Premier University

Department of Computer Science and Engineering

Mid Term Examination (September, 2016)

Course Title: Object Oriented Programming Course Code: CSE 211

Time: 40 minutes Full Marks: 20

Q1. What are the requirements of automatic type conversion of Java's primitive data types? 3

Q2. When you will use enhanced for loop in Java? Give an Example. 2.5

Q3. What are the two uses of final keyword in Java? 2

Q4. Correct the following code in Java: 2.5

```
static void fun(int ...a , double k, char ...c)
{
    Statements//
}
```

Q5. Below code is showing compile time error. Can you suggest the corrections? 3.5 4.5

```
class X
{
    public X(int i)
    {
        System.out.println(1);
    }
}

class Y extends X
{
    public Y()
    {
        System.out.println(2);
    }
}
```

Q6. What is the output of the following Java program? 4 5

```
class A
{
    static
    {
        System.out.println("THIRD");
    }
}

class B extends A
{
    static
    {
        System.out.println("SECOND");
    }
}

class C extends B
{
    static
    {
        System.out.println("FIRST");
    }
}

public class MainClass
{
    public static void main(String[] args)
    {
        C c = new C();
    }
}
```

Premier University, Chittagong
Department of Computer Science and Engineering
3rd Semester-Sec(B) Mid Term Exam, March-2017
Course Title: Object Oriented Programming **Course Code:** CSE 211

Total Marks: 20 Time: [redacted] 45. minutes

Q1. What is Bytecode? What are the uses of **static** keyword in Java? 3.5

Q2. Differentiate between method overloading and method overriding in Java. 3.5

Q3. Write down the output of the following code: 4

```
lic class PassA  {
                        public static void main(String [] args)  {
PassA p = new PassA();
p.start();                              }
                        static void start()  {
                             long [ ] a1 = {7,9,12};
                             long [ ] a2 = fix(a1);
System.out.print(a1[0] + a1[1] + a1[2] + " ");
System.out.println(a2[0] + a2[1] + a2[2]);
                                                }
                             long [ ] fix(long [ ] a3)  {
                                        a3[1] = 7;
                                        return a3;     }
                                                }
```

Q4. What is the output of following java program: 3

```
class Test {
  public static void main(String args[])  {
    int x = -4;
    System.out.println(x>>1);
    int y = 4;
    System.out.println(y>>1);
  }
}
```

Q5. What is 'public static void main (String args[ ]) ' signifies? 2

Q6. Why variable length arguments are useful? Give an example of using var-length arguments in a method in Java. 4

Premier University, Chittagong
Department of Computer Science and Engineering
3rd Semester, Mid Term Exam, September-2017
Course Title: Object Oriented Programming Course Code: CSE 211

Total Marks: 20 Time: 1 Hour

Q1. What are the restrictions of static.methods in Java 2

Q2. Give an example of using enhanced for loop in Java. 3

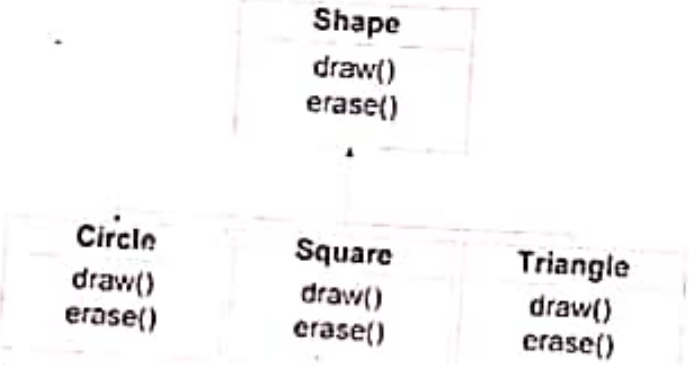
Q3. Write down the output of the following code: 4

```
class Clidder
{
  private final void flipper()
  {
System.out.println("Clidder");
  }
}

public class Clidlet extends Clidder
{
  public final void flipper()
  {
System.out.println("Clidlet");
  }
  public static void main(String[] args)
  {
    new Clidlet().flipper();
  }
}
```

Q4. What is the output of following java program: 3

```
class Derived
{
  publicvoidgetDetails(String temp)
  {
    System.out.println("Derived class "+ temp);
  }
}

publicclassTest extendsDerived
{
  publicintgetDetails(String temp)
  {
    System.out.println("Test class "+ temp);
    return0;
```

