



NATIONAL OPEN UNIVERSITY OF NIGERIA

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

FACULTY OF SCIENCES
DEPARTMENT OF COMPUTER SCIENCE
2021 EXAMINATIONS⁴⁵⁶⁷⁸

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)