A B]B C] BCPL D]C++</p>
52)	<p>C programming language was developed by</p>	<p>A] Dennis Ritchie B]Ken Thompson C] Bill Gates D] Peter Norton</p>
53)	<p>C was developed in the year ____</p>	<p>A] 1970 B] 1972 C] 1976 D] 1980</p>
54)	<p>C is a ____ language</p>	<p>A] High Level B] Low Level C] Middle Level D] Machine Level</p>
55)	<p>C language is available for which of the following Operating Systems?</p>	<p>A] DOS B] Windows C]Unix D] All of these</p>
56)	<p>Which of the following symbol is used to denote a pre-processor statement?</p>	<p>A] ! B]# C] ~ D];</p>
57)	<p>Which of the following is a Scalar Data type</p>	<p>A] Float B] Union C] Array D] Pointer</p>

58) Which of the following are tokens in C? A] Keywords B] Variables C] Constants D] All of the above
59) What is the valid range of numbers for int type of data? A] 0 to 256 B] -32768 to +32767 C] -65536 to +65536 D] No specific range
60) Which symbol is used as a statement terminator in C? A] ! B] # C] ~ D] ;
61) Which escape character can be used to begin a new line in C? A] \a B] \b C] \m D] \n
62) Which escape character can be used to beep from speaker in C? A] \a B] \b C] \m D] \n
63) Character constants should be enclosed between ____ A] Single quotes B] Double quotes C] Both a and b D] None of these
64) String constants should be enclosed between ____ A] Single quotes B] Double quotes C] Both a and b D] None of these
65) Which of the following is invalid? A] '' B] "" C] 'a' D] 'abc'
66) The maximum length of a variable in C is ____ A] 8 B] 16 C] 32 D] 64
67) What will be the maximum size of a float variable? A] 1 byte B] 2 bytes C] 4 bytes D] 8 bytes
68) What will be the maximum size of a double variable? A] 1 byte B] 4 bytes C] 8 bytes D] 16 bytes
69) A declaration float a,b; occupies ____ of memory A] 1 byte B] 4 bytes C] 8 bytes D] 16 bytes
70) The size of a String variable is A] 1 byte B] 8 bytes C] 16 bytes D] None
71) Which of the following is an example of compounded assignment statement? A] a = 5 B] a += 5 C] a = b = c D] a = b
72) The operator && is an example for ____ operator. A] Assignment B] Increment C] Logical D] Rational
73) The operator & is used for A] Bitwise AND B] Bitwise OR C] Logical AND D] Logical OR
74) The operator / can be applied to A] integer values B] float values C] double values D] All of these
75) The equality operator is represented by A] := B] .EQ. C] = D] ==

<p>76) Operators have hierarchy. It is used to know which operator A] is most important B] is used first C] is faster D] operates on large numbers</p>
<p>77) The bitwise AND operator is used for A] Masking B] Comparison C] Division D] Shifting bits</p>
<p>78) The bitwise OR operator is used to A] set the desired bits to 1 B] set the desired bits to 0 C] divide numbers D] multiply numbers</p>
<p>79) Which of the following operator has the highest precedence? A] * B] == C] => D] +</p>
<p>80) The associativity of ! operator is A] Right to Left B] Left to Right C] (a) for Arithmetic and (b) for Relational D] (a) for Relational and (b) for Arithmetic</p>
<p>81) Which operator has the lowest priority? A]++ B]% C]+ D] </p>
<p>82) Which operator has the highest priority? A]++ B]% C]+ D] </p>
<p>83) Operators have precedence. A Precedence determines which operator is A]faster B] takes less memory C] evaluated first D]takes no arguments</p>
<p>84) Integer Division results in A] Rounding the fractional part B] truncating the fractional part C] Floating value D]An Error is generated</p>
<p>85) . Which of the following is a ternary operator? A] ? B] * C] sizeof D]^</p>
<p>86) What will be the output of the expression 11 ^ 5? A]5 B]6 C] 11 D]None of these</p>
<p>87) The type cast operator is A] (type) B]cast() C]// D] " "</p>
<p>88) Explicit type conversion is known as A] Casting B] Conversion C] Disjunction D] Separation</p>
<p>89) The operator + in a+=4 means A] a = a + 4 B] a + 4 = a C] a = 4 D] a = 4 + 4</p>
<p>90) p++ executes faster than p+1 because A] p uses registers B] p++ is a single instruction C] ++ is faster than + D] None of these</p>

