

		<h1 style="text-align: center;">King Saud University</h1> <p style="text-align: center;">College of Computer and Information Sciences Computer Science Department</p>	
		Course Code:	CSC 111
		Course Title:	Introduction to Programming
		Semester:	
		Exercises Cover Sheet:	Mid 1 Exam
		Duration: 90 min	
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. (6 Marks)

Put your answers of the question 1 (multiple choice questions) in the following table:

Question	Answer
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

1) What is the output of the following program?

```
public class CSC111Mid1Questions {  
  
    public static void main(String[] args)  
    {  
        int a = 34, b = 21, c = a++ + ++b, d = --a + --b + c--;  
        System.out.println("A" + a + "B" + b + "C" + c + "D" + d);  
    }  
  
}
```

a) A34B22C55D111

b) A33B21C55D111

c) A33B22C55D111

d) A34B21C55D111

2) What is the output of the following program?

```
public class CSC111Mid1Questions {  
  
    public static void main(String[] args)  
    {  
        double a = 5.4;  
        int b = 4;  
  
        System.out.println((float)a/b-4);  
    }  
  
}
```

a) -2.0

b) -2

c) -2.65

d) Runtime error

3) What is the output of the following program?

```
public class CSC111Mid1Questions {  
  
    public static void main(String[] args)  
    {  
        String _aA = "123";  
        char $1 = '1';  
  
        System.out.println(aA.charAt(0).equals($1));  
    }  
  
}
```

a) Runtime error

b) Compilation error

c) 1

d) 2

4) What is the output of the following program?

```
public class CSC111Mid1Questions {  
  
    public static void main(String[] args)  
    {  
        int x = 8, y;  
        System.out.println(++x * --y + " " + --x);  
    }  
}
```

a) Compilation error

b) 7

c) -9 8

d) 9 8

5) What is the output of the following program?

```
public class CSC111Mid1Questions {  
  
    public static void main(String[] args)  
    {  
        int a,b,c,d;  
        a=b=c=d=20;  
        a+=b-=c*=d%=20;  
        System.out.println(a+" "+b+" "+c+" "+d);  
    }  
}
```

a) 40 20 0 0

b) Compilation error

c) Runtime error

d) 20 0 0 20

6) What is the output of the following program?

```
public class CSC111Mid1Questions {  
  
    public static void main(String[] args)  
    {  
        int a=1,b=2,c=3,d=4,e=5,f=6;  
        double answer = a*((b*10)/d-c*(f%e));  
        System.out.println(answer);  
    }  
}
```

a) 2

b) 2.0

- c) 3.0
- d) Compilation error

7) What is the output of the following program?

```
public class CSC111Mid1Questions {  
    public static void main(String[] args)  
    {  
        System.out.println(true && false != false || false == false);  
    }  
}
```

- a) false
- b) 1
- c) true
- d) 0

8) What is the output of the following program?

```
public class CSC111Mid1Questions {  
    public static void main(String[] args)  
    {  
        String a = "about";  
        char b = a.charAt(2-2%2);  
        System.out.println("BBBB is " + b);  
    }  
}
```

- a) Compilation error
- b) BBB is a
- c) BBB is b
- d) BBB is o

9) What is the output of the following program:

```
boolean var1 = false;  
boolean var2 = true;  
if (!var1)  
    System.out.println(var1);  
else  
    System.out.println(var2);
```

- a) 0
- b) 1
- c) true
- d) false

10) What will be the output of the program if i = 1 and j = 2?

```
if(++i > j--)  
    i++;  
System.out.println(i + " " + j);
```

- a) $i = 3$ and $j = 1$
- b) $i = 2$ and $j = 1$
- c) $i = 3$ and $j = 2$
- d) $i = 2$ and $j = 1$

11) Given $x = 8, y = 0, z = 1$, what will be displayed by the following statement?

```
if (!(x > 0 && y < 0))
    System.out.println("Yes");
else if (z > 0)
    System.out.println("No");
```

- a) No
- b) Yes
- No
- c) Yes
- d) Nothing

12) What will be the output of the following code?

```
int sum = 12;
int i=5, j=6;
if (i < 7 && j < 6){
    sum += i;
    ++i; j = i + 1;
}
System.out.println(sum--);
```

- a) 17
- b) 11
- c) 12
- d) compilation error

13) What is x after the following switch statement is executed?

```
int x = 3;
switch (x) {
    case 3:
        x = 1;
    case 4:
        x = 2;
        break
    case 2:
        x = 3;
}
System.out.println(x);
```

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

14) What is the output of this code, if any?

```

int number = 3;
if ((number % 2) != 0)
    Number/=2;
else
    Number -= 1;
System.out.print(number) ;

```

- a) 1
- b) 1.5
- c) **Compilation error**
- d) 3

15) What is the output of this code, if any?

```

double var1 = 275 / 100;
double var2 = (275 / 10) % 10;
double var3 = 275 % 10;
System.out.println(var1 + " " + var2 + " " + var3);

```

- a) 2.75 7.5 5.0
- b) 2 7 5
- c) 2.0 7 5.0
- d) **2.0 7.0 5.0**

16) Which of the following three if statements are equivalent?

```

1. if (a == b){
    if (c == d)
        a = 1;
    else b = 1;}
2. if (a == b)
    if (c == d) a = 1;
else b = 1;
3. if (a == b){
    if (c == d)
        a = 1;}
    else b = 1;

```

- a) **1 and 2**
- b) 1 and 3
- c) 2 and 3
- d) None of them are equivalent

17) What will be the output of the following code?

```

for(int i=1; i<=10; i++);
System.out.print(i);

```

- a) 12345678910
- b) 11
- c) **Error**
- d) 1 2 3 4 5 6 7 8 9 10

18) What will be the output of the following code?

```

int i;
for(i=1; i<=10; i++);

```

```
System.out.print(i);
```

- a) 12345678910
- b) 11
- c) Error
- d) 1 2 3 4 5 6 7 8 9 10

19) What will be the output of the following code?

```
int m = 0;
while (m++ < 2)
    System.out.print(m + " ");
```

- a) 0 1 2
- b) 1 2
- c) 2
- d) 1

20) What will be the output of the following code?

```
int n = 0;

int sum = 0;

while( n <= 6 )
{
    sum += n++;
}

System.out.println("sum = " + sum);
```

- a) Sum = 21
- b) Sum = 28
- c) sum = 21
- d) sum = 28

Result

Question No.	Relevant Student Outcome	SO is Covered by %	Full Mark	Student Mark	Assessor's Feedback
1	a	60	6		
2	i	40	4		
Totals		100%	10		
I certify that the work contained within this assignment is all my own work and referenced where required.					Feedback Received: Student Signature: Date: