NATIONAL OPEN UNIVERSITY OF NIGERIA

University Village, Plot 91, Cadastral Zone,
Nnamdi Azikiwe Expressway, Jabi, Abuja

FACULTY OF SCIENCES
DEPARTMENT OF COMPUTER SCIENCE
2023_2 EXAMINATIONS_

COURSE CODE: CIT 411
COURSE TITLE: Microcomputers and Microprocessors
CREDIT UNITS: 2
TIME ALLOWED: 2 HOURS
Instructions: Answer Question 1 and any other three (3)

Q1a. What are the technological innovations of Microprocessors? (8 Marks)
b. How does Microprocessor uses Program Counter? (4 Marks)
c. Explain Digital Signal Processor (6 Marks)
d. Describe the work of arithmetic logic unit? (3 Marks)
e. How does computer performs subtraction? (2 Marks)
f. Mention four (4) components of 8085 Microprocessor (2 Marks)

Q2a. Discuss the basic blocks of Microcomputer (6 Marks)
b. With example, explain the concept of Two-Byte Instructions? (4 Marks)
c. Describe the Pentium Microprocessor (5 Marks)

Q3a. Describes the concept of Accumulator (3 Marks)
b. Discuss the Superscalar Microprocessor? (6 Marks)
c. With example, explain the concept of immediate addressing (6 Marks)

Q4a. Differentiate between LCALL and ACALL calling functions? (6 Marks)
b. What is hybrid input device (4 Marks)
c. Describe 8255 Peripheral Interface Controller (5 Marks)

Q5a. Briefly discuss the Intel 80286 Microprocessor (5 Marks)
b. With example, explain data transfer instructions (10 Marks)