<p>91) Which of the following statements is true? A] C Library functions provide I/O facilities B] C inherent I/O facilities C] C doesn't have I/O facilities D] Both (a) and (c)</p>
<p>92) Header files in C contain A] Compiler commands B] Library functions C] Header information of C programs D] Operators for files</p>
<p>93) Which pair of functions below are used for single character I/O. A] Getchar() and putchar() B] Scanf() and printf() C] Input() and output() D] None of these</p>
<p>94) The printf() function returns which value when an error occurs? A] Positive value B] Zero C] Negative value D] None of these</p>
<p>95) Identify the wrong statement A] putchar(65) B] putchar('x') C] putchar("x") D] putchar('\n')</p>
<p>96) Which of the following is character oriented console I/O function? A] getchar() and putchar() B] gets() and puts() C] scanf() and printf() D] fgets() and fputs()</p>
<p>97) The output of printf("%u", -1) is A] -1 B] minimum int value C] maximum int value D] Error message</p>
<p>98) An Ampersand before the name of a variable denotes A] Actual Value B] Variable Name C] Address D] Data Type</p>
<p>99) Symbolic constants can be defined using A] # define B] const C] symbols D] None of these</p>
<p>100) Null character is represented by A] \n B] \0 C] \o D] \e</p>
<p>101) Which header file is essential for using strcmp() function? A] string.h B] strings.h C] text.h D] strcmp.h</p>
<p>102) malloc() function used in dynamic allocation is available in which header file? A] stdio.h B] stdlib.h C] conio.h D] mem.h</p>
<p>103) File manipulation functions in C are available in which header file? A] streams.h B] stdio.h C] stdlib.h D] files.h</p>
<p>104) C supports how many basic looping constructs A] 2 B] 3 C] 4 D] 6</p>
<p>105) A statement differs from expression by terminating with a A] ; B] : C] NULL D] .</p>
<p>106) What should be the expression return value for a do-while to terminate</p>

A] 1 B] 0 C] -1 D] NULL
107) Which among the following is a unconditional control structure A] do-while B] if-else C] goto D] for
108) continue statement is used A] to go to the next iteration in a loop B] come out of a loop C] exit and return to the main function D] restarts iterations from beginning of loop
109) Which operator in C is called a ternary operator A] if..then B] ++ C] ? D] ()
110) Which of the following header file is required for strcpy() function? A] string.h B] strings.h C] files.h D] strcpy()
111) The meaning of conversion character for data input is A] Data item is a long integer B] Data item is an unsigned decimal integer C] Data item is a short integer D] None of the above
112) The conversion characters for data input means that the data item is A] An unsigned decimal integer B] A short integer C] A hexadecimal integer D] A string followed by white space
113) An expression contains relational, assign. ment and arithmetic operators. If Parenthesis are not present, the order will be A] Assignment, arithmetic, relational B] Relational, arithmetic, assignment C] Assignment, relational, arithmetic D] Arithmetic, relational, assignment
114) Which of the following is a key word is used for a storage class A] printf B] external C] auto D]scanf
115) In the C language 'a' represents A] a digit B] an integer C] a character D] a word
116) The number of the relational operators in the C language is A] Four B] Six C] Three D] One
117) A compound statement is a group of statements included between a pair of A] double quote B] curly braces C] parenthesis D] a pair of //s
118) A Link is A] a compiler B] an active debugger C] a C interpreter D] a analyzing tool in C

119) The continue command cannot be used with A] for B] switch C] do D] while
120) In C, a Union is A] memory location B] memory store C] memory screen D] None of these
121) When the main function is called, it is called with the arguments A] argc B] argv C] None of these D] both a & b
122) A multidimensional array can be expressed in terms of A] array of pointers rather than as pointers to a group of contiguous array B] array without the group of contiguous array C] data type arrays D] None of these
123) C allows arrays of greater than two dimensions, who will determined this A] programmer B] compiler C] parameter D]None of these
124) A pointer to a pointer in a form of A] multiple indirection B] a chain of pointers C] both a and b D] None of these
125) Pointers are of A] integer data type B] character data type C] unsigned integer data types D] None of these
126) Maximum number of elements in the array declaration int a[5][8] is A] 28 B] 32 C] 35 D] 40
127) If the size of the array is less than the number of initializers then, A] Extra values are being ignored B] Generates an error message C] Size of Array is increased D] Size is neglected when values are given
128) Array subscripts in C always start at A] -1 B] 1 C] 0 D] Value provided by user
129) A Structure A] can be read as a single entity B] cannot be read as a single entity C] can be displayed as a single entity D] has member variables that cannot be read individually

