AUSTIN COMMUNITY COLLEGE DEPARTMENT OF COMPUTER STUDIES AND ADVANCED TECHNOLOGY

COSC 2325 (3-2-4) – Computer Organization and Machine Language Lab 5

1. Implement the following code in ARMv8 assembly. Show your code (just copy/paste your working/tested/debugged code solution) for each exercise.

```
a. a=9
  b=5
  if (a >b):
    a+=1

b. i=5
  j=5
  if (i!=j):
    f=g+2
  else:
    f=g+h

c. a=5
  b=3
  total=a-b
```

2. Implement the following code in ARMv8 assembly. Show your code (just copy/paste your working/tested/debugged code solution)

```
a=4
b=2
c=1
z=a*(b+c)
```

3. How can you implement the following c-code for loop in ARMv8 assembly? Show your code (just copy/paste your working/tested/debugged code solution)

```
m=2
for (k=0; k<5; k++):
m=m+m;
```