
BITCA3111

COMPUTER ARCHITECTURE

MODULE DETAILS

Course Location	:	Swaziland
Examiner (s)	:	Mr. Ndumiso E. Khumalo
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Commence Date	:	Week 6
Submission Date	:	No submission required

1. What is an opcode? How many bits are needed to specify 32 distinct operations?

2. With the aid of well-labelled diagrams, explain the following
   a. Any three addressing modes.
   b. the elements of a machine instruction

3. With the aid of a well-labelled diagram, compare and contrast between direct and indirect addressing. Be sure to give one advantage and one disadvantage of each addressing mode.

4. Briefly describe any four instruction opcode categories. Provide an example for each category

5. State how the following operation could be accomplished with three instructions. Assume the variable X and Y correspond to memory locations 451 and 452, respectively.
   X = X + Y

6. Explain the use/function of following registers:
   a. PC
   b. MAR
   c. IR

…….. THE END …….