



UNIT 1 : Introduction to C Language

1. Which of the following is not a valid variable name declaration?

- a) int __a3;
- b) int __3a;
- c) int __A3;
- d) None of the mentioned

Answer: d

2. Which of the following is not a valid variable name declaration?

- a) int _a3;
- b) int a_3;
- c) int 3_a;
- d) int _3a

Answer: c

3. Why do variable names beginning with the underscore is not encouraged?

- a) It is not standardized
- b) To avoid conflicts since assemblers and loaders use such names
- c) To avoid conflicts since library routines use such names
- d) To avoid conflicts with environment variables of an operating system

Answer: c

4. All keywords in C are in _____

- a) LowerCase letters
- b) UpperCase letters
- c) CamelCase letters
- d) None of the mentioned

Answer: a

5. Variable name resolution (number of significant characters for the uniqueness of variable) depends on _____

- a) Compiler and linker implementations
- b) Assemblers and loaders implementations
- c) C language
- d) None of the mentioned

Answer: a



6. Which of the following is not a valid C variable name?

- a) int number;
- b) float rate;
- c) int variable_count;
- d) int \$main;

Answer: d

7. Which of the following is true for variable names in C?

- a) They can contain alphanumeric characters as well as special characters
- b) It is not an error to declare a variable to be one of the keywords(like goto, static)
- c) Variable names cannot start with a digit
- d) Variable can be of any length

Answer: c

8. What is short int in C programming?

- a) The basic data type of C
- b) Qualifier
- c) Short is the qualifier and int is the basic data type
- d) All of the mentioned

Answer: c

9. The format identifier '%i' is also used for _____ data type.

- a) char
- b) int
- c) float
- d) double

Answer: b

10. Which data type is most suitable for storing a number 65000 in a 32-bit system?

- a) signed short
- b) unsigned short
- c) long
- d) int

Answer: b

11. Which of the following is a User-defined data type?

- a) typedef int Boolean;
- b) typedef enum {Mon, Tue, Wed, Thu, Fri} Workdays;
- c) struct {char name[10], int age};



d) all of the mentioned

Answer: d

12. What is the size of an int data type?

- a) 4 Bytes
- b) 8 Bytes
- c) Depends on the system/compiler
- d) Cannot be determined

Answer: c

13. enum types are processed by _____

- a) Compiler
- b) Preprocessor
- c) Linker
- d) Assembler

Answer: a

14. Which of the following statement is false?

- a) Constant variables need not be defined as they are declared and can be defined later
- b) Global constant variables are initialized to zero
- c) const keyword is used to define constant values
- d) You cannot reassign a value to a constant variable

Answer: a

15. Which of the following declaration is not supported by C?

- a) String str;
- b) char *str;
- c) float str = 3e2;
- d) Both String str; & float str = 3e2;

Answer: a

16. Which of the following declaration is illegal?

- a) char *str = "Best C programming classes by Sanfoundry";
- b) char str[] = "Best C programming classes by Sanfoundry";
- c) char str[20] = "Best C programming classes by Sanfoundry";
- d) char[] str = "Best C programming classes by Sanfoundry";

Answer: d



17. Which keyword is used to prevent any changes in the variable within a C program?

- a) immutable
- b) mutable
- c) const
- d) volatile

Answer: c

18. Which of the following is not a pointer declaration?

- a) char a[10];
- b) char a[] = {'1', '2', '3', '4'};
- c) char *str;
- d) char a;

Answer: d

19. Which of the following statement is false?

- a) A variable defined once can be defined again with different scope
- b) A single variable cannot be defined with two different types in the same scope
- c) A variable must be declared and defined at the same time
- d) A variable refers to a location in memory

Answer: c

20. A variable declared in a function can be used in main().

- a) True
- b) False
- c) True if it is declared static
- d) None of the mentioned

Answer: b

21. What is the precedence of arithmetic operators (from highest to lowest)?

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

Answer: a

22. Which of the following is not an arithmetic operation?

- a) a * = 10;
- b) a / = 10;
- c) a ! = 10;



d) a % = 10;

Answer: c

23. Which of the following data type will throw an error on modulus operation(%)?

- a) char
- b) short
- c) int
- d) float

Answer: d

24. Which among the following are the fundamental arithmetic operators, i.e, performing the desired operation can be done using that operator only?

