

University of Sargodha

BS 2nd Term Examination 2015

Subject: I. T

Paper: Object Oriented Programming (CMP-2123)

Time Allowed: 2:30 Hours

Maximum Marks: 60

Objective Part

Compulsory

Q.No.1: Attempt all parts and each require answer 2 – 3 lines

(12*2=24)

- (i) What is an instance?
- (ii) Explain the importance of information hiding in OOP?
- (iii) Differentiate between Abstract and concrete class?
- (iv) What is the Difference between JDK and JRE?
- (v) What is Inner class?
- (vi) What is the difference between String and StringBuilder class?
- (vii) What is the purpose of "super" keyword?
- (viii) Explain garbage collection in Java?
- (ix) Differentiate between checked and unchecked Exceptions?
- (x) What is package?
- (xi) What is "this" keyword in java?
- (xii) Why main () method is static?

Subjective Part

Note: Attempt four out of six questions.

(4*9=36)

- Q.No.2 Create a class **Student** with instance variable rollno, name, age and decide proper data types and access modifiers for these variables. Define overloaded constructors, getter/setter methods and also override toString() method. Demonstrate this class in your program.
- Q.No.3 What is polymorphism? Describe its concept by a suitable program.
- Q.No.4 Explain **exception handling** in java and why we use nested try blocks. Write a program to demonstrate exception handling by nested try/catch blocks.
- Q.No.5 Create a Date class. Use this class in your program to store date objects into a binary file. Demonstrate in main method by storing three Date objects.
- Q.No.6 Write a java program using **swing package** to create a simple four function arithmetic calculator. Select layout of your own choice.
- Q.No.7 Explain the advantage of using **interfaces** in java? How they are different from **abstract classes**. Support your answer with an example of java code.