- 130) Identify the invalid pointer arithmetic
- A] Addition of float value to a pointer
 - B] Comparison of pointers that do not point to the element of the same array
 - C] Subtracting an integer from a pointer
 - D] Assigning the value 0 to a pointer variable

One Line Questions

1. What is variable?
2. What is constant?
3. How many bytes are required to store integer type value?
4. How many bytes are required to store float type value?
5. How many bytes are required to store char type value?
6. How many bytes are required to store double type value?
7. What is main difference between variable and constant?
8. What is logical variable?
9. What is global variable?
10. How long is word?
11. How long is a byte?
12. How does a programmer finds coding errors?
13. Describe the appearance of machine code?
14. Whether the program in c can be executed by computer directly ?
15. What is language processor?
16. What is purpose of language processor?
17. What are major disadvantages of machine code?
18. Give the general syntax of conditional operator?
19. Which are relational operator?
20. Which are logical Operators?
21. Which are Bitwise Operators?
22. Which are unformatted input output functions?
23. Which are formatted input output functions?
24. What is the use of getchar() function?
25. What is the use of getch() function?
26. What is the use of getche() function?
27. What is Disk IO Function?
28. What do you mean by consol IO functions?
29. Give syntax of simple if stmt
30. Give syntax of simple if – else stmt
31. Give syntax of simple nested if – else stmt?
32. Define Program
33. What is nested loop?
34. What is process loop?
35. What is Syntax Error?
36. What is Logical Error?
37. What is Run Time Error?

38. Define Array
39. Give general Syntax to declare One dimensional array
40. Give general Syntax to declare two dimensional array
41. What is function?
42. What is built in function?
43. What is use of return statement?
44. What is the use of strcat() function?
45. What is the use of strcmp() function?
46. What is the use of strrev() function?
47. What is the use of strlen() function?
48. What is the use of strcpy() function?
49. What is recursive function?
50. What do you mean by call by value?
51. What do you mean by call by reference?
52. What is pointer?
53. What is structure?
54. What is main difference between structure and union?
55. What is use of typedef?
56. Whether Structured programming helps in reducing errors?
57. Give the syntax of defining rectangle()
58. Give the syntax of defining putpixel()
59. Give the syntax of defining ellipse()
60. Give the syntax of defining line()
61. Give the syntax of defining arc()
62. What is preprocessor ?
63. Give any two features of preprocessor
64. Give the syntax for defining File
65. Give the syntax for opening File
66. Give the syntax for Closing File
67. What is fopen()?
68. What is fclose()?
69. What is the use of ftell()?
70. What is the use of fseek()?
71. What is the use of rewind()?
72. What is the use of feof()?

- Question for two marks

1. What are the three constants used in C?
2. Explain bitwise left shift operator?
3. What is unary operator?
4. Explain putchar()?
5. What is an expression? How is an expression differing from variables?
6. Explain primary data types used in C?
7. Comment "C is mid level language"?

8. Explain escape sequence character in C?
9. What is use of if statement?
10. write a syntax of while loop?
11. what is output of following program?

```
int m=1,n=2;
for(j=1;j<=2;j=j+1)
{ m=m+1;
  n=n*j;
  printf(“%d \t %d\t” ,m,n);
}
```
12. which of different types of loop statement used in C?
13. Explain for loop?
14. Enlist different format specifier in C?
15. What is an array?
16. What is output of following program?

```
main()
{ int a[7]={11,12,13,14,15,16,17};
  int i;
  printf(“content of array”);
  for(i=0;i<=6;++i);
  { printf(“%d\t”,a[i]); }
}
```
17. What are the rules to declare one dimensional array?
18. What is multidimensional array?
19. explain- a) strlen() b) strcat()
20. What is function?
21. Explain recursion?
22. What is call by value?
23. Explain any two string functions?
24. What is variable?
25. Write disadvantages of goto statement.
26. What is pointer?
27. Difference between union and structure.
28. What is structure?
29. explain – a) line() b) circle()
30. Explain any two graphics function?
31. Explain - a) getc() b) putc()
32. Explain any two file handling function?
33. Explain macros?
34. Explain #include?
35. Explain dynamic memory allocation?
36. State three advantages of function?
37. What is purpose of keyword void?
38. Determine the value of each of following expression-

```
int i=8 , j=j ; a) (3 * i – 2 * j ) %(2 * d –c) b) ( i > 0) && ( j < 5)
```
39. What is mean by associativity?

