**14.1 Introduction**

**14.2 Redirecting I/O**

14.1 A *pipe* (|) causes

(a) the output of the first program to be redirected to the input of the second

(b) the output of the second program to be redirected to the input of the first

(c) the input of the first program to be redirected to the input of the second

(d) the input of the second program to be redirected to the input of the first

ANS: (a)

14.2 Which of the following symbols is *not* used in UNIX for redirecting input or output?

(a) >

(b) |

(c) $

(d) >>

ANS: (c)

**14.3 Variable-Length Argument Lists**

14.3 Which of the following function prototypes is correct?

(a) double average(int, ...)

(b) double average(..., int);

(c) double average(int, ...);

(d) double average(int, ... , int);

ANS: (c)

14.4 What macro expands to an expression of the value and type of the next argument in a variable-length argument list?

(a) va\_end

(b) va\_start

(c) va\_list

(d) va\_arg

ANS: (d)

**14.4 Using Command-Line Arguments**

14.5 How many arguments can be passed to main from the command line?

(a) 1

(b) 2

(c) 3

(d) as many as you want

ANS: (d)

14.6 Which of the following operating systems require special settings for processing command-line arguments?

(a) Macintosh

(b) DOS

(c) UNIX

(d) all of the above

ANS: (a)

**14.5 Notes on Compiling Multiple-Source-File Programs**

14.7 extern

(a) is a keyword to indicate that a variable is defined in a different file

(b) is used to access command-line arguments

(c) can be used as a control structure

(d) is a data type

ANS: (a)

14.8 Global variables can be used to increase performance because

(a) global variables are accessed faster than local variables

(b) the overhead of passing data between functions is eliminated

(c) they are stored more compactly than local variables

(d) all of the above

ANS: (b)

14.9 Which of the following is *not* an error?

(a) having a function definition that spans two files

(b) using a global variable in a file it was not defined in without defining it with the extern modifier

(c) defining a function prototype without the extern keyword when the definition is in another file

(d) having global variables in different files with the same name

ANS: (c)

14.10 Which of the following restricts the scope of a global variable to the file it’s defined in?

(a) extern

(b) static

(c) int

(d) local

ANS: (b)

**14.6 Program Termination with exit and atexit**

14.11 When exit is called with EXIT\_FAILURE

(a) the program quits immediately without returning anything

(b) the program prints an error message and quits the current function

(c) the implementation-defined value for unsuccessful termination is returned

(d) the program breaks out of a loop

ANS: (c)

14.12 The function atexit takes as an argument

(a) the line number of where the program should exit

(b) a function that is executed when the program is exited unsuccessfully

(c) a function to be called when the program ends successfully

(d) normally the symbolic constant EXIT\_SUCCESS or EXIT\_FAILURE

ANS: (c)

**14.7 Suffixes for Integer and Floating-Point Literals**

14.14 A floating-point constant that’s not suffixed is of type

(a) double

(b) float

(c) unsigned float

(d) long double

ANS: (a)

**14.8 Signal Handling**

14.16 SIGFPE signals

(a) an erroneous arithmetic operation

(b) the abnormal termination of the program

(c) the detection of an illegal instruction

(d) an invalid access to storage

ANS: (a)

14.17 Which of the following will *not* generate a signal defined in the header signal.h?

(a) a call to exit

(b) dividing by zero

(c) a call to abort

(d) an invalid access to storage

ANS: (a)

**14.9 Dynamic Memory Allocation with calloc and realloc**

14.18 realloc is conventionally used to

(a) allocate memory for a single object

(b) allocate memory for an array of objects

(c) change the size of an object previously allocated

(d) change the contents of an object previously allocated

ANS: (c)

**14.10 Unconditional Branching with goto**

14.19 The goto statement is which of the following?

(a) an unconditional branch

(b) an instance of unstructured programming

(c) used to change the program’s flow of control

(d) all of the above

ANS: (d)

14.20 A *label* must

(a) be defined as a global constant prior to use

(b) appear in the same function as the goto statement that refers to it

(c) be of type int

(d) all of the above

ANS: (b)