CSC 208-2082(Old) ✡

Exam Roll No.....

Tribhuvan University
Institute of Science and Technology
2082
✡

Bachelor Level / Second Year/ Third Semester/ Science
Computer Science and Information Technology (CSC 208)
(Computer Architecture)
(OLD COURSE)

Full Marks: 60
Pass Marks: 24
Time: 3 hours.

Candidates are required to give their answers in their own words as for as practicable.
The figures in the margin indicate full marks.

Section A

Attempt any TWO questions. **(2 × 10 = 20)**

1. Explain the common bus system for basic computer with a suitable diagram. [10]
2. Describe parallel processing. Does pipelining support parallel processing? Explain with an example. What are its advantages? [2+5+3]
3. Perform multiplication of 30 and (-15) using Booth's multiplication algorithm. [10]

Section B

Attempt any EIGHT questions. **(8 × 5 = 40)**

4. Explain memory hierarchy in terms of its size and speed. [5]
5. Explain any one mode of data transfer to and from peripherals. [5]
6. List pipelining hazards and explain any two of them. [1+4]
7. Define microinstruction. Explain microinstruction format. [1+4]
8. Differentiate between instruction code and operation code. Explain instruction cycle of a basic computer. [2+3]
9. Explain different logic microoperations. [5]
10. Differentiate between RISC and CISC. [5]
11. How negative number is represented? Explain floating point representation. [2+3]
12. Write short notes on [2×2.5=5]
    a) Control timing signals
    b) Cache memory