KADI SARVA VISHWAVIDYALAYA

B.E SEMESTER VI (REG) EXAMINATION (MAY - 2015)
DEPARTMENT: COMMPUTER ENGINEERING
SUBJECT CODE: CE 606-1
SUBJECT NAME: DISTRIBUTED SYSTEMS (ELECTIVE-II)

DATE: 8/5/2015   TIME: 10:30 to 1:30   **TOTAL MARKS**: 70

INSTRUCTIONS:

1. Answer each section in separate Answer sheet.
2. Use of Scientific Calculator is permitted.
3. All questions are compulsory.
4. Indicate **clearly,** the option you attempted along with its respective question number.
5. Use last page of main supplementary for rough work.

SECTION – 1

Q:1   **All compulsory.**

(A) Discuss briefly the various issues related to distributed system design. (Any Five)   **05**

(B) What is a distributed System? What are the advantages of it?   **05**

(C) Compare the distributed computing models.   **05**

OR

(C) Differentiate monolithic kernel model and micro kernel model.   **05**

Q:2   **Answer the following Questions.**

(A) Why traditional network protocols are not suitable for distributed systems? Explain VMTP protocol used for distributed system.   **05**

(B) What is ordered message delivery? Discus different types of message ordering.   **05**

OR

(A) Why network system protocols are unsuitable for Distributed Systems? Explain any one communication protocol for Distributed System.   **05**

(B) Explain how logical clocks are implemented in a distributed system.   **05**

Q:3   **Answer the following Questions.**

(A) Draw and explain RPC architecture.   **05**

(B) What is a deadlock? List the four necessary and sufficient conditions for a deadlock to occur.   **05**

OR

(A) Explain Java RMI. What are the components and processes of Java RMI execution?   **05**

(B) Discuss and compare various election algorithms.   **05**

[P.T.O]

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Q:4   **All compulsory.**

    (A)   What is Load Balancing? Explain any one algorithm of load balancing.   05

    (B)   List various consistency models used in DSM? Explain any one.   05

    (C)   What are threads? Enumerate the major differences between threads and processes.   05

OR

    (C)   What is process migration? List the steps in process migration. Explain any one in detail.   05

Q:5   **Answer the following Questions.**

    (A)   What are various types of Hardware DSM? Explain them.   05

    (B)   Explain distributed file models.   05

OR

    (A)   Discuss the issues in designing load-sharing algorithms.   05

    (B)   What is thrashing? What are various methods to solve thrashing?   05

Q:6   **Answer the following Questions.**

    (A)   Discuss various replica creation techniques.   05

    (B)   What is grid computing? Explain how grid computing works.   05

OR

    (A)   List the major function of Distributed File System.   05

    (B)   What is cloud computing? Explain futures of cloud computing.   05

--- **ALL THE BEST**---

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KADI SARVA VISHWAVIDYALAYA

BE SEMESTER - VI Regular Examination APRIL/MAY-2015

Subject Code: CE 605-2 / IT 605-2

Subject Name: Advance .Net Technology

Date: 06/05/2015   Time: 10:30 to 01:30   **Total Marks: 70**

Instructions:
1. Answer each section in separate answer sheet.
2. Use of scientific calculator is permitted.
3. All questions are Compulsory.
4. Indicate clearly, the option you attempt along with its respective question number.
5. Use the last page of main supplementary of rough work.

Section-I

Q-1 **(A)** **Select the Correct Answer**   [5]

(1) Which of the following is not part of CLR?
- a. Class Loader
- b. Garbage Collector
- c. .Net Framework
- d. JIT Compiler

(2) Which of the following is not an advantage of .NET Framework?
- a. Language Interoperatibility
- b. Manual Management of Resources
- c. Cross-platform support
- d. Consistent Programming Model

(3) Which of the following property represents a Dataset?
- a. DataMember
- b. DataSource
- c. DisplayMember
- d. ValueMember

(4) Which parameter is used to specify that SessionID should not be stored in cookie?
- a. timeout
- b. Cookieless
- c. SessionState
- d. mode

(5) Which is the correct syntax for declaring Web services?
- a. [WebMethods]
- b. (WebMethod)
- c. [WebMethod]
- d. {WebMethods}

(B) Explain the terms : CLR, MSIL, GAC, Namespace, Assembly Manifest   [5]

(C) Differentiate between following terms regarding .Net framework   [5]
- Managed and Unmanaged Code
- ADO and ADO .Net

OR

(C) Differentiate between following terms regarding .Net framework   [5]
- Array and Array List
- Indexer and properties

Q-2 **(A)** Explain the use of StreamReader and StreamWriter class for FileStream with [5] suitable example.

(B) What is Delegate? Demonstrate it by creating console application to perform [5] arithmetic operations.

