

Code : 1P2B54

ANNAMACHARYA INSTITUTE OF TECHNOLOGY & SCIENCES :: RAJAMPET
(AUTONOMOUS)

MCA V Semester Regular Examinations, December 2013

Software Architecture

Time: 3 hours

Max Marks: 60

*Answer any FIVE of the following
All questions carry equal marks (12 Marks each)*

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1. a) What activities are involved in creating Software Architecture in detail? 6M
b) List all process recommendations to make a Good Architecture. 6M
2. Explain the architecture styles based on 12M
 - i. Data Abstraction and Object – Oriented Organization.
 - ii. Event – Based implicit invocation.
3. Explain the different Variants on the two Architectural forms Dataflow Systems and Repositories. 12M
4. a) List all the initial set of original requirements for the Web. 6M
b) Describe how the web achieves its initial Quality goals. 6M
5. With neat diagrams, depict the dynamic behavior of Pipes and Filters Pattern 12M
6. a) Explain how to formalize an Architectural style. 6M
b) Explain the value of Architectural formalism 6M
7. a) Write the applications of ADL's in System Development. 6M
b) What are attributes to evaluate ADL's? Explain. 6M
8. Write short notes on Software Product Line and Explain what makes Software Product Lines work. 12M

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MCA V Semester Regular Examinations, December 2013

UML and Design Patterns

Time: 3 hours

Max Marks: 60

*Answer any FIVE of the following
All questions carry equal marks (12 Marks each)*

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|----|---|-----|
| 1. | a) Discuss about Packages | 6M |
| | b) Discuss about Object Diagrams | 6M |
| 2. | a) Write short notes on Use Case Diagrams | 6M |
| | b) Explain about Collaboration Diagrams | 6M |
| 3. | a) What is State and Transition? Discuss | 6M |
| | b) Discuss about Processes and Threads | 6M |
| 4. | a) Discuss about Components and Interfaces | 6M |
| | b) Discuss the role of Deployment Diagrams in OOAD | 6M |
| 5. | Discuss in detail the way Design Patterns solve Design Problems | 12M |
| 6. | Explain the following | |
| | a) Structure of Abstract Factory | 6M |
| | b) Motivation for Builder | 6M |
| 7. | a) Discuss the Motivation and Application of Composite Pattern | 6M |
| | b) Discuss about Interpreter Pattern in detail | 6M |
| 8. | Write short notes on | |
| | a) Observer Pattern | 6M |
| | b) Template Method | 6M |

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**ANNAMACHARYA INSTITUTE OF TECHNOLOGY & SCIENCES :: RAJAMPET
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MCA V Semester Regular Examinations, December 2013

.Net Technologies

Time: 3 hours

Max Marks: 60

*Answer any FIVE of the following
All questions carry equal marks (12 Marks each)*

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|---|----|
| 1. a) Explain .NET Frame work in detail | 6M |
| b) Discuss Assemblies & Manifest | 6M |
| 2. a) Explain about C# core language features | 6M |
| b) Discuss MSIL Programming | 6M |
| 3. a) What are various Visual basic .NET modules? | 6M |
| b) Discuss Object Serialization | 6M |
| 4. a) Discuss the architecture of ADO.NET | 6M |
| b) Explain the concept: Data Adapter | 6M |
| 5. a) Explain ASP.NET session | 6M |
| b) Discuss about Cookies | 6M |
| 6. a) Explain about XML DOM object model | 6M |
| b) Discuss briefly Data validation | 6M |
| 7. a) What are web services protocols & standards | 6M |
| b) Write the steps involved in writing a simple web service | 6M |
| 8. a) Explain Emulators. | 6M |
| b) Discuss the concept Lists | 6M |

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ANNAMACHARYA INSTITUTE OF TECHNOLOGY & SCIENCES :: RAJAMPET
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MCA V Semester Regular Examinations, December 2013

Cloud Computing

Time: 3 hours

Max Marks: 60

*Answer any FIVE of the following
All questions carry equal marks (12 Marks each)*