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

Answer: a

25. Are logical operator sequence points?

- a) True
- b) False
- c) Depends on the compiler
- d) Depends on the standard

Answer: a

26. Do logical operators in the C language are evaluated with the short circuit?

- a) True
- b) False
- c) Depends on the compiler
- d) Depends on the standard

Answer: a

27. What is the result of logical or relational expression in C?

- a) True or False
- b) 0 or 1
- c) 0 if an expression is false and any positive number if an expression is true
- d) None of the mentioned

Answer: b



28. Relational operators cannot be used on _____

- a) structure
- b) long
- c) strings
- d) float

Answer: a

29. Which among the following is NOT a logical or relational operator?

- a) !=
- b) ==
- c) ||
- d) =

Answer: d

30. What is the type of the following assignment expression if x is of type float and y is of type int?

y = x + y;

- a) int
- b) float
- c) there is no type for an assignment expression
- d) double

Answer: a

31. What will be the value of the following assignment expression?

(x = foo())!= 1 considering foo() returns 2

- a) 2
- b) True
- c) 1
- d) 0

Answer: a

32. Operation “a = a * b + a” can also be written as _____

- a) a *= b + 1;
- b) (c = a * b)!= (a = c + a);
- c) a = (b + 1)* a;
- d) All of the mentioned

Answer: d

33. What will be the final value of c in the following C statement? (Initial value: c = 2) c <<= 1;



- a) $c = 1$;
- b) $c = 2$;
- c) $c = 3$;
- d) $c = 4$;

Answer: d

34. In expression $i = g() + f()$, first function called depends on _____

- a) Compiler
- b) Associativity of $()$ operator
- c) Precedence of $()$ and $+$ operator
- d) Left to right of the expression

Answer: a

35. Which operators of the following have same precedence? P. " $! =$ ", Q. " $+ =$ ", R. " $< < =$ "

- a) P and Q
- b) Q and R
- c) P and R
- d) P, Q and R

Answer: b

36. Comment on the following statement $n = 1$; `printf("%d, %dn", 3*n, n++)`;

- a) Output will be 3, 2
- b) Output will be 3, 1
- c) Output will be 6, 1
- d) Output is compiler dependent

Answer: d

37. Which is correct representation of C statement? $e = a * b + c / d * f$;

- a) $e = (a * (b + (c / (d * f))))$;
- b) $e = ((a * b) + (c / (d * f)))$;
- c) $e = ((a * b) + ((c / d) * f))$;
- d) Both $e = ((a * b) + (c / (d * f)))$; and $e = ((a * b) + ((c / d) * f))$;

Answer: d

38. While swapping 2 no' what precautions to be taken care? $b = (b / a)$; $a = a * b$; $b = a / b$;

- a) Data type should be either of short, int and long
- b) Data type should be either of float and double
- c) All data types are accepted except for (char *)



d) This code doesn't swap 2 numbers

Answer: b

39. function tolower(c) defined in library <ctype.h> works for _____

- a) Ascii character set
- b) Unicode character set
- c) Ascii and utf-8 but not EBCDIC character set
- d) Any character set

View Answer

Answer: d

40. Which type of conversion is NOT accepted?

- a) From char to int
- b) From float to char pointer
- c) From negative int to char
- d) From double to char

View Answer

Answer: b

41. Which of the following type-casting have chances for wrap around?

- a) From int to float
- b) From int to char
- c) From char to short
- d) From char to int

View Answer

Answer: b

Explanation: None.

42. Which of the following typecasting is accepted by C?

- a) Widening conversions
- b) Narrowing conversions
- c) Widening & Narrowing conversions
- d) None of the mentioned

View Answer

Answer: c

Explanation: None.



43. When do you need to use type-conversions?

- a) The value to be stored is beyond the max limit
- b) The value to be stored is in a form not supported by that data type
- c) To reduce the memory in use, relevant to the value
- d) All of the mentioned

View Answer

Answer: d

44. What is the scope of an external variable?

- a) Whole source file in which it is defined
- b) From the point of declaration to the end of the file in which it is defined
- c) Any source file in a program
- d) From the point of declaration to the end of the file being compiled

View Answer

Answer: d

Explanation: None.

45. What is the scope of a function?

- a) Whole source file in which it is defined
- b) From the point of declaration to the end of the file in which it is defined
- c) Any source file in a program
- d) From the point of declaration to the end of the file being compiled

View Answer

Answer: d

46 In the standard library of C programming language, which of the following header file is designed for basic mathematical operations?