Q.5 a. Considering the following illustration and inheritance rules, design the classes. 7



b. Write down the significance of *static* keyword in Java. 3

Q.6 a. Explain the life cycle of a thread with necessary block diagram. 5

b. When is it a must to implement multithreading with the Runnable interface instead of extending the Thread class? Give a simple example of a multithreaded java program using Runnable interface. 2+3

Q.7 a. What is the output generated by the following Java program fragment? 3

```
public static void main(String[] args){
        int A = 10;
        int B = 20;
        update(A, B);
        System.out.println(A+ " " + B);
}
public static void update (int X, int Y)
{
        X = X + Y;
        Y = Y + X;
        System.out.println(X + " " + Y);
}
```

b. What are the purposes of throw and throws clauses? 4

c. Justify the statement - "When you assign one object reference variable to another object reference variable, you are not creating a copy of the object, you are only making a copy of the reference". 3

Premier University
Department of Computer Science & Engineering
3rd Semester Final Examination, June 2018
Course Title: Object Oriented Programming
Course Code: CSE 211

Time: 3 Hours **Total Marks: 50**

Answer any five (5) from following seven (7) questions.

Q.1 a. What is Object-Oriented programing? How are data and functions organized in an Object-Oriented program? 3

b. Write down the differences between
(i) Primitive types and Reference types
(ii) String and StringBuffer classes 4

c. Explain dynamic method dispatch with example.

Q.2 a. What are the uses of 'final' keyword? Explain with examples. 3

b. Suppose there are 7 methods defined as follows: void f1(), void f2(), void f3(), void f4(), void f5(), void f6(), void f7(). 3
There are also 4 interfaces named as: Interface I1, I2, I3 and I4. 5
There is also a class named MyClass that needs to be forced to implement all the 7 methods. But there are some constraints:
(i) Each interface can define at most 2 methods.
(ii) MyClass can only implement 1 interface.
How can you achieve this scenario? You can write code if needed.

c. What is the difference between declaring a variable in a class with protected access modifier rather than no modifier? 2

Q.3 a. What are the two types of nested classes in Java? Briefly describe them. 3

b. What is the role of **garbage collector** in Java? How can an object be unreferenced? 3

c. How to catch an exception in Java? Explain with an example. 4

Q.4 a. Write down the differences between **constructor and method**. Explain **constructor overloading** with an example. 5

b. Explain how interface establishes high level abstraction. 2

c. Consider the following pseudo code: 3

```
A obj = new A();
obj.whatIsMyName("John");
```

Sample output: **Hello dear, John.**

Now **design the class A.**

```
    }
    publicstaticvoidmain(String[] args)
    {
        Test obj = newTest();
        obj.getDetails("GFG");
    }
}
```

Q5. What are the uses of **final** keyword in java? 2

Q6. What are the restrictions of using variable-length argument in a method declaration in Java? 4
Give an example of a method with variable-length argument in Java.

Q7. What do you mean by partial implementation of an interface in Java? 2

Premier University

Department of Computer Science and Engineering

Course Title: Object Oriented Programming Course Code: CSE 211

3rd Semester (Sec-A) Class Test -02

Full Marks: 10 Time: 20 minutes

Q1. Differentiate between method overloading and method overriding in Java. 4

Q2. How to initialize superclass instance variables when creating a subclass object in Java? Give an example. 6

Premier University

Department of Computer Science and Engineering

CSE 3rd Semester (Sec-A) Midterm Examination, November 2018

Course Title: Object Oriented Programming

Course Code: CSE 211

Time: 1-hour **Full Marks: 20**

Answer the following questions:

Q1. Fill in the blanks: 2.5

A Java program is first _____ by Java _____to generate an intermediary code in a file with _____ extension. This file is then _____ by Java _____ to create the output of the program.