40. If $x = 8.8, y = 3.5, z = -5.2$, then determine value of following expression
 a) $2 * y + 3 * (x - z)$ b) $2 * x / (3 * y)$
41. Describe arithmetic operator?
42. Explain scanf();
43. Difference between formatted & unformatted statement ?
44. State features of pre-processor?
45. What is command line argument?
46. Define variable & constant?
47. How static variable are define and initialized?
48. What is mean by storage class of variable?
49. List any three file mode in C?
50. Write a program to find largest between two numbers?

Questions for 4 marks

1. Enlist the features of C.
2. Explain different data types used in C language?
3. Explain type identifiers in C?
4. Explain in brief structure of C programming?
5. what is operator enlist all operators used in C?
6. what is data type explain the any four data types used in C language?
7. Explain the difference between '=' and '==' operator explain with example?
8. Write a short note precedence & order of evaluation?
9. Differentiate between relational and logical operators used in C?
10. Write short note on Input & Output functions used in C (i.e. print & scanf functions?)
11. what is variable? What are the rules for defining variables?
12. Differentiate between local variable and global variable?
13. Explain symbolic constants used in C?

14. Explain any two bitwise operator with suitable example.
15. Explain with example ++i and i++.
16. Explain logical operators and expressions used in C?
17. Explain the following g functions
i) getch() and ii) clrscr()
18. Explain printf() function with an example
19. Explain scanf() function with an example
20. Explain syntax and use of Do __ While statement
21. Which looping statements does C provides? Explain any one.
22. Explain explain **continue** And **break** statements
23. Explain switch statement with its syntax and example.
24. What is Nested if else explain with an example?
25. Explain nested for loop with an example
26. What is array? How to declare array? Explain with suitable example.
27. Explain one dimensional array with an example
28. Explain Two dimensional array with an example
29. Explain applications of array
30. Explain any 4 string functions with suitable example?
31. What is the difference between call by value and call by reference
32. What is recursion explain with suitable example.
33. Explain Automatic storage class specifier

34. Explain Static storage class
35. Explain Register storage class
36. Explain Extern storage class
37. For what purpose '\0' is used in string operations explain with suitable example.
38. What is function ?how function is defined.
39. Explain the difference between calling function and called function?
40. Explain void function?
41. Explain what is pointer?expalin with suitable example
42. Explain pointer to structure in detail.
43. Explain pointer to function in detail.
44. Explain explain any one dynamic memory allocation
45. Explain how to access a value using pointer?give a suitable example.
46. Write a short note on pointer to pointer
47. Distinguish bet malloc and calloc()
48. What is structure?explain with suitable example
49. Explain array of structure with example
50. Explain Nested structure with example.
51. Distinguish between Structure and Union
52. Differentiate structure and array

53. Describe programming approach
54. Explain the use of Typedef
55. What is graphics? Enlist the different types of functions used in C
56. Explain the following graphic function by writing a small program **circle()**
57. Explain the following graphic function by writing a small program **arc()**
58. Explain the following graphic function by writing a small program

ellips()

59. Explain the following graphic function by writing a small program

initgraph()

60. Explain the following graphic function by writing a small program

line()

61. Explain the following graphic function by writing a small program

rectangle()

62. Explain directives
63. Explain features of preprocessors
64. What is a pre-processor explain `#include` ,`#define`

65. Write a short note on C preprocessors
66. Explain 1)fprintf() ii)fscanf()
67. Distinguish between 1)fprintf() ii)fscanf()
68. Write a short note on file handling in C
69. Explain the following i)rewind ii)feof
70. Distinguish between getch and getc
71. Distinguish between putch and putc
72. Explain putc and getc in brief
73. What is command line argument
74. Explain command line argument with example
75. Distinguish between fprintf() and printf()
76. Explain fprintf() with example
77. Explain fscanf() with example
78. What is macro? Explain with example
79. Differentiate between if-else-if and switch statement.
80. Explain function with argument and return type.
81. Explain array of pointers.
82. Define array and how two – dimensional array is initialize?
83. Explain dynamic memory allocation in brief.
84. Write a note on pointer to pointer.
85. What are the similarities and difference between structure and union.
86. Explain nested structure.

