

Nalanda Open University
Assignment Questions (Session-2018-21)
(Year of Issue -2018 for Examination 2019)
Master of Computer Application (M.C.A.) Part-I

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.

ASSIGNMENT QUESTIONS

Master of Computer Application (M.C.A.) Part-I (Old Book)

Paper-I

(Answer Any Two Questions (All questions are of 10 marks.)

1. Explain with examples different types of relational operators used in "C"?
2. List and explain various control constructs in "C" language with an example.
3. What is a storage class in "C"? Explain by giving examples.

Paper-II

(Answer Any Two Questions (All questions are of 10 marks.)

1. What are flip-flops? Explain the working of master and slave flip flop with circuit diagram.
2. What is the function of a counters? Explain different types of counters with circuit diagram.
3. What is memory in computers? Discuss different types of memories used in Computers.

Paper-III

(Answer Any Two Questions (All questions are of 10 marks.)

1. Define the tautology and prove that $\sim p \vee (p \vee q)$ is a tautology.
2. Define the logic circuit and also explain the OR gate and AND gate.
3. If $10P_{n-1} : 11P_{n-2} = 30 : 11$ then find the value of n.

Paper-IV

(Answer Any Two Questions (All questions are of 10 marks.)

1. Draw Data Flow Diagram and develop SRS for School management system.
2. Discuss of preliminary investigation? List and explain the methods to gather the data during the preliminary investigation.
3. Explain the necessary consideration and conditions in selecting the data storage media for a S/W project.

Paper-V

(Answer Any Two Questions (All questions are of 10 marks.)

1. Prepare a conversation between two persons about distance education through an Open University.
2. Write down the text of a group discussion between four participants on the need to make the office a paper- free office, thus largely depending on the computer and Internet/networking for correspondence, communication and documentation.
3. Write an essay on different types of communication.

Paper-VI (Practical Work)

Paper-VII

(Answer Any Two Questions (All questions are of 10 marks.)

1. Define Quick sort? Give an example to illustrate Quick sort algorithm.
2. Explain Principal of Optimality. Give an example of chained matrix multiplication.
3. Describe different types of minimum spanning trees with examples.

Paper-VIII

(Answer Any Two Questions (All questions are of 10 marks.)

1. Find the sum σ'_n of the first n-natural number using generating functions.
2. Construct a 5-regular graph on 10 vertices.
3. (a) For which values of m and n is $K_{m,n}$ a tree ? (b) For which values of n is k_n Eulerian ?

Paper-IX

(Answer Any Two Questions (All questions are of 10 marks.)

1. Define networking. Explain in detail the OSI model of networking?
2. Explain operation of Bridges in different LAN environment? Define broadcasting.
3. Describe various types of transmission modes with an example of each.

Paper- X

(Answer Any Two Questions (All questions are of 10 marks.)

1. Discuss the need and evaluation procedure for MIS in any organization.
2. Describe the tools used for requirement analysis of software design and its management.
3. What are evolutionary algorithms? Discuss its different branches.

ASSIGNMENT QUESTIONS

Master of Computer Application (M.C.A.) Part-I) (New Book)

Paper-I

(Practical Work)

Paper-II

(Answer Any Two Questions (All questions are of 10 marks.)

1. What is memory in computers? Discuss different types of memories used in Computers.
2. Describe structure of a CPU. Explain different types of general registers in a found in processors.
3. Write an assembly language program to add two numbers and display their results.

Paper-III

(Answer Any Two Questions (All questions are of 10 marks.)

1. Define the tautology and prove that $\sim p \vee (p \vee q)$ is a tautology.
2. Define the logic circuit and also explain the OR gate and AND gate.
3. What is the probability that a number between 1 and 10000 is divisible by neither 2, 3, 5 nor 7 ?

Paper-IV

(Answer Any Two Questions (All questions are of 10 marks.)

1. Define communication and highlights its importance.
3. What are advantages and limitations of written communication?
3. Write a note on advantage and disadvantages of Multimedia.

Paper-V

(Answer Any Two Questions (All questions are of 10 marks.)

1. What is a System? Discuss different types of system with examples.
2. Describe the phases of System Development Life Cycle (SDLC) in detail.
3. Who is a System Analyst? Discuss the role and responsibility of a system Analyst.

Paper-VI

(Practical Work)

Paper-VII

(Answer Any Two Questions (All questions are of 10 marks.)

1. Describe the characteristics of Object Oriented systems.
2. Explain Object Oriented Analysis process in detail with the help of an example.
3. Discuss different types of inheritance with examples. What is abstraction?

Paper-VIII

(Practical Work)