

**FACULTY OF INFORMATICS**  
**B.E. 4/4 (IT) I – Semester (Supplementary) Examination, May 2013**  
**Subject : Middleware Technologies**

Time : 3 hours

Max. Marks : 75

**Note: Answer all questions from Part–A. Answer any FIVE questions from Part–B.**

**PART – A (25 Marks)**

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|-----|--|---|
| 1.  | What is a Web service?                                   | 2 |
| 2.  | What is SOAP?  | 2 |
| 3.  | How do you call one servlet from another?                | 3 |
| 4.  | Explain best ways of overriding init()?                  | 3 |
| 5.  | How to load a JDBC driver?                               | 2 |
| 6.  | What are the differences between EJB3.0 and EJB2.1?      | 3 |
| 7.  | What is the Microsoft Intermediate Language (MSIL)?      | 2 |
| 8.  | Write short notes on RPC.                                | 3 |
| 9.  | What is the purpose of IDL?                              | 3 |
| 10. | Differentiate between web server and application server. | 2 |

**PART – B (50 Marks)**

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|-------|---|----|
| 11.a) | What is SOA? What are its main benefits?  | 5  |
| b)    | Differentiate between general middleware services and MOMs.   | 5  |
| 12.   | Write a servlet application to handle the following form controls<br>i) Text box      ii) Check box      iii) Radio button      iv) Combo box | 10 |
| 13.a) | Compare and contrast between stateless session bean and stateful session bean.  | 5  |
| b)    | Explain the life cycle of entity bean.  | 5  |
| 14.   | Explain the following w.r.t. CORBA Architecture.<br>i) ORB      ii) Static Invocation      iii) Dynamic Invocation      iv) IIOP              | 10 |
| 15.a) | Explain the overview of .NET architecture.  | 8  |
| b)    | What does "Managed" mean in .NET context?   | 2  |
| 16.a) | Write the comparisons between COM and CORBA.  | 5  |
| b)    | Explain the important features of .NET.   | 5  |
| 17.a) | Explain the flow of STRUTS framework.   | 5  |
| b)    | Explain the state management techniques in servlets.  | 5  |