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- 1. a) List the services of cloud computing. Explain about the Network as a service and Communication as a service models. 8M
- b) Differentiate public and private cloud types over a network. 4M
- 2. a) Draw and explain the cloud architecture which provides service “platform as a service” in which clients does not have to allocate hardware and software resources manually. 8M
- b) State and Explain the cloud feature “Multitenancy” in detail. 4M
- 3. What are the cloud management challenges need to handle when cloud based applications are deploying as open source in the public environment. Explain each challenge with the solution. 12M
- 4. a) Write a procedure for cloud based collaboration of group projects for multinational companies. 6M
- b) How the centralized email communication system is collaborated by cloud computing. 6M
- 5. a) Explain the cloud collaboration on online scheduling and planning for the task management. 6M
- b) Write about cloud collaboration on word processing and spreadsheets. 6M
- 6. How to evaluate various web services provided by the cloud like emails, chatting, video conferences etc. 12M
- 7. Create cloud application which establishes the instant communication among the people through blogs or wikis. 12M
- 8. Explore the following applications by using IaaS provided by cloud. 12M
 - a. on line photo editing applications
 - b. on line book marking services by using

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**ANNAMACHARYA INSTITUTE OF TECHNOLOGY & SCIENCES :: RAJAMPET
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MCA V Semester Regular Examinations, December 2013

Middle ware Technologies

Time: 3 hours

Max Marks: 60

*Answer any FIVE of the following
All questions carry equal marks (12 Marks each)*

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| 1. a) | With a neat diagram describe the various building blocks of client-server architecture in detail. | 8M |
| b) | Classify the clients based on UI. | 4M |
| 2. a) | List and describe the problems in the traditional web applications. | 6M |
| b) | What are the services provided by browser to applets? Explain. | 6M |
| 3. a) | Explain how RMI works. | 8M |
| b) | Write short notes on the Object Web. | 4M |
| 4. | Write notes on the following: | 12M |
| i. | CGI | |
| ii. | HTML forms | |
| iii. | Java ORB | |
| 5. a) | Make a comparison of static and dynamic client and server invocations. | 6M |
| b) | Give a note on ORBlets with applets. | 6M |
| 6. a) | Explain CORBA initialization protocol in detail. | 6M |
| b) | Discuss the structure of CORBA IDL. | 6M |
| 7. a) | Explain event delegation model for JAVA Beans. | 6M |
| b) | Write notes on introspection of Java Beans. | 6M |
| 8. a) | Describe the services provided by EJB container. | 6M |
| b) | Explain how Enterprise JAVA Beans are related to CORBA OTM's. | 6M |

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ANNAMACHARYA INSTITUTE OF TECHNOLOGY & SCIENCES :: RAJAMPET
(AUTONOMOUS)*MCA V Semester Regular Examinations, December 2013****Simulation and Modeling*****Time: 3 hours****Max Marks: 60**

*Answer any FIVE of the following
All questions carry equal marks (12 Marks each)*

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1. a) What is meant by System Modeling? What are its advantages and disadvantages? 6M
b) Describe the types of System Study. 6M
2. a) Define System Simulation? Explain the need and limitations of it. 6M
b) Explain about Distributed log models and Cobweb models. 6M
3. a) Describe the role of Analog computers and Hybrid computers in the Continuous system models. 6M
b) Briefly explain about CSSLs and CSMP III. 6M
4. a) Describe about Monte-Carlo Techniques. 6M
b) The Birth rate of a country is adding 100,000 people a year to an initial population of 5,000,000. The average life expectancy is 65 years. It is estimated that one ton of coal is consumed per annum for each individual. Draw a diagram showing how the country resources of 500,000,000 tons are being depleted. 6M
5. Explain the following:
a) Congestion in Systems. 4M
b) Importance of Queuing and Measures of queues. 4M
c) Service Times. 4M
6. Describe in detail about Simulation of Telephone system. 12M
7. Write a GPSS program for simulation of a Super Market and also define various blocks used. 12M
8. a) What are Simultaneous and Conditional events? Explain. 6M
b) Explain the execution of Simulation algorithm in GPSS. 6M
