

DECEMBER 2006

2006 MAHARSHI DAYANAND UNIVERSITY
B.E IV SEMESTER REGULAR EXAMINATION
COMPUTER SCIENCE ENGINEERING
MICROPROCESSOR

TIME : 3 HOUR
MARK : 80

ANSWER ANY FIVE QUESTIONS ALL QUESTIONS CARRY EQUAL MARKS

- Q1. Discuss and Design microprocessor based traffic light system.
- Q2. Explain the following :-
- (a) Pipelining in Microprocessor 8086
 - (b) Synchronous and Asynchronous bus
 - (c) Applications of 8251 Interface Chip
 - (d) DMA Transfer
- Q3. (a) Define Stack, Stack Pointer and Program counter ? Explain with the help of one example ?
- (b) Block diagram of 8086 microprocessor
- Q4. (a) EXPLAIN 8085 interrupts
- (b) Specify Memory Location and its content after the following instructions are executed.
- ```
LDA 0
MVI B,8
MVI C,0
Loop: RLC
JNC skip
INR C
Skip: DCR B
JNZ Loop
MOV A,C
STA 1
HLT
```
- Q5. (a) Write an assembly language program to get the 2's complement of a 16-bit number.
- (b) Explain briefly following instructions : RIM, SIM, DI, EI, RST
- Q6. Explain different Modes of 8254 Programmable Interval timer.
- Q7. Write an assembly language program for Bubble Sorting. Explain each step with an example.
- Q8. Draw Pin Diagram & Block Diagram of 8259A Programmable Interrupt Controller.