

Roll No

MCA-405(B)

MCA. IV Semester

Examination, December 2016

Java Programming and Technologies

(Elective - I)

Time : Three Hours

Maximum Marks : 70

- Note:** i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.
ii) All parts of each question are to be attempted at one place.
iii) All questions carry equal marks, out of which part A and B (Max. 50 words) carry 2 marks, part C (Max. 100 words) carry 3 marks, part D (Max. 400 words) carry 7 marks.
iv) Except numericals, Derivation, Design and Drawing etc.

1. a) Write down the basic construct of a Java program.
b) Discuss memory allocation and garbage collection in Java.
c) Write the concept of CLASSPATH in Java.
d) Write suitable program code to show the importance of "this" and "super" keywords in a Java program.

OR

What do you mean by dynamic method dispatch in Java?
Give suitable example to explain your answer.

2. a) Define an interface in Java and implement it.
b) Write the "Synchronized" statement in Interthread Communication using a Java program.
c) Write the life cycle of a thread in Java.
d) What is Multithreading? How is it implemented in Java? Given code.

OR

Write a program to show "try", "catch" and "finally" blocks in exception handling using Java program.

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P.T.O.

3. a) Describe the importance of Adapter Classes in Java Applets.
b) How you will copy the contents of one file to another using Java file handling concept? Write suitable program to explain your answer.
c) Describe in brief the AWT classes.
d) Explain the life cycle of an applet. What are advantages and disadvantages of using applet programs?

OR

Give Java codes as examples of Layout managers.

4. a) Discuss serialization with suitable code.
b) Discuss in brief Buffered reader and Buffered writer.
c) Describe the steps to use Java.sql giving code.
d) Discuss the JDBC ODBC bridge giving suitable code.

OR

Write down the steps of using JDBC. Write code in support of your answer.

5. a) Write the steps to create a simple Java servlet program, its execution, and deployment on the web server.
b) Describe the concept of "Session tracking" through servlet program.
c) Write a program which implements a very simple network communication client and server. Messages are typed into the window at the server and written across the network to the client side, where they are displayed.
d) Explain with servlet program the concepts of "HTTP GET Requests" and "HTTP POST Request".

OR

Describe in brief

- i) TCP/UDP sockets
ii) Steps of creating RMI Applications.

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