

Midterm Exam
COMP 150: Introduction to Computing

LUC username: _____

Full name: _____

Date: _____

For each of the following problems, answer to the best of your ability. Use legible penmanship and complete sentences where merited.

By signing your name above, you agree to the Loyola University Chicago academic honesty policy. This exam is closed-world (no notes, internet, books, neighbors, etc.).

1. Complete the following boolean logic expressions. Write whether the result is True or False.

a = 5

b = 10

c = -5

d = 0

t = True

f = False

a > b = _____

d >= a = _____

f == f = _____

t == 1 = _____

t > f = _____

t and t = _____

t and f = _____

f and f = _____

f or f = _____

t or f = _____

(t or f) and t = _____

(t and t) and t = _____

(f or f) or f = _____

(t or f) and f = _____

2. Consider the following code snippets. Write what the code outputs to the console, e.g.:

```
x = 5
if (x > 0):
    print("A")
    _____
else:
    print("B")
```

Outputs:

```
z = 500
if (z > 1000):
    print("A")
    _____
else if (z > 25) and (z < 400):
    print("B")
else:
    print("C")
```

Outputs:

```
for i in range(0, 10):
    print(i)
    _____
```

Outputs:

```
for i in range(0, 10):
    print(i * 2)
    _____
```

Outputs:

```
for i in range(0, 10):
    if (i == 2) or (i == 5):
        print(i * 10)
    _____
    else:
        print(i)
```

Outputs:

This image shows a blank sheet of white paper with horizontal black ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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5. Discuss how the move from large, purpose-built computers to mainframe computers allowed programmers, users, and computer administrators to become more specialized professions.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

6. Discuss supercomputers. You might consider discussing how users interact with them, how they scale, and their purpose compared to other types of computers.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on the right side, suggesting it's resting on a surface.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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[illegible]

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