



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**University Village, 91 Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja**  
**FACULTY OF SCIENCES**  
**COMPUTER SCIENCE DEPARTMENT**  
**OCTOBER, 2019 EXAMINATIONS**

**COURSE CODE: CIT392**

**COURSE TITLE: COMPUTER LABORATORY II**

**CREDIT: 2 CREDIT UNITS**

**TIME ALLOWED: 2 HOURS**

**INSTRUCTION: ANSWER QUESTION ONE (1) AND ANY OTHER THREE (3) QUESTIONS**

- 1a) Briefly describe a constant in C++ programming language. Illustrate your answer with example(s). *(4 marks)*
- b) Outline the non-numeric data types in C++ *(4½ marks)*
- c) Define a Delimiter in Ada and state the different types. *(2½ marks)*
- d) State four (4) common features of COBOL *(2 marks)*
- e) Briefly describe the types of packages in Ada *(5 marks)*
- f) Write a short note on the concept of Shells in Linux *(3 marks)*
- g) Outline four (4) transactional control commands in database. *(4 marks)*
- 2a) Discuss in detail what you understand by a pointer in C++ *(5 marks)*
- b) There are different independent libraries for input/output operations in Ada. Describe any four (4) of them. *(10 marks)*
- 3a) Highlight in a tabular form (as specified in Table 1), the Windows XP commands that can be found in the applications menu. *(10 marks)*

**Table 1.**

S/N	Command	Function	Where it can be found/Location
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- b) Write a short note on the **SQL SELECT statement**. *(5 marks)*
- 4a) Ada supports three (3) different types of strings that are designed to solve different problems. Analyse them illustrating with examples where necessary. *(10½ marks)*
- b) Describe the three (3) constructors that can be used to create an instance of the FileInputStream class. *(4½ marks)*

5a) What are random access files in Java?

*(2 marks)*

b) Enumerate the constructors used in creating an instance of the RandomAccessFile class in Java.

*(2 marks)*

c) Outline four (4) methods of the RandomAccessFile class *(6 marks)*

d) Write a program in Java, using the WHILE loop to calculate the sum of the odd integers from 5 to 100.

*(5 marks)*