

# International Islamic University Chittagong (IIUC)

## Department of Electronic and Telecommunications Engineering

### Final Examination

Program: B.Sc. (Engg.)  
Course Code: ETE-3525

Semester: Spring -2018  
Course Title: Object Oriented  
Programming with Java  
Time: 2 hours 30 minutes

Full Marks: 50

#### Group- A

[Answer *any two* sets of the following questions]

1. (a) Inheritance means to have a privilege, because your parent had- but what does inheritance mean in Java? And how it is implemented? Illustrate with an example. 1+2
- (b) Classify inheritance in Java. 2
- (c) Discuss Multiple inheritance in Java. "You may have been known that implementing multiple inheritance is not possible using only class in Java"- How this obstacle can be solved? Illustrate with an example 2+3
  
2. (a) Which exception will the program produce if you run this on a Java compiler? 02  

```
public class java_ete {  
    public static void main (String args[]) {  
        int num[] = {1, 2, 3, 4};  
        System.out.println(num[5]);  
    }  
}
```
- (b) Assume that you typed a java program, and you know that it may produce runtime error, but you do not know what type of run time error the program may produce- Discuss with an example how will catch the exception. 04
- (c) Again, assume that you typed a java program, and you know that it may produce any of three runtime errors, but you do not know which of those three run time errors the program may produce- Discuss with an example how will you handle the situation. (Hints: Multiple catch block) 04
  
3. (a) "If you have a method whose name is the same to its class"- what is the name of this type of method? – use an example to discuss in detail 04
- (b) "If you have more than one method whose name are same, but parameters' data types are different"- how will handle this type of method? Leave a proper example 04
- (c) Write down some examples of java run time errors. 02

#### Group- B

[Answer *any three* sets of the following questions]

4. (a) A thread means a line of execution in Java-explain 02
- (b) You may have been heard that an active thread may be in running state or in runnable state- what are the differences between these two states of a thread? 03
- (c) How will you create, suspend, sleep, wait, stop a thread? Illustrate with a proper example 05
  
5. (a) Define system package in Java. What type of classes are contained in the following packages 02

- java.util
  - java.io
- (b) Enlist the characteristics of java Interface. Also differentiate Interface and class 1+2
- (c) How an interface is defined, implemented and used in Java? (Illustrate with an example) 05
6. (a) Write down the name of at least one method which is present in the both of Input stream and Output stream. 01
- (b) Write short note: 04
- Random Access File
  - Reader Stream classes
- (c) Compose a java program which will append contents in an existing file 05
7. (a) "In every program there is a default thread which is called main thread"- explain 02
- (b) "Though it is said that multiple thread is run simultaneously. Actually, it is not true"- What is the true fact? 03
- (c) "An Interface can only have abstract class"- Explain with example 03
- (d) Explain default package in Java. 02