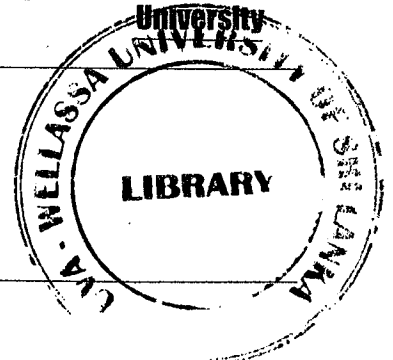


Uva Wellassa University of Sri Lanka
Faculty of Science and Technology
Department of Computer Science and Technology
300 level 2nd Semester Examination – Sept. / Oct. 2015
CST 324-2 Middleware Architecture



**Uva Wellassa
University**



Instructions to candidates

Duration: 02 hours

Number of questions: Four (04)

Answer all questions

Mark allocation: 100

1.
 - a. Explain the difference between centralized and distributed computing. (8 mark)
 - b. List three (03) benefits of using a distributed system. (3 mark)
 - c. Illustrate the components of a distributed software system using a diagram. (6 mark)
 - d. Briefly explain four (04) challenges in distributed systems. (8 mark)

2.
 - a. Explain the term "legacy application". (4 mark)
 - b. What are the drawbacks of legacy applications? (6 mark)
 - c. How do different components communicate in component-based architecture? (8 mark)
 - d. What is the usage of a proxy in a Client-Server communication? (7 mark)

3.
 - a. Explain the term "middleware". (4 mark)
 - b. Briefly explain four (04) benefits of middleware. (8 mark)
 - c. Explain the difference between LPC (Local Procedure Call) and RPC (Remote Procedure Call). (8 mark)
 - d. What is "parameter marshalling and unmarshalling"? (5 mark)

4.
 - a. What is RMI (Remote Method Invocation)? (3 mark)
 - b. Explain the difference between RPC and RMI. (8 mark)
 - c. Briefly explain three (03) requirements of networked application. (6 mark)
 - d. Explain the term "Common Object Request Broker Architecture (CORBA)". (8 mark)