

# **LOYOLA ACADEMY DEGREE & PG COLLEGE, OLD ALWAL**

**(An Autonomous and RE-accredited with 'A' Grade by NAAC)**

**MCA II/II Final Examination, July/Aug- 2014**

**Subject : Web Programming**  
**Sub. Code : MCA 11404**

**Exam Time : 3 hrs**  
**Max. Marks : 100**

**Answer the following Questions: -**

**(5\*20M=100M)**

## **UNIT -I**

- 1) a) What is a list? Explain about different kind of lists. **10M**  
b) Define DHTML.Explain CSS with suitable DHTML code. **10M**
- (OR)**
- 2) a) Explain External style sheet with example. **10M**  
b) Explain about form object and its elements. **10M**

## **UNIT -II**

- 3) a) Explain ONMOUSEOVER and ONMOUSEOUT events ,with a sample code for each **10M**  
b) Define collection .Explain any two collections with a suitable example **10M**
- (OR)**
- 4) a) Explain TDC binding to table. **10M**  
b) Define filter.Discuss about any three filters in detail. **10M**

## **UNIT -III**

- 5) a) Discuss different Java script control structures, with example. **12M**  
b) What is recursion? Write a java script program demonstrating recursive function. **8M**
- (OR)**
- 6) a) Write a Java script program to demonstrate passing arrays to functions. **10M**  
b) Write about math object and its functions with example. **10M**

## **UNIT -IV**

- 7) a) Define a web server .Explain Apache web server in detail. **12M**  
b) Write a program in VB script to calculate factorial of a number. **8M**
- (OR)**
- 8) a) Explain classes and objects in VB script **10M**  
b) Write about all the data types available in VB script. **10M**

## **UNIT -V**

- 9) a) Explain about string processing and regular expression in PERL with example. **10M**  
b) What is DTD? Explain with a suitable code. **10M**
- (OR)**
- 10) a) Explain about server side Active X component. **10M**  
b) Discuss about file system objects with their methods. **10M**

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**MCA II/II Final Examination, July/Aug- 2014**

**Subject : Data Warehousing and Data Mining**  
**Sub. Code : MCA 11401**

**Exam Time : 3 hrs**  
**Max. Marks : 100**

**Answer any one from each unit:-**

## **UNIT -I**

- 1) a) Explain about Data Mining related areas, issues and future trends. 10M  
b) Discuss various FIM algorithms. 10M  
**(OR)**  
2) a) Define Association Rule .Explain any one association rule. 10M  
b) Discuss the use of negative border in Sampling algorithm. 10M

## **UNIT -II**

- 3) a) Discuss about measurement of similarity 10M  
b) Write notes on Density based and Grid based methods of clustering. 10M  
**(OR)**  
4) a) Explain about classification and its applications. 10M  
b) Discuss about the approaches used in Hierarchical methods used in clustering  
Explain BIRCH algorithm in detail. 10M

## **UNIT -III**

- 5) a) List the differences between operational and decision support systems.Explain  
Data ware house users, benefits and concerns of Dataware Housing. 10M  
b) Explain about life cycle of data. 10M  
**(OR)**  
6) a) Explain about roles, classification of Metadata .Give its importance. 10M  
b) Explain information flow mechanism in detail

## **UNIT -IV**

- 7) a) Explain about data Ware House Architecture 10M  
b) Give the differences between data Mart and data ware house.What are  
the advantages and limitations of a data mart? 10M  
**(OR)**  
8) a) Write a short note on Snow Flake Schema. 10M  
b) What is a fact table? List its characteristics. 10M

## **UNIT -V**

- 9) a) Write notes on performance enhancement using Data ware house. 10M  
b) Explain the need for Data Quality .What are the errors affecting Data quality? 10M  
**(OR)**  
10) a) Explain various OLAP models. 10M  
b) What are the basic guidelines that are used to measure the effectiveness of  
OLAP tools and products available in the market? 10M

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LOYOLA ACADEMY DEGREE & PG COLLEGE, OLD ALWAL

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MCA II/II Final Examination, July/Aug- 2014

**Subject : Distributed Systems**  
**Sub. Code : MCA 11406**

Exam Time : 3 hrs

Max. Marks : 100

**Answer one question from each unit:**

## **UNIT-I**

- 1) a) Discuss the goals of Distributed system. 10M  
b) What is meant by code migration .Explain the need of code migration 10M

(OR)

- 2) a) Explain the Software agents in distributed system  
b) Write short notes on the following

UNIT II

- 3) a) Explain how mobile entities are located by taking suitable example **10M**  
b) Discuss Name Resolution Implementation in Distributed system **10M**

(OR)

- 4) a) Explain clock synchronization Algorithms  
b) Discuss about mutual exclusion. 10M

