Sai Nath University

Assignment For MCA 4TH Sem.

The Assignment will consist of two parts, A and B. Part A will have 5 short answer questions(40-60 words) of 4 marks each. Part B will have 4 long answer questions of 5 marks each.

All questions are compulsory.

These Assignments should be completed and submitted in written form by the student to his/her respective Faculty/ Examiners. Assignment Submission Dates are:

- **June-18**

List of Suggested Questions

The list of suggested questions is for students to practice. Although optional, we recommend that students solve these questions, as they will help them in preparing for exams as well as in clearing the important concepts of the subject.

List of Practical and suggested practical's

The list of practical's should be done by the students in their Lab Sessions. These are the basic practical's, which each student should be able to do himself independently. While the list of suggested practicals are optional, but it is recommended that students should perform those practical so as to have a thorough knowledge of the subject

Education Delivery Schedule (EDS)

As per University Semester scheme, the minimum contact hours of each paper has been

Divided into two hours theory and practical class.

The faculty will maintain this attendance paper wise for his/her batch.

Subject Code	Subject Name
MCA 410	OPERATING SYSTEMS
MCA 420	COMPUTER ORGANISATION AND ARCHITECTURE
MCA 430	SOFTWARE VERIFICATION VALIDATION AND TESTING
MCA 440	COMPUTER GRAPHICS
MCA 450 P	PROGRAMMING LAB- (DBMS)
MCA 460	E-COMMERCE

SAI NATH UNIVERSITY

Cover page of Assignment

ID NUMBER	……
NAME	…… ……
COURSE	MCA……
STREAM	……
SEM	4TH ……
SUBJECT CODE	……
SUBJECT NAME	……

Assignments will be completed by the Student in his/her own handwriting.

MCA 410

OPERATING SYSTEM

Part A

1. What are local and global page replacements?
2. List out some reasons for process termination.
3. What are demand-paging and pre-paging?
4. What are the possible threads a thread can have?
5. What is cycle stealing?

Part B

1. What is a binary semaphore? What is its use?
2. What is the difference between contiguous memory allocation and dynamic memory allocation?
3. What is difference between Dynamic Loading and Demand Paging ?
4. What is working set algorithm with reference to paging .Give an example with diagram. How it is used for dynamic partitioning?

MCA 420

COMPUTER ORGANISATION AND ARCHITECTURE

Part A

1. Write rules of binary subtraction with example.
2. Convert a binary no in its equivalent hexadecimal number.
3. What is flip flop? Explain in brief with its types.
4. What are logic gates? Explain with diagram and truth table.
5. What is half adder? Explain with diagram and truth table .

Part B

1. Explain with diagram full adder?
2. What is decoder? How decoder works.
3. What is K-Map? What is the use of K-Map?
4. What is multiplexer explain with clear diagram.

MCA 430

SOFTWARE VERIFICATION, VALIDATION & TESTING

Part A

1. What do you mean by software verification? Explain with example.
2. What do you mean by software validation? Explain with example.
3. What is software testing? What is its use in development of software?
4. Explain Alfa testing and Beta testing in software development?
5. Write short notes on Black box testing and White box testing?

Part B

1. Write difference between software verification and software validation?
2. Explain software Testing phase in SDLC.
3. What is data collection? What are Data collection methods used in software development?
4. Explain the terms : Data, Meta data, Data dictionary and Data Flow Diagram (DFD).

MCA 440

COMPUTER GRAPHICS

Part A

1. What is computer graphics?
2. Write the important applications of computer graphic?
3. What are the hardware devices used for computer graphics?
4. What is meant by scan code?
5. What are the raster and vector graphics?

Part B

1. Write the difference between vector and raster graphics?
2. What is scaling in computer graphics?
3. What are the advantages of electrostatic plotters?
4. Define Random and Raster scan displays?

MCA-450P

PROGRAMMING LAB- (DBMS)

1. Create a table named STUDENT with studentname, fathername, address.
2. Insert 10 records in above table.
3. Alter a new column, named mobileno in above table.
4. Insert mobile number of student in his record in above table.
5. Print all records where name starts with ‘a’.
6. Print all students name and their address with mobile no.
7. Create a new table student1 and copy all the records of student table in it except father name.

MCA-460 EL

E-COMMERCE

Part A

1. What is e-commerce?
2. Explain advantages and disadvantages of E-Commerce.
3. Explain the Architecture of E-Commerce.
4. Explain the components of E-Commerce.
5. Explain different applications of E-Commerce.

Part B

1. What are the different models of E-Commerce?
2. Explain about B2C model?
3. Explain about the Web-based E-commerce architecture?
4. What are the requirements of web-based E-commerce?