MCA
(SEM III) THEORY EXAMINATION 2016-17
INTERNET & JAVA PROGRAMMING

[Time: 3 hrs.]   [Max. Marks: 100]

Note- Attempt All Questions. All Questions carry equal marks:-

1. **Attempt any four questions.**   [4x5=20]
   a) Briefly describe the Impact of the Internet on Society: A Global Perspective.
   b) Explain the layers of TCP/IP suite.
   c) Write a short note on Internet Services.
   d) Write short notes on the following:
      1. Video conferencing
      2. Choosing an ISP
   e) Explain the E-mail concept with proper example.
   f) Define the IPv4 and IPv6 protocol.

2. **Attempt any four questions.**   [4x5=20]
   a) Write a short note on the characteristics of Java language.
   b) What are Interface and package? Write a program in java to implement the Interface.
   c) Define constructor. Write a program in Java of constructor overloading.
   d) Define the throw, throws keyword in Java. Write a program in Java of Exception Handling using try-catch block.
   e) Draw the life cycle of thread. What is the difference between thread and process? Write various purpose of Multithreading in programming language?
   f) Briefly describe the Java networking terminologies. Write all the methods of Socket and Server Socket class.

3. **Attempt any two questions.**   [2x10=20]
   a) Write a short note on Swing. What is the difference between Swing and AWT. Write a program in Java Swing of displaying the image on button.
   b) What is JDBC? Describe all the JDBC Drivers. How to connect to the database in Java?
   c) Write short notes on the following:
      1. Border Layout
      2. Grid Layout.
      3. Flow Layout
      4. Box Layout.

4. **Attempt any two questions.**   [2x10=20]
   a) Explain the RMI. What is the difference between EJB and RMI?

b) What is EJB? What are the differences between stateful session bean and stateless session bean?

c) Define Java Bean. Why use Java Bean. Write a simple example of Java Bean Class.

5. Attempt any two questions. [2x10=20]

a) What is Servlet? Explain the Servlet API.

b) Define Cookies. Write a short note on HttpServlet class.

c) What is JSP? Draw the life cycle of JSP. What are the advantages of using JSP over Servlet?