OR

(A) What is Destructor? Give the name of two techniques of Destructor and explain [5] both by creating suitable application in C#

(B) What is Inheritance? Create VB.Net console application to define shape class and [5] derive circle and rectangle from it to demonstrate inheritance

Q-3 **(A)** Differentiate between structured and Unstructured exception handling? Create [5] VB.Net console application to demonstrate Unstructured exception handling

(B) Explain objects of ADO .Net: SqlConnection, SqlCommand, SqlDataAdapter by [5] creating application to perform select, Insert, delete, update operation with SQL Server Database

OR

(A) What is method overloading and overriding? Create VB.Net console application to [5] demonstrate both concepts

(B) Define Unsafe code in C#. How pointers are declared in C#? Explain with example [5]

Section-II

Q-4 **(A)** What is the use and extension of following: [5]
    1. ASP.Net page   2. Master Page   3.Skin File   4.Web Service File
    5. WPF application page 6. Web User Control 7. ASP.Net Code Behind with C#
    8. Cascading Style sheet   9.Web configuration file   10. SQL Server Database file

(B) Write a web application to demonstrate use of session and cookie with proper [5] example

(C) Explain Master page in Web Base and Window base Application. Write steps to [5] create and use for child page for both types of application

OR

(C) Explain and demonstrate Repeater control by writing suitable code in HTML or [5] code behind to display list of products with code and price

Q-5 **(A)** Define Web Service in .NET. How to create and consume the web service in .NET? [5]

(B) Which are the types of event for ASP.NET page? Explain the Page execution in [5] ASP.NET with main events executed when page is requested

OR

(A) Explain use of WCF in .Net framework with its basic three components. Create and [5] consume WCF service by Web application

(B) What is validation in web development? List the different input validation controls. [5] Create a web application to demonstrate any three validation controls

Q-6 **(A)** What is AJAX and how can we use AJAX controls in ASP .Net? Give ASP.Net [5] code to use AJAX GridView control in web application

(B) Explain Internal and external Cascading Style Sheet (CSS) and write code to wrap it [5] with student registration detail web page

OR

(A) What is WF and use of it in .Net framework? Write an application to print student [5] result PASS or FAIL if marks for subject .net is <40 or >=40 respectively

(B) What is GDI+? Develop windows application to demonstrate it [5]

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KADI SARVA VISHWAVIDHYALAYA

B.E. SEMESTER-VI EXAMINATION (NOVEMBER - 2015)

SUBJECT CODE: CE 606   **SUBJECT NAME:** DISTRIBUTED SYSTEMS

DATE:7/11/2015   TIME:10:30 a.m. TO 1:30 p.m.   TOTAL MARKS:70

Instructions:
1. Answer each section in separate Answer Sheet.
2. Use of scientific Calculator is permitted.
3. All questions are compulsory.
4. Indicate **clearly**, the options you attempted along with its respective question number.
5. Use the last page of main supplementary for rough work.

SECTION-1

Q.1 (a)   What is a Distributed System? State any Three advantages and disadvantages of distributes systems with respect to centralize systems.   [5]

(b)   Explain Static and Dynamic RPCs.   [5]

(c)   What is failure in IPC? How can we handle them?   [5]
OR
(c)   In group communication, what are the various message ordering schemes? Explain CBCAST scheme.   [5]

Q.2 (a)   Explain synchronization with respect to distributed systems.   [5]

(b)   Why traditional network protocols are not suitable for distributed systems? Explain VMTP protocol used for distributed system.   [5]
OR
Q.2 (a)   Discuss various dead lock detection algorithms in distributes systems.   [5]

(b)   Explain Berkley clock Synchronization algorithm with an example.   [5]

Q.3 (a)   What is process migration? List the steps in process migration. Explain any one in detail.   [5]

(b)   Explain in brief Google File System.   [5]
OR
Q.3 (a)   List down various distributed system models. Explain any two of them in detail.   [5]

(b)   Write a short note on WWW 1.0.   [5]

Q.4 (a) Discuss the issues in designing load-sharing algorithms.   [5]

(b) List various issues in message passing system. Explain any one.   [5]

(c) What is an Orphan Call? How are Orphan Calls handled in the implementation of   [5]
the following types of call semantics:
(i) Last-one call semantics
(ii) Last-of-many call semantics
(iii)At-least-once call semantics

OR

(c) Differentiate LAN and WAN. Also compare Bridge, Router and gateway.   [5]

Q.5 (a) Draw and explain RPC architecture.   [5]

(b) Define thrashing in DSM. Also explain methods for solving thrashing problem in   [5]
DSM.

OR

Q.5 (a) What are threads? Enumerate the major differences between threads and   [5]
processes. Discuss thread synchronization.

(b) Explain Java RMI. What are the components and processes of Java RMI   [5]
execution?

Q.6 (a) Briefly explain models for organizing threads for process management in   [5]
distributed systems.

(b) Discuss and compare various election algorithms.   [5]

OR

Q.6 (a) Discuss load estimation policy and Process transfer policy in load balancing   [5]
algorithms.

(b) Discuss various issues in implementing DSM systems.   [5]

******BEST OF LUCK******