- a) [math.h](#)
- b) [conio.h](#)
- c) [dos.h](#)
- d) [stdio.h](#)

Answer: a

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- a) Constant expressions are evaluated at compile
- b) String constants can be concatenated at compile time



- c) Size of array should be known at compile time
- d) All of these

Option: d

48. Which of the following statements should be used to obtain a remainder after dividing 3.14 by 2.1 ?

- a) `rem = 3.14 % 2.1;`
- b) `rem = modf(3.14, 2.1);`
- c) `rem = fmod(3.14, 2.1);`
- d) Remainder cannot be obtained in floating point division.

Answer: Option c

49. Which of the following special symbols is allowed in a variable name?

- a) * (asterisk)
- b) | (pipe)
- c) - (hyphen)
- d) _ (underscore)

Answer: Option d

50. By default a real number is treated as a

- a) A.float
- b) B.double
- c) C.long double
- d) D. far double

Answer: Option b



UNIT 2 : Managing I/O Operations

1. Which among the following is the odd one out?

- a) printf
- b) fprintf
- c) putchar
- d) scanf

Answer: d

2. For a typical program, the input is taken using _____

- a) scanf
- b) Files
- c) Command-line
- d) All of the mentioned

Answer: d

3. What does the following command line signify? `prog1|prog2`

- a) It runs prog1 first, prog2 second
- b) It runs prog2 first, prog1 second
- c) It runs both the programs, pipes output of prog1 to input of prog2
- d) It runs both the programs, pipes output of prog2 to input of prog1

Answer: c.

4. What is the default return-type of `getchar()`?

- a) char
- b) int
- c) char *
- d) reading character doesn't require a return-type

Answer: b

5. What is the value of EOF?

- a) -1
- b) 0
- c) 1
- d) 10

Answer: a

6. What is the use of `getchar()`?

- a) The next input character each time it is called
- b) EOF when it encounters end of file
- c) The next input character each time it is called EOF when it encounters end of file
- d) None of the mentioned



Answer: c

7. Which of the following statement is true?

- a) The symbolic constant EOF is defined in <stdio.h>
- b) The value is -1
- c) The symbolic constant EOF is defined in <stdio.h> & value is -1
- d) Only value is -1

Answer: c

8. What is the return value of putchar()?

- a) The character written
- b) EOF if an error occurs
- c) Nothing
- d) Both character written & EOF if an error occurs

Answer: d

9. Escape sequences are prefixed with _____

- a) %
- b) /
- c) ”
- d) None of the mentioned

Answer: d

10. What is the purpose of sprintf?

- a) It prints the data into stdout
- b) It writes the formatted data into a string
- c) It writes the formatted data into a file
- d) None of the mentioned

Answer: b.

11. The syntax to print a % using printf statement can be done by _____

- a) %
- b) \%
- c) ‘%’
- d) %%

Answer: d

12. What are the Properties of the first argument of a printf() functions?

- a) It is defined by a user
- b) It keeps the record of the types of arguments that will follow
- c) There may no be first argument
- d) None of the mentioned

Answer: b



13. What is the difference between %e and %g?

- a) %e output formatting depends on the argument and %g always formats in the format [-]m.dddddd or [-]m.dddddE[+|-]xx where no.of ds are optional
- b) %e always formats in the format [-]m.dddddd or [-]m.dddddE[+|-]xx where no.of ds are optional and output formatting depends on the argument
- c) No differences
- d) Depends on the standard

Answer: b

14. Which of the following function with ellipsis are illegal?

- a) void func(...);
- b) void func(int, ...);
- c) void func(int, int, ...);
- d) none of the mentioned

Answer: a.

15. Which of the following data-types are promoted when used as a parameter for an ellipsis?

- a) char
- b) short
- c) int
- d) none of the mentioned

Answer: a

16. Which header file includes a function for variable number of arguments?

- a) stdlib.h
- b) stdarg.h
- c) ctype.h
- d) both stdlib.h and stdarg.h

Answer: a

17. Which of the following macro extracts an argument from the variable argument list (ie ellipsis) and advance the pointer to the next argument?

