



Uva Wellassa University, Sri Lanka
Faculty of Science and Technology
2nd Semester Examination August / September 2011
CST 308 – 3 Rapid Application Development

This is an open book examination.

Time Duration : Three (03) hours
Number of Questions : Two (02)
Number of Pages : Two (02)

Instructions to Candidates:

Answer all questions.

Create two Java projects named **Question1** and **Question2** for Q1 and Q2 respectively.

Create a single compressed file including both src folders of Question1 and Question2 and upload to the CMS. The name of the compressed file should be same as your examination number (e.g. EX08001.zip)

Q1)

- a) Create a Java package by including abstract Class Shape, Class Circle and Class Square. Methods of each Class are listed in the table given below.

Class name	methods
Shape (abstract)	area(radius or length) main(command line arguments)
Circle	area(radius) circumstance(radius)
Square	area(lengthOfSide) diagonalLength(lengthOfSide)

(15 marks)

- b) Create a build.xml file.

Your build.xml file should capable of doing the followings.

Compiling java source codes to binary codes,

Creating a jar file,

Copying a jar file into dist folder and lib folder (consider dist and lib folders are located on your workspace).

(20 marks)

- c) Your jar file should be able to run by using an **ant** tool.
Parameters such as radius of a circle or length of a square and shape of the object should be able to pass as command line arguments.

Sample output of your program should be as follows.

.....
You have selected a Circle with the Radius 4.

.....
Area of the Circle is 50.286

Circumstance of the Circle is 25.143
.....

(15 marks)

Q2)

- a) Student registration system should have **five fields** in the main interface namely User Id, Password, E-mail, Residential Address, and Phone Number.
To register in to your system user has to enter at least two required details into the main interface. Main interface should be as follows.

Please enter the following details

<i>User Id (*)</i>	<input type="text"/>
<i>Password (*)</i>	<input type="text"/>
<i>E-mail</i>	<input type="text"/>
<i>Residential Address</i>	<input type="text"/>
<i>Phone Number</i>	<input type="text"/>

(20 marks)

- b) When user clicks on the Save button data should be saved into the database.

Refer the following information in-order to create your tables using Hibernate annotations.

Take the Schema name as **STUDENTADATA**.

Table name should be **StudentDetails**.

E-mail, Residential Address and Phone Number should go to another table named **StudentInfo**.

Take User Id as Primary key and it should auto increment.

(30 marks)