UNIT III

- 5) a) What are the data –centric consistency models? Explain in detail. 10M  
b) Explain consistency Protocols. 10M

(OR)

- 6) a) Explain about different types of failures  
b) Explain Reliable Group Communication

## **UNIT-IV**

- 7) a) Explain CORBA architecture and its services 15M  
b) Explain CODA features 5M

(OR)

- 8) a) Write a comparsion between CORBA, DCOM and GLOBE. 15M  
b) Explain SUN NFS features 5M

UNIT-V

- 9) a) Define Distributed shared Memory and explain its Advantages. 10M  
b) Explain the Algorithms for implementing Distributed shared Memory 10M

(OR)

- 10) a) Explain Memory Coherence 10M  
b) Explain Load Distributing Algorithms. 10M

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**MCA II/II Final Examination, July/Aug- 2014**

**Subject : Unix Programming**  
**Sub. Code : MCA 11403**

**Exam Time : 3 hrs**  
**Max. Marks : 100**

## **UNIT-I**

- 1) a) Explain about Unix security and file permission features. 10M  
b) Discuss about regular expression of Unix 10M  
**(OR)**  
2) a) Explain about Unix commands and file system. 10M  
b) Write short notes on shell programming. 10M

## **UNIT -II**

- 3) a) Explain about advanced socket system calls. 10M  
b) Disuss about socket signals. 10M  
**(OR)**  
4) a) Explain about Reserved ports 8M  
b) Discuss about necessary system call sequence in connection oriented client-server communication. 12M

## **UNIT III**

- 5) a) Give an overview of scalar variables and cotrol statements of perl with examples 10M  
b) Explain about regular expression and pattern matchimg using perl with examples 10M  
**(OR)**  
6) a) Explain about common gateway interface 10M  
b) Write a function that finds the median of a given array 10M

## **UNIT -IV**

- 7) a) Give an introduction to PHP with its primitives ,operations and expressions 10M  
b) Discuss about cookies and session tracking features of PHP 10M  
**(OR)**  
8) a) Discuss about database access in PHP. 8M  
b) What is an array? Explain how arrays are represented in PHP with examples 12M

## **UNIT -V**

- 9) a) Give syntax and examples for loops and conditional statements of python 10M  
b) Discuss briefly about python objects ,strings lists and tuples with examples 10M  
**(OR)**  
10) a) Write notes on errors and exceptions in pythons 10M  
b) Discuss the object oriented programmimg features of python with suitable examples 10M

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MCA II/II Final Examination, July/Aug- 2014

**Subject : Distributed Systems**  
**Sub. Code : MCA 11406**

**Exam Time : 3 hrs**

Max. Marks : 100

**Answer one question from each unit:-**

## **UNIT-I**

- 1) a) Discuss the goals of Distributed system. 10M  
b) What is meant by code migration .Explain the need of code migration 10M

(OR)



UNIT-II

- 3) a) Explain how mobile entities are located by taking suitable example **10M**  
b) Discuss Name Resolution Implementation in Distributed system **10M**

(OR)

UNIT-III

- 5) a) What are the data –centric consistency models? Explain in detail. **10M**  
b) Explain consistency Protocols **10M**

(OR)



UNIT-IV

- 7) a) Explain CORBA architecture and its services 15M  
           b) Explain CODA features 5M

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- 8) a) Write a comparison between CORBA, DCOM and GLOBE. 15M  
b) Explain SUN NFS features 5M

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- 9) a) Define Distributed shared Memory and explain its Advantages. 10M  
     b) Explain the Algorithms for implementing Distributed shared Memory 10M

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**Subject : Distributed Systems**  
**Sub. Code : MCA 11406**

Exam Time : 3 hrs

Max. Marks : 100

**Answer one question from each unit:-**

UNIT-I



UNIT-II

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b) Discuss Name Resolution Implementation in Distributed system 10M

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- 4) a) Explain clock synchronization Algorithms 10M  
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**MCA II/II Final Examination, July/Aug- 2014**

**Subject : Computer Networks**  
**Sub. Code : MCA 11402**

**Exam Time : 3 hrs**  
**Max. Marks : 100**

**1. Answer any one from each unit:-**

UNIT-I

- 1 a) What is line coding? Explain 10M  
b) Explain RS 232 Interface 10M

(OR)

- 2a) Explain types of connections and Topologies of Net works 10M  
b) Explain the OSI reference model with neat diagram 10M

UNIT-II

- 3a) Explain stop and wait 5M  
 b) Go back-N 5M  
 c) Selective repeat ARQ 10M

(OR)

- 4a) Explain Pure and Slotted ALOHA 8M  
b) Explain IEEE 802.3 Ethernet and explain bridges 12M

