



**King Saud University**  
**College of Computer and Information Sciences**  
**Computer Science Department**

**Duration** 90 min

**Course Code:** CSC 111

**Course Title:** Computer Programming-I

**Semester:** Spring 2019

**Exercises Cover Sheet:** Mid 1 Exam (A)

**Student Name:**

**Student ID:**

**Student Section No.**

Tick the Relevant	Computer Science B.Sc. Program ABET Student Outcomes	Question No. Relevant Is Hyperlinked	Covering %
✓	a) Apply knowledge of computing and mathematics appropriate to the discipline;	1,2	50%
	b) Analyze a problem, and identify and define the computing requirements appropriate to its solution		
	c) Design, implement and evaluate a computer-based system, process, component, or program to meet desired needs;		
	d) Function effectively on teams to accomplish a common goal;		
	e) Understanding of professional, ethical, legal, security, and social issues and responsibilities;		
	f) Communicate effectively with a range of audiences;		
	g) Analyze the local and global impact of computing on individuals, organizations and society;		
	h) Recognition of the need for, and an ability to engage in, continuing professional development;		
✓	i) Use current techniques, skills, and tools necessary for computing practices.	1,2	50%
	j) Apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices;		
	k) Apply design and development principles in the construction of software systems of varying complexity;		

**Question 1. Multiple-Choice Questions (5 Marks)**

Select an answer for each question and write it in the following table:

Question	Answer
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

**1. What, if any, is the output of this program?**

```
public class Output {  
    public static void main(String[] args) {  
        int x=5 , y=50;  
        z= y/x ;  
        System.out.println(x +", "+ y +", "+ z);  
    }  
}
```

- (A) 5,50,10      (B) 5,10,50      (C) 5,50,0      (D) Compilation error

**2. Which one of the following is not a primitive data type?**

- (A) long      (B) char      (C) String      (D) boolean

**3. What, if any, is the output of this program?**

```
public class ConfusingIf {  
    public static void main(String[] args) {  
        double balance=300,target=1000;  
        String message="";  
        if(balance<target)  
            if(target%10!=0) message="Case 1";  
            else message="Case 2";  
        else if(balance==target) message="Case 3";  
        else message="Case 4";  
        System.out.println(message);  
    }  
}
```

- (A) Case 1      (B) Case 2      (C) Case 4      (D) Compilation error

**4. Which boolean expression does not cause a run time error in the following code?**

```
public class LogicalOperator {
    public static void main(String[] args) {
        int dividend=200,divisor=0;
        if( ..... )
            System.out.println(":(");
        else
            System.out.println(":)");
    }
}
```

- (A) divisor!=0 && dividend/divisor>1    (B) divisor!=0 & dividend/divisor>1  
(C) divisor==0 && dividend/divisor>1    (D) divisor==0 & dividend/divisor>1

**5. How many times this loop will iterate?**

```
int n=50;
while (n>=10)
    n-=n/n;
```

- (A) 10                      (B) 25                      (C) 40                      (D) 50

**6. What is the value of the variable `var` after these statements?**

```
int x=5;
double var= x/2;
```

- (A) 2                      (B) 2.0                      (C) 2.5                      (D) Compilation error

**7. What is the output of this program?**

```
public class StringClass {
    public static void main(String[] args) {
        String t1="con",t2="cat";
        String t3=t2+t1;
        if(t3.equals(t2+t1))
            System.out.print(t3);
        else
            System.out.print(t1);
    }
}
```

- (A) con                      (B) cat                      (C) concat                      (D) catcon

**8. What is the value of the variable `op` after this statement?**

```
int op= 1 + 2 * 3 % (7 - 1);
```

- (A) 0                      (B) 1                      (C) 2                      (D) -1

**9. What is the output of this program?**

```
public class WhatDoYouThink {  
    public static void main(String[] args) {  
        int a=4,b=2;  
        System.out.print(a + b);  
        System.out.print(", " + a + b + ",");  
        System.out.print(a + b + ",");  
    }  
}
```

- (A) 6,6,6,                      (B) 42,42,42,                      (C) 42,6,42,                      (D) 6,42,6,

**10. What is the value of the variable i after these statements?**

```
int i=1;  
i=i+++i;
```

- (A) 1                      (B) 2                      (C) 3                      (D) Compilation error

**Question 2. (5 marks)**

**2.1) Write down the output of each of the following code segments: (4 marks)**

Code	Output
<pre>double Pi=3.14159; System.out.print("Pi is \" + Pi ");</pre>	
<pre>boolean b= 10&gt;-1 &amp;&amp; 5/10!=0.5; System.out.print(b);</pre>	
<pre>double grade=89.6; double bonus= grade++ +-1; System.out.print((int)bonus);</pre>	
<pre>int i=1; while (i&lt;10)     i+=2; System.out.print(i);</pre>	

**2.2) Convert the following if-else statement to an equivalent switch statement: (1 mark)**

```
char c='F';
String s;
if (c=='A' || c=='B')
    s="Good";
else if (c=='C')
    s="OK";
else
    s="?";
System.out.println(s);
```

Answer:

Result					
Question No.	Relevant Student Outcome	SO is Covered by %	Full Mark	Student Mark	Assessor's Feedback
1	a	50	5		
2	i	50	5		
Totals		100%	10		
I certify that the work contained within this assignment is all my own work and referenced where required.  Student Signature: _____ Date: _____					Feedback Received:  Student Signature: _____ Date: _____