

Nalanda Open University

Assignment (2010-2013)

2011

Master of Computer Application (MCA)-Part-II

Each student shall be required to submit two assignments in each theory paper of all programmes where no practical/project work is prescribed. For this purpose, the University administration will set out and provide to each student three different topics in each theory paper; out of which he/she will be required to write out and submit assignment work only on two topics of his/her choice in the answer book provided to him/her for this purpose by the University. Both the assignments, each carrying equal marks, shall be evaluated for the purpose of examination. It is again emphasized that writing of two assignments in each theory paper, where no practical / project work is prescribed, is compulsory and unless it is done and assignment copy submitted to the University on the date of the examination of the theory portion of the concerned paper, the study requirement of the student will not be taken to have been completed and he/she will be declared to have failed. Besides, it has, now, been decided by the University to club the marks obtained by a student in his/her assignment work / project work with the marks obtained by him/her in the written examination of that paper to determine his/her pass percentage in the concerned paper. Hence, it is in student's interest that he/she submits the assignment work in time. Students are also advised to prepare their assignments very carefully and meticulously. They must write assignment in their own handwriting. Assignment answers should not be copied from the learning material supplied by the University or from any other source. Assignments must be submitted in the answer books provided to the students by the University for this purpose. In no case, assignment written in private copy will be accepted by the University. In case of loss of assignment copy, fresh assignment copy may be procured from the University on payment of Rs. 100.00 by bank draft. Similarly, Project-Work, wherever prescribed, must also be submitted by the fixed date, failing which the student will be deemed to have failed in the concerned subject.

ASSIGNMENT QUESTIONS

Paper-XI, XV and XX (Practical Work)

Paper-XII

(MCS-032(Object Oriented Analysis And Design))

Answer Any Two Questions.(सभी प्रश्न 10-10 अंकों के हैं)

1. What is the purpose of dynamic modeling? Explain the two strategies to implement state chart with suitable examples.
2. What do you mean by association in a UML diagram? Briefly describe various types of associations available in UML with examples for each.
3. Explain important features of object oriented language with an example for each. How are events happening between objects controlled?

Paper-XIII

(MCS-034(Software Engineering))

Answer Any Two Questions.(सभी प्रश्न 10-10 अंकों के हैं)

1. Differentiate software, program and algorithm on relevant attributes. Software does not wear-out. Comment and justify.
2. Explain the different phases of Waterfall Model in detail. What do you understand by the term software development life cycle? Explain.
3. What are the various levels of testing? Explain with examples. Briefly discuss about the risk management.

Paper-XIV

Answer Any Two Questions.(सभी प्रश्न 10-10 अंकों के हैं)

1. Briefly describe the accounting concept and conventions.
2. What is Final Account and Financial Statement? How is it prepared?
3. What is Ratio Analysis? Discuss its importance and limitations in business.

Paper-XVI

(MCS-021(Data and File Structures))

Answer Any Two Questions.(सभी प्रश्न 10-10 अंकों के हैं)

1. Write a program to implement a circular queue using pointers with functions for insertion, deletion. (Use singly linked list).
2. Write a program to implement addition of two polynomials using stack. Explain each step along with the variables used.
3. Explain different types of minimum cost spanning tree with a suitable example.

Paper-XVII

(MCS-022(Operating system concepts and networking management))

Answer Any Two Questions.(सभी प्रश्न 10-10 अंकों के हैं)

1. What is symmetric multiprocessing? Write the important advantages of symmetric multiprocessor over uniprocessor architecture.
2. Describe the concept of encrypting using EFS services. Write the main steps for configuring the Local Area Network in Window XP.
3. What is on-line communication and off-line communication in LINUX? Give at least two commands to carry out each of these communications in LINUX.

Paper-XVIII

(MCS-023(Introduction to Database Management Systems))

Answer Any Two Questions.(सभी प्रश्न 10-10 अंकों के हैं)

1. Define 3NF. Explain 3NF using suitable examples. Compare and contrast between with 3NF and BCNF giving examples for each..
2. Explain the concept of data independence. List and explain all the types of constraints which can be violated while modifying database values.
3. What is a transaction? Describe the ACID properties of transaction with suitable examples.

Paper-XIX

MCS-024(Object Oriented Technologies and Java Programming)

Answer Any Two Questions.(सभी प्रश्न 10-10 अंकों के हैं)

1. What makes compiled JAVA programs platform independent? Write a program to sort the list given as command line arguments using bubble sort.
2. What is Java Bean? What are its advantages? What is Introspection in Java Beans? Illustrate with a code fragment.
3. Write short notes on (i) Inter thread communication (ii) Event Handling in Java