Q2. Fill in the blank of the following code segment: 2.5

```
class Promote {
public static void main(String args[]) {
byte b = 42;
char c = 'a';
short s = 1024;
int i = 50000;
float f = 5.67f;
double d = .1234;
_____ result = (f * b) + (i / c) - (d * s);
/*Put the correct data type in the blank space of the above line.*/
System.out.println((f * b) + " + " + (i / c) + " - " + (d * s));
System.out.println("result = " + result);
}
}
```

Q4. Differentiate between method overloading and method overriding in Java. 4.5

Q5. How to initialize superclass instance variables from subclass constructor in Java? Give an example. 6

Q6. Write down the output of the following program:

```
class BitLogic {
public static void main(String args[]) {
String binary[] = {
"0000", "0001", "0010", "0011", "0100", "0101", "0110", "0111",
"1000", "1001", "1010", "1011", "1100", "1101", "1110", "1111"
};
int a = 3; // 0 + 2 + 1 or 0011 in binary
int b = 6; // 4 + 2 + 0 or 0110 in binary
int c =    | b;
int d =  a & b;
int e = a ^ b;
int f = (~a & b)|(a & ~b);
int g = ~a & 0x0f;
System.out.println(" c = " + c);
System.out.println(" d = " + d);
System.out.println(  e = " + e);
System.out.println(" f = " + f);
System.out.println(" g = " + g);
}
}
```

Premier University

Department of Computer Science & Engineering

3rd SEMESTER MID TERM EXAMINATION - JANUARY 2018

Course title: Object Oriented Programming (CSE 211)

Section: B

Mark: 20

Time: 1 hour

Q1

a Write down the **differences between constructor and method**. Explain **constructor overloading** with an **example.** **03+03**

b Write down the significance of ***static*** keyword in Java. **03**

c Consider the following pseudo code: **03**

```
A obj = new A();
obj.whatIsMyName("John");
```

Sample output

Hello dear, John.

Now design the class A.

Q2

a **Consider a Java programmer wrote a program to divide a number with another number. When the program deployed to use a clever user input** like that: **08**

```
Enter a number: 4
Enter other number: 0
```

Sample output

```
Exception in thread "main" java.lang.ArithmeticException: / by
zero
```

Now, **explain what was occurred** while the program executed. If there any problem, **how to solve the problem?**

Premier University, Chittagong
Department of Computer Science and Engineering
3rd Semester, Mid Term Exam, September-2017
Course Title: Object Oriented Programming Course Code: CSE 211

Total Marks: 20 Time: 1 Hour

Q1. What are the restrictions of static-methods in Java 2

Q2. Give an example of using enhanced for loop in Java. 3

Q3. Write down the output of the following code: 4

```
class Clidder
{
   private final void flipper()
   {
System.out.println("Clidder");
   }
}

public class Clidlet extends Clidder
{
   public final void flipper()
   {
System.out.println("Clidlet");
   }
   public static void main(String[] args)
   {
      new Clidlet().flipper();
   }
}
```

Q4. What is the output of following java program: 3

```
class Derived
{
   publicvoidgetDetails(String temp)
   {
      System.out.println("Derived class "+ temp);
   }
}

publicclassTest extendsDerived
{
   publicintgetDetails(String temp)
   {
      System.out.println("Test class "+ temp);
      return0;
```

```
        System.out.println("b = " + b);
        System.out.println("c = " + c);
    }
}
```

Q3. (a) Give an example of for-each style **for loop** in Java. 2

(b) Why static nested classes are not used very often in Java? 2

(c) Why the following code is showing compilation error? Correct the code so that it can be compiled. 3

```
class Outer {
    int outer_x = 100;

    void test() {
        Inner inner = new Inner();
        inner.display();
    }

    class Inner {
        int y = 10;

        void display()
        {
            System.out.println("display: outer_x = " + outer_x);
        }
    }

    void show() {
        System.out.println(y);
    }
}

class InnerClassDemo {
    public static void main(String args[])
    {
        Outer outer = new Outer();
        outer.test();
    }
}
```

(d) How to access the command line argume us inside a Java Program? Give an example. 3

Q4. (a) How Java simplifies the creation of meth ds that need to take a variable number of arguments? Give a short note on this with example. 3

(b) What restriction applies to a normal class when it needs to extend an abstract class? 1

(c) Super keyword has two general forms in Java. What are those two forms? Give an example of one of this form 1

```
    }
    publicstaticvoidmain(String[] args)
    {
        Test obj = newTest();
        obj.getDetails("GFG");
    }
}
```

Q5. What are the uses of **final** keyword in java? 2

Q6. What are the restrictions of using variable-length argument in a method declaration in Java? 4
Give an example of a method with variable-length argument in Java

Q7. What do you mean by partial implementation of an interface in Java? 2

(b) Why Swing components are known as lightweight components?

(c) How AWT event handling is performed? Give an example.

(d) A panel has been created with following code:
Panel pnl = new Panel(new FlowLayout());
If some components are added in the panel, how will they be arranged in this layout?