Name: _____

CS124 Unit 3 Practice Test

Problem	Question	Choices	Answer
1	To create an input or output file stream, which header file must you include?	a) # include <iostream> b) #include <fstream> c) #include <iomanip> d) #include <cassert>	B

2	How do you open a file stream to write to a file called "data.txt"?	a) Ifstream f("data.txt");
		b) ofstream f("data.txt");
		c) fin f("data.txt");
		d) fout f("data.txt");
			B

3	What is the best loop to use to read each word in a file?	a) while loop b) do while loop c) for loop d) random loop	A

4	Which of the following will read a single word from a file using a stream called "fileIn"?	a) fileIn.read(x);
		b) fileIn.write(x);
		c) fileIn >> x;
		d) fileIn << x;
			C

5	Which function can be called to check if a file does not exist?	a) fail() b) close() c) error() d) clear()	A

6	When reading a file using a stream called "fin", what boolean condition would you use to read one word at a time into a variable text:
	
	while (<???>)
	{
	   // Do something with the variable text
	}
		a) fin << text
		b) !fin >> text
		c) text != 0
		d) fin >> text
			D

7	Which of the following will result in a compiler error?	a) int data[5]; b) int data[]; c) int data[] = {1, 2, 3, 4, 5}; d) int data[5] = {1, 2, 3, 4, 5};	B

8	Which statement will set the second element of an integer array of size 10?	a) data[2] = 14;
		b) data + 2 = 14;
		c) data[1] = 14;
		d) data + 1 =14;
			C

9	What is the best loop to traverse an array of doubles?	a) while loop b) do while loop c) for loop d) random loop	C

Problem	Question	Choices	Answer
10	Which of the following is <u>not</u> a true statement about character arrays?	a) You can print out an entire character array using cout. b) You can read in an entire character array using cin. c) Compiler will add a NULL character at the end of text. d) You can compare two char arrays using ==	D
11	What is the maximum length of a word that can fit into char word[256]?	a) 254 b) 255 c) 256 d) 257	B
12	What while loop would you most likely use to traverse char data[100]?	a) while (data) b) while (data[i] != 0) c) while (data[i] == 0) d) while (!data)	B
13	Which of the following statements is <u>false</u>?	a) Passing an array of integers does not require an array size parameter. b) Passing an array of characters does not require an array size parameter. c) Passing an array is done by reference. d) When passing an array, the address to the first element of the array is passed to the function.	A
14	How do you declare an array of 20 words where each word is no more than 40 characters long (including the NULL character)?	a) char[20] data[40]; b) char[40] data[20]; c) char data[40][20]; d) char data[20][40];	D
15	What function declaration would be used to receive an array of 10 where each element has an array of 5 integers within it?	a) void process(int data[][5], int size) b) void process(int data[][], int size) c) void process(int data[10][5], int size) d) void process(int data[][10], int size)	A

16	What is wrong with this code?
	
	int data[5] = {1, 1, 2, 3, 5};
	for (int i=1; i<=5; i++)
	{
	  cout << data[i] << " ";
	}
		a) Wrong type of loop is used to traverse the array
		b) Incorrect initialization of the data array
		c) Array accessed out of bounds
		d) Will not compile
			C

17	If you have an array of 50 words where each word is no more than 20 characters long (including the NULL character), how would you access the 3rd character of the 10th word?	a) data[3][10] b) data[10][3] c) data[9][2] d) data[2][9]	C
18	How would you obtain the address of a variable x?	a) *x b) &x c) x* d) ^x	B

Problem	Question	Choices	Answer

19	What is the output of this code?
	
	int x = 17;
	int y = 18;
	int *xPtr = &x;
	int *yPtr = &y;
	*xPtr = *yPtr – y;
	cout << x;
		a) 0
		b) 17
		c) 18
		d) 1
			A

20	If you have the following code:
	
	int *ptr = 0;
	int value = 5;
	
	which of the following will create a segmentation fault?
		a) *ptr = value;
		b) ptr = &value;
		c) ptr++;
		d) value--;
			A

21	What is the output of the following code: int data[6] = {9, 7, 5, 3, 1, -1}; cout << *(data + 2);	a) 9 b) 7 c) 5 d) 3	C
22	Which of the following statements is true about the relationship between arrays and pointers?	a) x[i] is the same as *x+i b) x[i] is the same as *(x+i) c) x[i] is the same as &x+i d) x[i] is the same as &(x+i)	B

23	When traversing a char array using a pointer, what boolean condition would you put in the loop?
	
	char text[] = "Unit Test 3";
	char *pos = text;
	while (<???>)
	{
	  cout << *pos;
	  pos++;
	}
		a) !pos
		b) pos == 0
		c) pos > 0
		d) *pos != 0
			D

24	What is the output of the following code:
	
	int x = 1;
	int y = -1;
	int *ptr;
	if (x > y)
	{
	  ptr = &x;
	}
	else
	{
	  ptr = &y;
	}
	cout << *ptr;
		a) 1
		b) -1
		c) Random address value
		d) Compiler Error
			A

25	If the length of an array is stored in a variable called "size", which of the following would give you the value of the last element of the array?	a) *(array + size) b) *(array + size – 1) c) *(array + size + 1) d) *array + size	B

Problem	Question	Choices	Answer

26	For the following code:
	
	int x = 5;
	
	which of the following would not result in a compiler error?
		a) int *x = &x;
		b) float *y = &x;
		c) int *z = &x;
		d) char *w = &x;
			C

27	For the following character array: char school[10] = "BYU-I"; what is the address of the letter 'U'?	a) school b) *school+2 c) *(school+2) d) school+2	D

28	If the variable "selection" is equal to 2, then what would the output of the following code be:
	
	switch(selection)
	{
	  case 0:
	  case 1:
	    cout << "a";
	    break;
	  case 2:
	    cout << "b";
	  case 3:
	    cout << "c";
	    break;
	  default:
	    cout << "d";
	}
		a) abcd
		b) b
		c) bc
		d) bcd
			C

29	Which of the following is true about case labels within a switch statement?	a) Case labels can contain variables b) Case labels can be a single character c) Case labels can be floats d) Case labels can define a range using a comma	B

30	Which statement is equivalent to:
	
	If (x > 5)
	{
	  y = 2 * x;
	}
	else
	{
	  y = 3 *x;
	}
		a) y = (x > 5) ? 2 * x : 3 * x;
		b) y = (x > 5) ? 3 * x : 2 * x;
		c) y = (x > 5) : 2 * x ? 3 * x;
		d) y = (x > 5) : 3 * x ? 2 * x;
			A