

CIS1068, Program Design and Abstraction

Part 1: Given the value of variable $x=3$, write down the evaluation value (true/false) of the expression.

- 1) () `if (x>3 && (x<4 || x >6))`
- 2) () `if (x>2 && (x<4 || x >6))`
- 3) () `if (x>3 && x<4 || x >6)`
- 4) () `if (x>2 && x<4 || x >6)`
- 5) () `if (x>2 && (x>4 || x <0))`
- 6) () `if (x>3 || (x>4 && x <6))`
- 7) () `if (x>2 && x>4 || x <0)`
- 8) () `if (x>3 || x>4 && x <6)`
- 9) () `if (x>2 || (x<4 && x >6))`
- 10) () `if (x>2 || x<4 && x >6)`
- 11) () `if (x>3 || (x<4 && x >6))`
- 12) () `if (x>3 || x<4 && x >6)`

Part 2:

1. The following program will print out “passed” ()
`grade = 70;`
`if (grade >=70)`
`System.out.println(“passed”);`
2. The following program will print out “passed” ()
`grade =70;`
`if (grade >70)`
`System.out.println (“passed”);`
`else`
`System.out.println(“failed”);`

3. The following program will print out “passed” and “good” ()

```
grade =70;
if (grade >= 60) {
  if (grade >= 70)
  System.out.println ( “passed”);
  System.out.println (“good”);
}
else
System.out.println (“failed”);
```

4. The following program will print out “passed” and “failed” ()

```
grade =70;
if (grade >= 60) {
  if (grade >= 70)
  System.out.println ( “passed”);
  System.out.println (“good”);
}
else
System.out.println (“failed”);
```

5. The following program will print out “good” and “failed” ()

```
grade =70;
if (grade >= 60) {
  if (grade >= 70)
  System.out.println ( “passed”);
  System.out.println (“good”);
}
else
System.out.println (“failed”);
```

Part 3:

1) The following program will print out ()

```
x=50;
if (x<60)
  System.out.println (“Case 1”);
else
  if (x < 80)
    System.out.println (“Case 2”);
  else
    System.out.println (“Case 3”);
```

(a) Case 1 (b) Case 2 (c) Case 3 (d) Others

2) The following program will print out ()

```
x=90;
if (x<60)
    System.out.println ("Case 1");
System.out.println ("Case 2");
```

- (a) Case 1 (b) Case 2 (c) Others

3) The following program will print out ()

```
x=50;
y=1;
if (x>60)
    y=2;
if (x < 80)
    y=3;
else
    y=4;
System.out.println (y);
```

- (a) 1 (b) 2 (c) 3 (d) 4

4) The following program will print out ()

```
x=50;
y=0;
if (x>60)
    y+=1;
if (x < 80)
    y+=2;
else
    y+=3;
System.out.println (y);
```

- (a) 0 (b) 1 (c) 2 (d) 3 (e) 4 (f) 5 (g) 6

5) The following program will print out ()

```
x=50;
y=0;
if (x>60) {
    y+=1;
    if (x < 80)
        y+=2;
}
else
    y+=3;
System.out.println (y);
```

- (a) 0 (b) 1 (c) 2 (d) 3 (e) 4 (f) 5 (g) 6