CSc.162-2076

Tribhuvan University
Institute of Science and Technology
2076

Bachelor Level / First Year /Second Semester/Science
Computer Science and Information Technology (CSc 162)
(Microprocessor)
NEW 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.

Group A

Long answer questions:
Attempt any Two questions: (2x10=20)

1. Draw block diagram of 80386 and explain its functional units.
2. Describe the working mechanism of DMA. Draw the internal architecture of the 8237 DMAC along with a timing diagram illustrating the process of DMA transfers.
3. Write an assembly language program to find the greatest number in an array in using 8 bit microprocessor. (Assume appropriate array data and address where minimum array size of 20 should be considered.)

Group B

Short answer questions:
Attempt any Eight questions: (8x5=40)

4. Explain the addressing modes of 8086 microprocessor with examples.
5. Write an ALP for 8086 to read a string and print it in the reverse order.
6. Differentiate between PUSH and POP instruction with example illustrating the use of these instructions.
7. Write the process of address and data separation in De-multiplexed address/data bus in 8085 microprocessor.
8. What is CALL operation? How does it differ with JUMP operation?
9. Differentiate between synchronous and asynchronous serial communication. Show DTE-DTE and DTE-DCE connection according to RS-232 serial communication standard.
10. What is flag? Explain the flags that are present in 8085 microprocessor.
11. What is instruction set? Explain various kinds of instructions of 8086 microprocessor.
12. Write short notes on:
    a) Harvard architecture
    b) GDT and LDT

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