



National Open University of Nigeria
Plot 91, Cadastral Zone, Nnamdi Asikiwe Expressway, Jabi – Abuja
Faculty of Sciences
Department of Computer Science
2020_2 Examination

COURSE CODE: CIT411

COURSE TITLE: Microcomputers and Microprocessors

CREDIT: 2 Units

TIME ALLOWED: 2 Hours

INSTRUCTION: Answer Question ONE (1) and Any other Three (3)

- Q1a. What is Microprocessor? (2 Marks)
- b. Explain any three (3) technological innovations of microprocessor (6 Marks)
- c. Explain any three (3) benefits of Assembly Language (6 Marks)
- d. Explain the concept of Direct addressing (2 Marks)
- e. What is Interrupt? (2 Marks)
- f. Mention any two (2) interrupts related problems (2 Marks)
- g. Describe the use of external memory (2 Marks)
- h. Mention three (3) components of microcomputer? (3 Marks)
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- Q2a. Describes the 8255 Peripheral Interface Controller technique (5 Marks)
- b. Explain the use of logical operators in assembly language? (4 Marks)
- c. Demonstrate the use of computers in society (6 Marks)
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- Q3a. Explain the concept of coprocessor trap (4 Marks)
- b. Differentiate between MOV and MOVX assembler directives (6 Marks)
- c. Write notes on any two (2) types of computer networking (5 Marks)
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- Q4a. Briefly discuss the history of microprocessor (5 Marks)
- b. Differentiate between addition and subtraction arithmetic operations (4 Marks)
- c. Describe the three (3) subcategories of computer architecture (6 Marks)
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- Q5a. Explain the term DMA (4 Marks)
- b. With example, prepare a table of one-byte instructions format (5 Marks)
- c. Differentiate between Intel microprocessors and Motorola microprocessors (6 Marks)