**CST 180 – Looping Activity Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Show the output produced by the following segments of code.

**1. i = 30;**

**j = 10;**

**if (i > 10 + j)**

**while (i > j)**

**{**

**i = i - 10;**

**cout << i << endl;**

**}**

**else**

**while (j >= i)**

**{**

**j = j - 10;**

**cout << j << endl;**

**}**

**2. i = 10;**

**j = 10;**

**if (i > 10 + j)**

**while (i > j)**

**{**

**i = i - 10;**

**cout << i << endl;**

**}**

**else**

**while (j >= i)**

**{**

**j = j - 10;**

**cout << j << endl;**

**}**

**3. for (i = 1 ; i <= 10 ; i++)**

**{**

**if (i == 2)**

**cout << "hello" << endl;**

**else if (i == 3)**

**cout << "goodbye" << endl;**

**else if (i == 4)**

**cout << "why" << endl;**

**if (i < 5)**

**cout << "help" << endl;**

**if (i > 6)**

**cout << "blue" << endl;**

**}**

**4. Which loop(s) are pre-test loop(s)? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Which loop(s) are post-test loop(s)? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**5. What does the following program segment do? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**punctuation = letters = digits = 0;**

**cout << "enter any character or '/' to quit: ";**

**cin >> character;**

**while (character != '/')**

**{**

**if (character == ',' || character == '.')**

**punctuation++;**

**else if (character >= 'a' && character <= 'z' ||**

**character >= 'A' && character <= 'Z')**

**letters++;**

**else if (character >= '0' && character <= '9')**

**digits++;**

**cout << "enter any character or '/' to quit: ";**

**cin >> character;**

**}**

**cout << punctuation << ' ' << letters << ' ' << digits << endl;**

Show the output produced by the following segments of code.

**6. w = 0; 7. w = 0;**

**for (h = -2; h <= 5; ++h) for (h = 10; h > 0; --h)**

**w = w + h; cout << w;**

**cout << w;**