



DHARMSINH DESAI UNIVERSITY, NADIAD
FACULTY OF TECHNOLOGY
B.TECH – SEMESTER – VII, IT
SUBJECT: (IT 713) ADVANCE JAVA TECHNOLOGY

Examination : First Sessional
Date : 30/07/2014
Time :

Seat No. :
Day : Wednesday
Max. Marks : 36

INSTRUCTIONS:

1. Figures to the right indicate maximum marks for that question.
 2. The symbols used carry their usual meanings.
 3. Assume suitable data, if required & mention them clearly.
 4. Draw neat sketches wherever necessary.
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Q.1 Do as directed.

- (a) What is Servlet technology? Which environment is needed to run a Servlet? [2]
- (b) To execute stored procedure “total stock” in database server, write the code snippet of it? [2]
- (c) What is callback RMI? What is its main use? [2]
- (d) Discuss in brief about Distributed Garbage Collection in RMI? [2]
- (e) Write a java code to retrieve auto generated keys column from database. [2]
- (f) What are the benefits of connection pooling? [2]

Q.2 Attempt Any Two from the following questions.

- (a) Explain the use of Prepared Statement with suitable example. [6]
- (b) Consider Student table with attributes stdID, stdName, stdSemester, stdPhone and stdAddress. Write a database application which allows insertion, updation and deletion of records in Student table. Print values of all students whose stdPhone field is empty. [6]
- (c) i. What is JDBC driver? List the types of drivers and explain working of type-3 driver. [6]
ii. What is Metadata? Explain ResultSetMetaData and DatabaseMetaData.

Q.3 Attempt ALL from the following questions.

- (a) Explain all the steps along with use of tools/commands for servlet based web-application development and deployment. [4]
- (b) Create RMI based client server application. The server provides facility of performing withdraw and deposit on client's account object from remote client. The server registers its service with the name *MyBankService* in RMI registry. For implementing accounts of customers, data structure such as array may be used. [8]

OR

Q.3 Attempt ALL from the following questions.

- (a) Using suitable diagram, explain downloading of RMI stub at run time. [4]
- (b) Draw layered architectural diagram showing working of RMI and also discuss the responsibilities of stub/skeleton layer and remote reference layer in RMI. [4]
- (c) Draw and discuss life-cycle of Servlet. Also discuss use of each callback method. [4]