87. Explain array of structure.
88. Explain pointer to structure.
89. Explain the following types of file
 - i)sequential
 - ii)Index sequential
 - iii)Direct file

90. What is advantage of representing an array of string by an array of pointer to string.
91. Explain the following functions with example
 - 1)getchar() 2)putchar()
92. Explain the following functions with example
 - 1)getche() 2)putche()
93. Explain the following functions with example
 - 1)getch() 2)putch()
94. Explain sizeof operator with example.
95. Explain conditional operator with example.
96. What is user defined functions and built-in functions.Enlist them.
97. What is null string ?What is it's length?
98. What is union?Explain with example.
99. Write short note on expression used in C.

100. What are static variable? Compare with standard local variable.
101. Write a rule for declaring character constant.
102. Write a rule for declaring string constant.
103. Write a rule for declaring numeric constant.
104. What is structure? Explain with example.
105. Explain * operator and & operator with example.
106. What are the rule of to use period(.) operator.
107. Explain is EOF and BOF.
108. What is EOF and what value does usually have ?
109. What are identifier and keywords? Explain it with suitable example.
110. What is type casting? Explain it with suitable example.
111. What is swaping? Explain it with suitable example.
112. Write a short note on ternary operator and cast operator.
113. What is string constant?How is string constant is differ from chrecter constant?
114. What is character constant? How is character constant is differ from integer constant?
115. List out the five arithmetic operators in C.
116. What is the associtivity rules involve in this operator.
117. What is mean by the comparision and logical operator?How are they different from the arithmetic and assignment operator?

118. List out the different operators involve for comparision and logical decision making in C.

119. What is mean by the equality operator?How do these differ from an assignment operator.

120. Explain the following bitwise operators

i)Bitwise AND ii) Bitwise OR iii) BitwiseXOR iv) Bitwise Left Shift v)

Bitwise Right Shift

121. What is unary operator? List out the different operator involve in the unary operator.

122. Distinguish between binary minus and unary minus.

123. What is modulus operator and how does it operate in C.

124. What is an expression? How is an expression different from the variables?

125. What are the different type of statement used in C.

126. What are the salient features of standard input and output file

127. Explain the following stements:

i)getchar() ii)putchar() iii)EOF

128. What is the scanf() and how does it differ from the getchar().

129. What are the format codes used along with the scanf().Display the various data types in C.

130. What is the printf() and compare with putchar().

131. What is mean by conditional expression?

132. What is looping in C? What are the advantages of looping?

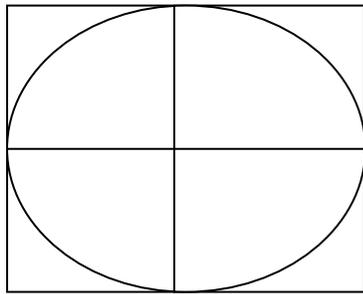
133. What is the nested for loop?
134. Compare while loop and for loop with example.
135.)What is crucial importance of main() in C.
136. What is use of continue in C.
137. List out applications of C language.
138. List out the advantages of function.
139. What is mean by call by reference & call by value.
140. What is the difference between call by reference & call by value.
141. What is the purpose of return statement
142. List out the rules used in return statement
143. What is mean by register variable and what the scope of it?
144. What role does the fseek() plays and how many arguments does it
Have?
145. What is static variable and what is its scope?
146. What is the use of external data type in c?
147. What is the storage class used in recursive function
148. What is the recursive function. List out their merits and demerits.
149. How does the fopen() works? Explain it with example.
150. What is an array and how array variable differs from ordinary variable.

