Course Code: CIT 381

Course Unit: 3

Course Title: File Processing and Management

Instruction: Answer Question One and Any Four Other Questions

Time allowed: 2 1/2 hrs

1a.　Define the following terms

　　i. File　ii. Field　　　iii. Record
　　6 marks

b.　List and explainfour attributes a file could possess.
　　8 marks

c.　differentiate between Pre-Allocation andDynamic allocation policy.
　　　　4 marks

d.　Write a program in C that opens a file named sample.txt, writes a string of characters to the file, and then closes it.
　　　　　　4 marks

2a.　Discuss how to name a file and give examples of valid and invalid filenames.
　　　　3 marks

b.　What types of file extensions will the following contain?

　　i. A movie in a Video CD

　　ii. A word-processed file

iii. A file in a Musical CD

iv. A Scanned image
4 marks

c.   What are the important issues to consider when selecting a file organization?
2 marks

d.   Make a diagrammatic representation of the pile/serial and the sequential file organization method.
3 marks

3a.   Explain the Indexed Sequential File Organization method
3 marks

b.   List and Explain two objectives of File Management Systems
4 marks

c.   Enumerate any five typical operations supported by File Management System
2½ marks

d.   Draw a diagram to represent the file system software architecture
2½ marks

4a.   What is a path name?
2 marks

b.   differentiate between relative and absolute path names
2 marks

c.   Explain three types of operation that can be performed on a file
6 marks

d.   Enumerate four access rights that can be assigned to a particular user for a particular file

2

marks

5a.   Enumerate three methods of record blocking
3 marks

b.   Explain Free Space Management
4 marks

c.   Write a short note on the different techniques that can be used in improving system performance
5 marks

6a.   Define the following terms

i. Backup   ii.Full dump   iii. Incremental Dumpiv. Trojan horse   v. Virus
        2½ marks

b.   Define Data Validation
        2 marks

c.   What is a check digit in Data Validation?
                2 marks

d.   Briefly explain data corruption
        3 marks

e.   List five different sorting techniques.
2½ marks