- a) va_list
- b) va_arg
- c) va_end
- d) va_start

Answer: b

18. The type va_list in an argument list is used _____

- a) To declare a variable that will refer to each argument in turn;
- b) For cleanup
- c) To create a list
- d) There is no such type



Answer: a

19. In a variable length argument function, the declaration “...” can _____

- a) Appear anywhere in the function declaration
- b) Only appear at the end of an argument list
- c) Nothing
- d) None of the mentioned

Answer: b

20. Each call of va_arg _____

- a) Returns one argument
- b) Steps va_list variable to the next
- c) Returns one argument & Steps va_list variable to the next
- d) None of the mentioned

Answer: c

21. The standard header _____ is used for variable list arguments (...) in C.

- a) <stdio.h >
- b) <stdlib.h>
- c) <math.h>
- d) <stdarg.h>

Answer: d

22. What is the purpose of va_end?

- a) Cleanup is necessary
- b) Must be called before the program returns
- c) Cleanup is necessary & Must be called before the program returns
- d) None of the mentioned

Answer: c

23. Which of the following is NOT a delimiter for an input in scanf?

- a) Enter
- b) Space
- c) Tab
- d) None of the mentioned

Answer: d

24. If the conversion characters of int d, i, o, u and x are preceded by h, it indicates?

- a) A pointer to int
- b) A pointer to short
- c) A pointer to long
- d) A pointer to char

Answer: b



25. Which of the following doesn't require an & for the input in scanf()?

- a) char name[10];
- b) int name[10];
- c) float name[10];
- d) all of the mentioned

Answer: a

26. Which of the following is an invalid method for input?

- a) scanf(“%d%d%d”,&a, &b, &c);
- b) scanf(“%d %d %d”, &a, &b, &c);
- c) scanf(“Three values are %d %d %d”,&a,&b,&c);
- d) none of the mentioned

Answer: d

27. Which of the following represents the function for scanf()?

- a) void scanf(char *format, ...)
- b) int scanf(char *format, ...)
- c) char scanf(int format, ...)
- d) char *scanf(char *format, ...)

Answer: b

28. What does scanf() function return?

- a) Number of successfully matched and assigned input items
- b) Nothing
- c) Number of characters properly printed
- d) Error

Answer: a

29. The conversion characters d, i, o, u, and x may be preceded by h in scanf() to indicate?

- a) A pointer to short
- b) A pointer to long
- c) Nothing
- d) Error

Answer: a

30. The syntax of printf() function is printf(“control string”, variable list) ;what is the prototype of the control string?

- a) %[flags][.precision][width][length]specifier
- b) %[flags][length][width][.precision]specifier
- c) %[flags][width][.precision][length]specifier
- d) %[flags][.precision][length][width]specifier

Answer: c



31. The parameter control string in the printf () is a C String that contains text to be _____

- a) taken from a standard output device
- b) written on to the standard output device
- c) received from the standard output device
- d) nothing can be said

Answer: b

32. Output justification such as decimal point, numerical sign, trailing zeros or octal are specified.

- a) specifier
- b) flags
- c) precision
- d) decimal

Answer: b

33. What symbol is used to Left-justify within the data given field width?

- a) -(minus sign)
- b) +(plus sign)
- c) #
- d) 0

Answer: a

34. What specifies the minimum number of characters to print after being padded with zeros or blank spaces?

- a) flags
- b) length
- c) width
- d) precision

Answer: c

35. The maximum number of characters to be printed is specified by _____

- a) precision
- b) width
- c) length
- d) flags

Answer: a

36. _____ is used to define the type and the interpretation of the value of the corresponding argument.

- a) precision
- b) specifiers
- c) flags
- d) decimal

Answer: b

37. A conversion specification %7.4f means _____

- a) print a floating point value of maximum 7 digits where 4 digits are allotted for the digits after the decimal point



- b) print a floating point value of maximum 4 digits where 7 digits are allotted for the digits after the decimal point
- c) print a floating point value of maximum 7 digits
- d) print a floating point value of minimum 7 digits where 4 digits are allotted for the digits after the decimal point

Answer: a

38. Choose the correct description for control string `%-+7.2f`.

- a) – means display the sign, + means left justify, 7 specifies the width and 2 specifies the precision
- b) – means left justify, + means display the sign, 7 specifies the width and 2 specifies the precision
- c) – means display the sign, + means left justify, 7 specifies the precision and 2 specifies the width
- d) – means left justify, + means display the sign, 7 specifies the precision and 2 specifies the width