151. What is an array indexing explain with an example
152. When sorting the elements of an array is it necessary to use another array to store the sorted elements explain?
153. What is the function and list out advantages and disadvantages of functions
154. What is mean by function argument, function call and return value
155. What is the automatic variable and what is the use of it.
156.)How can data be initialized in the automatic variable
157. How are the data elements initialized in the case of static type variable
158. What is the use of external data type in C
159. How is the #include directive is used?
160. How can #define directive be continued to anew line
161. What are the rules used to declare a one dimensional array
162. What are the rules used to declare a two dimensional array
163. What are the rules used to declare a multi dimensional array
164. What is character array how it differs from other data types.
165. Distinguish between character array and string
166. Explain applications of array
167. What is a pointer?What is the use of pointer in C
168. What is the role played by the break statement within the switch statement.Explain with example.

169. What is the difference between the array of pointer and pointer to the array
170. Summarise the purpose of string.h function.
171. What is the structure and what are the uses of it.
172. Distinguish structure data type with other data type variables.,
173. How structure different from array
174. What is mean by member or field of structure
175. What is the difference between structure declaration and structure initialization
176. What is the advantage of UNION in C?
177. Explain the salient features of typedef ?
178. Explain the various modes used in file operation?
179. Comment on “May comments are nested”?
180. Distinguish between binary and unary minus with example
181. What is the modulus operator and how does it works explain it with example
182. Why is go to not necessary for the structured programming language like C?
183. What is the purpose of comma operator within which statement does the comma operator usually appear.
184. Explain Getw() & Putw function

***** Programming Segment *****

1. Write a C program to find the maximum of three numbers using conditional operators
2. Write a C Program to sort an array in ascending order
3. Write a C Program to sort an array in descending order
4. Write a C Program to find sum of digits in a given number
5. Write a C Program to print square of all numbers 1 to 20 and print sum squares
6. Write a C Program to check if given number is present in an array or not
7. Write a C Program to find the position of given number in array
8. Write a C Program to print transpose of matrix
9. Write a C Program to print equivalent binary number of given decimal number
10. Write a C Program to print equivalent octal number of given decimal number
11. Write a C Program to print equivalent hex number of given decimal number
12. Write a C Program to draw a circle with radius 10
13. Write a C Program to calculate factorial of a given number using recursion
14. Write a C Program to draw star symbol at the center of the screen
15. Write a C Program to copy contents of text.dat file to txt2.data file
16. Write a C Program to draw following object



17. Write a C Program to print all numbers between 1 to n divisible by 7
18. Write a C Program to find sum of $1 + 2 + 3 + \dots + n$
19. Write a C Program to find sum of $2 + 4 + 6 + \dots + n$
20. Write a C Program to find sum of $7 + 14 + 21 + \dots + n$
21. Write a C Program to find sum of $1/1 + 1/2 + 1/3 + \dots + 1/n$
22. Write a C Program to print 15 terms of 1, 2, 4, 7, 11, 16,
23. Write a C Program to print even and odd number from an array
24. Write a C Program to read character from keyboard and display message whether character is alphabet, digit or special symbol
25. Write a C Program to read a string and count number of vowels in it

26. What will be output of the following code or find errors if present in the code

a)

```
main()
{
    Int = 10 ;
    Char = "d" , i
    K=pow(5,6);
    I+=k;
}
```

b) j = 2 ;

```
nbegin=10; n = 0; nend = 3;
```

```
for (i=0;i<=nend;i++)
```

```
{
    n=nbegin+i*nend;
    printf("%d",n+j);
    j++;
}
```

c) main()

```
{
    int x , y ;
    x = 753;
    y = 722;
    printf(" x & y is %@" , x & y );
}
```

d) main()

```
{
    char c[2] = "A";
    printf("\n%c",c[0]);
    printf("\n%s",c);
}
```