UNIT-III

- 5a) Distinguish between Link state and distance Vector routing algorithms **10M**  
b) Explain IP Addresses and Subnets **10M**

(OR)

- 6a) Explain CIDR 10M  
b) Explain OSPF and BGP 10M

UNIT-IV

- 7a) Explain Multiplexing and UDP 10M  
    b) Explain congestion control and Timer management 10M

(OR)

- 8a) Explain different address structures 10M  
b) Discuss the services of transport layer 10M

UNIT-V



(OR)

- 10a) What is the architecture of WWW? Discuss requirements of server side and client side 10M

b) Explain DNS 10M

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**Subject : Unix Programming  
Sub. Code : MCA 11403**

**Exam Time : 3 hrs  
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## **UNIT-I**

- 1) a) Explain about Unix security and file permission features. 10M  
b) Discuss about regular expression of Unix 10M

**(OR)**

- 2) a) Explain about Unix commands and file system. 10M  
b) Write short notes on shell programming. 10M

## **UNIT -II**

- 3) a) Explain about advanced socket system calls. 10M  
b) Disuss about socket signals. 10M

**(OR)**

- 4) a) Explain about Reserved ports 8M  
b) Discuss about necessary system call sequence in connection oriented client-server communication. 12M

## **UNIT III**

- 5) a) Give an overview of scalar variables and cotrol statements of perl with examples 10M  
b) Explain about regular expression and pattern matchimg using perl with examples 10M

**(OR)**

- 6) a) Explain about common gateway interface 10M  
b) Write a function that finds the median of a given array 10M

## **UNIT -IV**

- 7) a) Give an introduction to PHP with its primitives ,operations and expressions 10M  
b) Discuss about cookies and session tracking features of PHP 10M

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- 8) a) Discuss about database access in PHP. 8M  
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- 9) a) Give syntax and examples for loops and conditional statements of python 10M  
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# LOYOLA ACADEMY DEGREE & PG COLLEGE, OLD ALWAL

(An Autonomous and RE-accredited with 'A' Grade by NAAC)

MCA II/I Supplementary Examination, Aug- 2014

Subject : Design Analysis Of Algorithm  
Sub. Code : MCA 11303

Exam Time : 3 hrs  
Max. Marks : 100

## UNIT -I

- 1) a) Explain various Asymptotic notations .Give the asymptotic complexity for Addition of two matrices.  
b) Give the algorithm for fibonaci numbers and determine its time complexity by the step count method.

(OR)

- 2) a) What is Primality Testing? Explain about Miller Rabins' Primality testing algorithm.  
b) Give the algorithm and example to insert an element into heap.

## UNIT -II

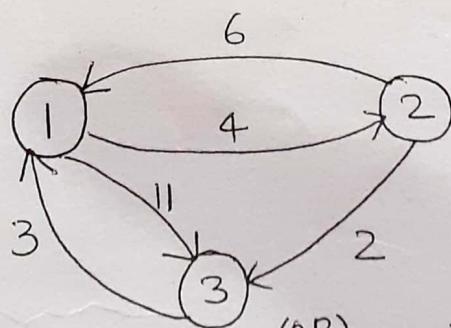
- 3) a) Explain Merge Sort algorithm with example .Obtain its time complexity.  
b) Explain the Strassen's matrix multiplication with example.

(OR)

- 4) a) Explain about Tree Vertex Splitting algorithm with example.  
b) Explain Kruskal's algorithm for finding minimum cost spanning tree with example.

## UNIT -III

- 5) a) What is breadth first search? Explain the algorithm with example.  
b) Write an algorithm for All Pairs Shortest Path problem .Use it to solve the following



- 6) a) What is travelling Sales Person problem? Write an algorithm using dynamic programming.  
b) Explain the construction of optimal binary search tree.

(P.T.O)

## **UNIT -IV**

- 7) a) Draw a portion of state space tree generated by least count branch & bound by the following Knapsack problem.

$$N = 5; (P_1, P_2, P_3, P_4, P_5) = (10, 15, 6, 8, 4);$$

$$(W_1, W_2, W_3, W_4, W_5) = (4, 6, 3, 4, 2) \text{ and } m = 12$$

- b) Write and Explain n-Queens algorithm.

**(OR)**

- 8) a) Explain graph coloring and give the algorithm to find all m- coloring of a graph.

- b) Write a recursive back tracking algorithm to find all Hamiltonian cycle of a given graph.

## **UNIT -V**

- 9) Explain the following problems:

(a) Node Cover Problem

(b) NP-Hard &NP-Complete

**(OR)**

- 10) a) Explain AND/OR graph decision problem with example.

- b) Explain about flow shop scheduling.