OLABISI ONABANJO UNIVERSITY, AGO IWOYE.

FACULTY OF SCIENCE
DEPARTMENT OF MATHEMATICAL SCIENCES

NAME OF EXAM: HARMATTAN SEMESTER, 2017/2018 SESSION
COURSE: COMPUTER ARCHITECTURE 1
COURSE CODE: CMP 303
COURSE UNIT: 2
INSTRUCTION: ANSWER ANY FOUR QUESTIONS
TIME ALLOWED: 2HOURS

Question 1:

a.   Define Computer Architecture in relation to hardware components
b.   What are the functions of control unit?
c.   What are the uses of interrupts?

Question 2:

a.   What is the need for reduced instruction chip?
b.   What do you understand by RISC and CISC ?
c.   Tabulate the differences between RISC and CISC

Question 3:

a.   List addressing mode we have and give example of each?
b.   Specify three types of data transfer techniques.
c.   What are the role of Instruction Register (IR) and Program Counter (PC)?

Question 4:

a.   What are the various units in the computer? What is an I/O channel?
b.   What is a Bus? Write short note each of the bus mentioned.
c.   Explain the following address instruction with example?
   • Three-address instruction
   • Two-address instruction
   • One-address instruction
   • Zero-address instruction

Question 5:

a.   Highlight the categories of computer architecture and write short note on each.
b.   Write short note on the types of Register in tabular form.

Question 6:

a.   Define instruction pipeline
b.   How addressing modes affect the instruction pipelining?
c.   What are the steps required for a pipelined processor to process the instruction?