e) main()

```
{
    int b[] = { 10,20,30,40,50 };
    int i, *k;
    k = b;
    for ( i = 0 ; i<= 4 ; i++)
    {
        printf("\n%d",*k);
        k++;
    }
}
```

```
f) main()
{
    int *a , b = 30;
    a = &b;
    b = *a + 40;
    a = b % 5;
    printf(“%d %d”,*a , b);
}
```

```
g) main()
{
    int i , j = 3;
    xyz(&i,&j);
    printf(“%d%d”,i,j);
}
xyz(int *i , int*j)
{
    *i = *i * *j;
    *j = *j * *j;
}
```

```
h) main()
{
    int x , y;
    x = 2003;
    x++;
    y = x++;
    y = x;
    y++;
    x—;
    x—
    printf (“%d%d”,x,y);
}
```

```
i) main()
{
    int x ;
    x = 18;
    while ( x > 1)
    {
        printf(“\n%d”,x);
        x=x-1;
    }
}
```

```

j) main()
    {
        int a , x;
        a = 18;
        x = a >> 1;
        printf(“%d%d”,a,x);
    }

k) int i = 10 j = 20 ;
    float a,b,c;
    a = i / j;
    b = 1.0 * i / j ;
    c = i / j * 1.0;
    printf(“%f%f%f “,a,b,c);

l) int i = 4 , j ;
    j = ++i * i++;
    i*=j;
    printf(“%d %d”,i,j);

m) typedef int integer;
    integer m , n;
    while ( n != 0)
    {
        m = n mod 5;
        printf(“%c”,m);
        n /= 10;
    }

n) main()
    {
        int i = 0 , sum =0 , sum sq = 0;
        for ( i = 2; i < 10 ; i+=2)
        {
            sum+=i;
            sumsq+=i*i;
        }

        printf(“Sum is : %d “ , sum);
        printf(“Sum of Square is : %d “ , sumsq);
    }

o) main()
    {
        static int i;
        printf(“%d”,i);
    }

```

```

p) main()
   {
       int x = 4 ;
       int y = x << 1;
       printf(“%d%d”,x,y);
   }
q) main()
   {
       int a;
       a = 30;
       a = a << 2 ;
       printf(“a = %d”,a);
   }
r) main()
   {
       int i = 3;
       i++;
       printf(“Multiplication is %d”,i++ * i++)
   }
s) main()
   {
       char x[] = “F.Y. B.Sc. “ , *p;
       int i = 0;
       p = x;
       while ( i != 10)
       {
           i = i + 2;
           p++;
           printf(“%c”,*p);
       }
   }

```

Question for 6 marks

1. Write a C language program to display the largest element in the matrix.

2. Write a C language program to swap two numbers using pointers and function.
3. Write a C language program to calculate the series-
 $1/1! + 2/2! + 3/3! + \dots$ Up to n terms.
4. Write down C language program to find out number of occurrences of a character in a file.
5. Write a C language program to display the student result sheet using the data stored in a file.

<u>Student</u>	<u>structure</u>
Name	character(25)
Rollno	integer
Marks1	integer
Marks2	integer
Marks3	integer

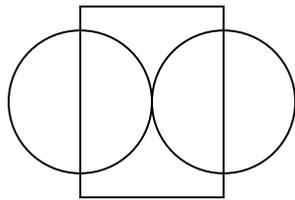
6. Write a C language program to display the content of file using command line argument.
7. Write a C language program to copy the contents of one file to another file.
8. Write a C language program to count number of lines and words in a file.
9. Write a C language program to find out sum of the following series
 $1! + 2! + 3! + \dots + n!$
10. Write a C language program to enter n elements in array and find second smallest number from an array.
11. Write a C language program to check whether given number is prime or not.
12. Write a C language program to create a file stud.dat

<u>Field name</u>	<u>type</u>
Rollno	integer
Name	character(25)
Age	integer

Enter information about 10 students.

13. Write a C language program using recursive function to enter 4 digit number and find the sum of all digits of the number .
14. Write a C language program to print all armstrong numbers between 1 to 500.
 (e.g. $153 = 1^3 + 5^3 + 3^3 = 153$)

15. Write a C language program to find whether given number is palindrome or not.
16. Write a C language program to find GCD of given two numbers.
17. Write a C language program which will read string and count the number of characters and words in it.
18. Write a C language program to read two matrices and add them.
19. Write a C language program to read two matrices and multiply them.
20. Write a C language program to read one matrix and find the sum of its diagonal elements.
21. Write a C language program to input number and find a largest digit in a given number and print it in word with appropriate message.
(e.g. n=5273 - "SEVEN is largest")
22. Write a C language program to compute following series
 $G = 1 + x^3/3! + x^5/5! + x^7/7! + \dots$ up to n terms.
23. Write a C language program to draw '+' sign at the center of the screen.
24. Write a C language program to read n numbers in an array and split the array into two arrays even and odd such that the array even contains all the even numbers and other is odd. So the output will be—
(e.g. Original array is 7,9,4,6,5,3,2,10,18
 Odd array is 7,9,5,3
 Even array is 4,6,2,10,18)
25. Write a C language program to check whether the string is palindrome or not.
26. Write a C language program to display—



27. Write a C language program to read records from file created in binary mode.
28. Write a C language program to create file in binary mode to store students record.
29. Write a C language program to add, list, delete record and modify the current record.

