

FACULTY OF INFORMATICS

B.E. 4/4 (IT) I – Semester (Main) Examination, Dec. 2014 / Jan. 2015

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 | Differentiate between MOM and RPC. | 3 |
| 2 | How does the client find its server in RPC? | 2 |
| 3 | What are the key features of the EJB technology? | 3 |
| 4 | What is validation Framework? | 2 |
| 5 | What is the meaning of <i>in</i> , <i>out</i> and <i>inout</i> specified before the parameter name in CORBA methods? | 3 |
| 6 | Why are language mapping a necessary part of CORBA? | 2 |
| 7 | Write sample code to create a Session Object and invalidate existing session. | 3 |
| 8 | Write steps to establish connection with JDBC. | 2 |
| 9 | Briefly explain what is IL code. | 3 |
| 10 | What is assembly in .NET framework? | 2 |

PART – B (50 Marks)

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| 11 | a) Explain the servlets API in detail. | 5 |
| | b) Explain the session API with an example program. | 5 |
| 12 | a) What is struts Framework? Explain the flow of execution of a struts application. | 6 |
| | b) Write a servlet program for login validation. | 4 |
| 13 | a) Explain the architecture of MOM. How is it different from other types of middleware? | 5 |
| | b) What are the similarities and differences between RMI and CORBA? | 5 |
| 14 | a) List and explain any five CORBA alternatives. | 5 |
| | b) Why CORBA objects need to be reference counted? | 2 |
| | c) What are the advantages of DII over static invocation in CORBA? | 3 |
| 15 | a) Explain the architecture of EJB 3. How EJB 3 is light weight compared to EJB 2.1? | 6 |
| | b) What is the difference between web server and application server? | 4 |
| 16 | Draw the architecture of .NET and how does CLR execute the .NET source code? Explain the steps involved in it. | 10 |
| 17 | Write short notes on the following : | |
| | a) Web services | 3 |
| | b) Cookies | 4 |
| | c) .NET base class libraries | 3 |