Nalanda Open University

Assignment (Session 2009-2012) 2011

Master of Computer Application (MCA)-Part-III

Each student shall be required to submit two assignments in each theory paper of all programmes where no practical/project work is prescribed. For this purpose, the University administration will set out and provide to each student three different topics in each theory paper; out of which he/she will be required to write out and submit assignment work only on two topics of his/her choice in the answer book provided to him/her for this purpose by the University. Both the assignments, each carrying equal marks, shall be evaluated for the purpose of examination. It is again emphasized that writing of two assignments in each theory paper, where no practical / project work is prescribed, is compulsory and unless it is done and assignment copy submitted to the University on the date of the examination of the theory portion of the concerned paper, the study requirement of the student will not be taken to have been completed and he/she will be declared to have failed. Besides, it has, now, been decided by the University to club the marks obtained by a student in his/her assignment work /project work with the marks obtained by him/her in the written examination of that paper to determine his/her pass percentage in the concerned paper. Hence, it is in student's interest that he/she submits the assignment work in time. Students are also advised to prepare their assignments very carefully and meticulously. They must write assignment in their own handwriting. Assignment answers should not be copied from the learning material supplied by the University or from any other source. Assignments must be submitted in the answer books provided to the students by the University for this purpose. In no case, assignment written in private copy will be accepted by the University. In case of loss of assignment copy, fresh assignment copy may be procured from the University on payment of Rs.100.00 by bank draft. Similarly, Project-Work, wherever prescribed, must also be submitted by the fixed date, failing which the student will be deemed to have failed in the concerned subject.

Paper-XXI

(MCS-041 : OPERATING SYSTEMS)

Answer Any Two Questions.(सभी प्रश्न 10-10 अंकों के हैं

1. What is a semaphore? Give a solution to 'Readers - Writers' problem using semaphore. Explain the steps.
2. Explain the implementation of RPC in a distributed system. Explain memory organization in UNIX. Draw appropriate diagrams.
3. Explain different types of Multiprocessor Interconnections? What is the significance of Time Consistency? Explain with an example.

Paper-XXII

(MCS-043 : ADVANCED DATABASE MANAGEMENT SYSTEM)

1. State fourth and fifth normal form. Consider a relation R (A, B, C) with functional dependencies, (i) AB → C; (ii) C → A. Decompose the relation R into BCNF relations.
2. Explain the following in the context of ORACLE with examples :- Triggers, Security, Data Dictionary, Indexing
3. With reference to special Databases and GIS explain the following :
(a) Application of Geographic Databases.(b) Requirements of a GIS.
(c) Operations on the data captured in GIS.

Paper-XXIII

(MCSL-45 LAB WORK (UNIX AND ORACLE))

Paper-XXIV

(MCS - 51 : ADVANCED INTERNET TECHNOLOGIES)

Answer Any Two Questions.(सभी प्रश्न 10-10 अंकों के हैं

1. What are the advantages of services over other common server extension mechanisms?
2. Explain different methods of service () method (of Servlet) to implement the request and response.
3. Explain web security with suitable examples. Explain the different procedure of Recovery after system failure.

Paper-XXV

(MCS-053 : COMPUTER GRAPHICS AND MULTIMEDIA)

Answer Any Two Questions.(सभी प्रश्न 10-10 अंकों के हैं

1. Differentiate between Random and Raster Scan display devices. Use DDA line generation algorithm to draw a line from (2, 2) to (8, 6).
2. Derive a general transformation matrix for 3-D rotation about x-axis. Perform a 45° rotation of a triangle A (1, 1), B (5, 1), C (3, 5) about an arbitrary point (3, 3).
3. What will happen if duplication is allowed? Why file Compression Techniques are beneficial in Computer Graphics ?

Paper-XXVI

(MCSL-54 Lab work (based on paper-24 & 25))

Paper-XXVII

(MCSE-003 : ARTIFICIAL INTELLIGENCE AND KNOWLEDGE MANAGEMENT)

Answer Any Two Questions.(सभी प्रश्न 10-10 अंकों के हैं

1. Explain types of knowledge with suitable examples for each. Explain the difference between Prenex normal form and Skolem standard form.
2. Define the following concepts, each with a suitable example: (i) Sound Argument. (ii) Interpretation of a formula. (iii) Consistent formula. (iv) Disjunctive Normal Form.
3. Using resolution method, solve the following logic problem. - (i) Some patients like all doctors. (ii) No patient likes any quake. (iii) Therefore, no doctor is a quake.

Paper-XXVIII

(MCSE-004 : NUMERICAL AND STATISTICAL COMPUTING)

Answer Any Two Questions.(सभी प्रश्न 10-10 अंकों के हैं

1. Use Gauss - Elimination method to solve the following system of equations:
 $x_1 + x_2 + x_3 = 3$, $4x_1 + 3x_2 + 4x_3 = 8$, $9x_1 + 3x_2 + 4x_3 = 7$
2. Find a root (correct to three decimal place) of $x^3 - 5x + 3 = 0$ by Newton-Raphson method.
3. Use Jacobi's method to solve the equation:
 $20x + y - 2z = 17$, $3x + 20y - z = -18$, $2x - 3y + 20z = 25$

Paper-XIX

(APPLICATION DEVELOPMENT WITH .NET FRAMEWORK)

Answer Any Two Questions.(सभी प्रश्न 10-10 अंकों के हैं

1. Explain various features of ASP.net 2.0. with suitable examples.
2. What is ADO.net. Explain various statements used in ADO.net
3. Design a Form and code in VB.net to store details of student in a database table.

Paper-XXX (MCSP-060- PROJECT)