

**M. SC. (COMPUTER SCIENCE) SEM – II (CHOICE BASED
CREDIT & GRADE SYSTEM) : WINTER - 2017**

SUBJECT : JAVA APPLICATION PROGRAMMING

Day : Friday
Date : 27/10/2017

Time : 03.00 PM TO 06.00 PM
Max. Marks : 60

W-2017-0824

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labeled diagram **WHEREVER** necessary.

Q.1 Write the steps to create a JDBC Applications. Write a program to display details from Student table (Student Id, First Name, Last Name, Phone). [15]

OR

List two classes and two interfaces present in java.net package. Write a program to calculate factorial of a number using Network Programming.

Q.2 A) Answer **ANY ONE** of the following: [08]

- i) Differentiate between Statement and Prepared Statement.
- ii) Describe Life Cycle of servlet using a diagram.

B) Answer **ANY ONE** of the following: [07]

- i) Write a RMI program to multiply two numbers.
- ii) Write a JSP program to accept principal amount, rate of interest and number of years and calculate Simple Interest.

Q.3 Answer **ANY THREE** of the following: [15]

- a) Explain MVC Architecture with an example.
- b) List 4 JSP Implicit objects. Explain session tracking using cookies in servlet.
- c) Write a program to create a servlet that takes input as student Id, Name and Color and prints the same.
- d) Explain connection pooling with an example.
- e) Explain RMI Architecture with a diagram.

Q.4 Write short notes on **ANY THREE** of the following: [15]

- a) JDBC Driver Types
- b) Types of beans in EJB
- c) JSP Scripting Elements
- d) Stub and Skeleton in RMI
- e) UDP and TCP

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