

**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**University Village, Plot 91, Cadastral Zone, NnamdiAzikiwe Express Way, Jabi, Abuja**

**FACULTY OF SCIENCES**

JULY 2017 EXAMINATION

**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