30. Write a C language program to read “mark.dat” file containing rollno ,name,marks of three subjects and calculate total mark, result in grade and store same in “result.dat” file.

31. Write a C language program to create a file “ele.dat” containing cust no,name,current & previous reading.

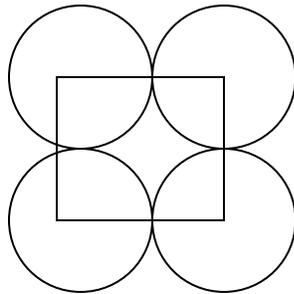
32. Write a C language program to read a cust.dat file containing meter number ,name, current reading & previous reading. Read the same file calculate unit and total amounts according to the following rules—

Unit	rate
0-50	1.00
51-100	1.50
> 100	2.00

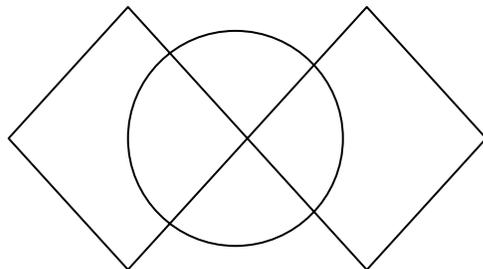
Store meter number ,name ,unit & amount in master.dat file.

33. Write a C language program to create file “odd” to store all odd numbers between 1 and n.

34. Write a C language program to draw –



35. Write a C language program to draw –



36. Write a C language program using structure to define employee record containing employee number , name and salary. Read 10 records.

37. Write a C language program to demonstrate the use of union.

38. Write a C language program to define structure for class containing class, name, no. of students and block no. Read 5 records and display it.
39. Write a C language program using command line argument to add three numbers.
40. Write a C language program using command line argument to calculate area of a rectangle.
41. Write a C language program using recursion n terms of Fibonacci series.
42. Write a C language program using recursion to calculate m^n .
43. Write a C language program using recursion to calculate factorial of given number.
44. Distinguish between character constant and string constant.
45. Describe all operators used in C language with example.
46. Explain in detail three parts of C program.
47. Write a short note on precedence and order of evolution.
48. Explain in detail bitwise operators with example.
49. State and explain formatted input-output statements and standard input-output statements with example.
50. Explain in detail call by value and call by reference with example.
51. Explain the following using general syntax and example .
 - i) if
 - ii) if-else
 - iii) nested if-else
52. Explain break and continue statements using syntax and example .
53. Explain following
 - i) while
 - ii) do-while
 - iii) for
54. Define array. Explain different types of array in detail.
55. State and explain various types of standard function with example.
56. State and explain different phases used in user defined function.
57. Explain function with return and function with arguments with example.
58. State and explain different types of string functions with example.
59. Explain dynamic memory allocation and releasing dynamically allocated memory.
60. Define structure and union. Explain the way of declaring and accessing them.
61. Explain nested structure and self referential structure with example.
62. Explain in detail array of structure and pointer to structure.
63. State and explain various modes of file opening and file closing.
64. What do you mean by pre-processor? Explain in detail macros.

65. What do you mean by pre-processor directives? List and explain its different categories.
66. Explain following in detail
 - i) `initgraph()` ii) `circle()` iii) `arc()` iv) `ellipse()` v) `line()` vi) `rectangle()`
67. Explain the concept of files, records and fields.
68. Explain any three of the following with example
 - i) `fprintf()` ii) `fscanf()` iii) `getc()` iv) `feof()`
69. Explain any three of the following with example
 - i) `getw()` ii) `putw()` iii) `feof()` iv) `fgets()`
70. Explain any three of the following with example
 - i) `rewind()` ii) `fseek()` iii) `ftell()` iv) `fputs()`
71. Write a C language program to enter n elements in array and find second largest number from array.