

Nalanda Open University
Assignment Session (2014-2017)
(Year of Issue -2017 for Examination 2018)
Master of Computer Application (MCA)-Part-III

Method of Submission of Assignment

Each student shall be required to submit two assignments of 20 marks 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. Define Operating system? Explain different types and functions of operating systems.
2. What is Concurrent Programming? Explain Sleeping Barber Problem with example.
3. Explain Lamport's algorithm for ordering of events in a distributed environment.

Paper-XXII

(MCS-043 : ADVANCED DATABASE MANAGEMENT SYSTEM)

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

1. Explain the role of Query Optimizer in Oracle. Explain the algorithm and cost calculation for Simple Hash Join.
2. What are cursors, stored procedures and triggers? Give SQL syntax for each and discuss the utility aspect of each.
3. Write a short note with suitable example :- (i) Vendor-Specific Security (ii) Multilevel Security

Paper-XXIII(Practical)

Paper-XXIV

(MCS - 51 : ADVANCED INTERNET TECHNOLOGIES)

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

1. Discuss the different categories of session beans. What are the advantages of XML over HTML? Why is SGML not used over the web?
2. Write a servlet to use a user-id and password stored in a database to authenticate a user. What is JNDI authentication? Explain with suitable example.
3. Write an HTML script with an embedded script to print the current time. Discuss the JSSE set of packages that support and implement the SSL.

Paper-XXV

(MCS-053 : COMPUTER GRAPHICS AND MULTIMEDIA)

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

1. What are touch panels? List different touch panels that are currently available for use.
2. Explain DDA line drawing algorithm. What are the disadvantages of this algorithm?
3. Differentiate the following :-(i) Bitmap vs Vector graphics (ii) JPEG vs GIF (iii) Hypertext vs Hypermedia

Paper-XXVI (Practical)

Paper-XXVII

(MCSE-003 : Artificial Intelligence And Knowledge Management)

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

1. In context of the objections to the Turing Test, briefly discuss the Chinese Room Test. Describe 'Means-End Analysis' as a problem solving technique.
2. Explain the following terms with examples :-(i) Resolution and Unification (ii) MYCIN and EMYCIN
3. What are S-Expressions in LISP? Draw tree structure to classify the various categories of S-Expressions. Write a recursive program in LISP to find factorial of a number given by the user.

Paper-XXVIII

(MCSE-004 : NUMERICAL AND STATISTICAL COMPUTING)

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

1. Using Runge Kutta method of order 4 compute $y(0.2)$ and $y(0.4)$ for the IVP $10y' = x^2 + y^2$ $y(0) = 1$ taking $h = 0.1$.
2. What is the utility of residual plots? What is the disadvantage of residual plots?
3. Explain the Binomial Distribution and Poisson distribution.

Paper-XXIX

(APPLICATION DEVELOPMENT WITH .NET FRAMEWORK)

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

1. Explain Common Language Runtime features. Why are they used?
2. What is Session State in ASP.NET? Explain in detail with an example.
3. Explain different types of Looping Statements in VB.NET with examples.

Paper-XXX (MCSP-060- PROJECT)