Answer: b

39. What error is generated on placing an address operator with a variable in the printf statement?

- a) compile error
- b) run-time error
- c) logical error
- d) no error

Answer: b

40. If by mistake you specify more number of arguments, the excess arguments will _____

- a) be ignored
- b) produce compile error
- c) produce run-time error
- d) produce logical error

Answer: a

41. What happens when zero flag is used with left justification?

- a) data is padded with zeros
- b) zero flag is ignored
- c) data is padded with blank spaces
- d) will give error

Answer: b

42. For floating point numbers, the precision flag specifies the number of decimal places to be printed. When no precision modifier is specified, printf() prints _____

- a) six decimal positions
- b) five decimal positions
- c) four decimal positions
- d) three decimal positions

Answer: a

43. What will the given code result in printf(“\n you are\”awesome \” “);?

- a) compile error
- b) run-time error



c) you are "awesome"

d) you are awesome

Answer: c

44. What will be the output for the given code `printf("\n The number is %07d",1212);`

a) The number is 0001212

b) The number is 1212

c) The number is 1212

d) The number is 1212000

Answer: a

45. The syntax of the `scanf()` is `scanf("control string ", arg1,arg2,arg3,.....,argn);` the prototype of control string is

a) `[=%[width][modifiers]type=]`

b) `[=%[modifiers][width]type=]`

c) `[=%[width] [modifiers]]`

d) `[width][modifiers]`

Answer: a

46. What is the use of symbol `*` in the control string as shown `[=%[*][width] [modifiers] type=]`?

a) `*` is optional and used when the data should be read from the stream but ignored

b) `*` is not optional, used to read data from the stream but it is not ignored

c) `*` is not optional, it is used to read data stream but ignored

d) `*` is optional and used to read data from stream but it is not ignored

Answer: a

47. What action is carried out by `scanf` if a user enters any blank spaces, tabs, and newlines?

a) consider as input

b) ignores it

c) produces error

d) nothing can be said

Answer: b

48. What error will generate if the read and write parameters are not separated by commas?

a) run-time error

b) compile error

c) logical error

d) no error

Answer: b

49. _____ is an optional argument that gives the maximum number of characters to be read.

a) modifiers

b) width

c) precision



d) length

Answer: b

50. Explain the format string "%5d%s %c"

a) five characters as a decimal integer, then reads the remaining as a string and then scans the first non-whitespace character

b) compile error

c) run-time error

d) read first five characters as a decimal and ignore the rest

Answer: a

51. Select the correct value of i from given options `i=scanf("%d %d", &a, &b);`

a) 1

b) 2

c) 3

d) No value assigned

Answer: b

52. Select the correct value of i from given options `i=scanf("%d %d", &a, &b);`

a) 1

b) 2

c) 3

d) No value assigned

Answer: b

53. If the user enters 1 3.2 s, what value will be returned by the `scanf()?scanf("%d %f %c", &s1, &s2, &s3);`

a) 1

b) 2

c) 3

d) No return value

Answer: c

54. If the user enters 1 s 3.2, what value will be returned by the `scanf()?scanf("%d %f %c", &a, &b, &c);`

a) 1

b) 2

c) 3

d) no return value

Answer: a

55. What error will be generated on using incorrect specifier for the datatype being read?

a) compile error

b) run-time error

c) logical error



d) no error

Answer: b

56. What is the prototype of scanf function?

- a) scanf("controlstring",arg1,arg2,arg3,....,argn);
- b) scanf("control string", variable list);
- c) scanf(" variable list,", control string);
- d) scanf("arg1,arg2,arg3,....,argn", control string);

Answer: a

57. What is the meaning of the following C statement? `scanf("%[^\n]s", ch);`

- a) read all character except new line
- b) read all characters
- c) read only new line character
- d) syntax error

Answer: a

58. What is the qualifying input for the type specifier G?

- a) floating point numbers
- b) floating point numbers in exponential format
- c) floating point numbers in the shorter of exponential format
- d) not a type specifier

Answer: c

59. scanf() is a predefined function in_____header file.

- a) stdlib. h
- b) ctype. h
- c) stdio. h
- d) stdarg. h

Answer: c

60. What does the C statement given below says? `scanf("%7s",ch);`

- a) read string with minimum 7 characters.
- b) read string with maximum 7 characters
- c) read string exactly to 7 characters
- d) read string with any number of characters

Answer: b