



KATHMANDU UNIVERSITY
End Semester Examination [C]
January, 2019

JAN 03 2019

Level : B.E./B. Sc.
Year : II
Time : 2 hrs. 30 mins.

Course : COMP 231
Semester: II
F. M. : 40

SECTION "B"

[6Q. × 4 = 24 marks]

Attempt *ANY SIX* questions.

1. What is Microprocessor? Mention Harvard Architecture. How this architecture is different than Von-Neumann Architecture? [1+2+1]
2. Explain functional block diagram of Intel 8086 microprocessor with figure.
3. Mention control and status signals of Intel 8085. Briefly describe addressing modes of 8086 microprocessor. [2+2]
4. What are the categories of instruction in microprocessor? Explain 8288 bus controller with diagram. [1+3]
5. Define Instruction Queue and Instruction Pointer. Describe pin diagram of 8254 programmable interval timer. [1+3]
6. What do you mean by Basic State Transitions? Explain bus transceiver 8286 with diagram. [1+3]
7. What do you mean by stack? Describe the use of PUSH R_p instruction. [1+3]

SECTION "C"

[2Q. × 8 = 16 marks]

Attempt *ANY TWO* questions.

8. What is machine cycle? Describe pin diagram of Intel 8086 in detail with the help of suitable diagram. [1+7]
9. What are the steps of events in 8259A? Explain its functional block diagram. [3+5]
10. Describe DMA transfer modes. Explain 8237 block diagram. What are 8237 registers? [2+4+2]

