

Code :R7320406

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III B.Tech II Semester(R07) Regular & Supplementary Examinations, April/May 2011
MICROPROCESSORS & INTERFACING

(Common to Electronics & Communication Engineering, Electronics & Instrumentation Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

1. (a) What is primary purpose of 8085 H-L pair Register with respect external memory list two of its functions.
(b) Explain briefly about addressing modes for accessing data in memory. (memory modes only)
2. (a) Explain different Arithmetic instructions you come across with respect to 8086.
(b) What is a delay loop. Write a small program and Calculate the delay involved.
3. (a) Distinguish between minimum mode and maximum mode of operation of 8086?
(b) Briefly explain the interfacing procedure of DMA chip of 8257.
4. (a) Briefly explain different modes of 8255 PPI?
(b) Explain the purpose of BIT/SET-REST facilities of port C of 8255.
5. (a) Explain briefly about interrupt structure and its importance.
(b) What is meant by cascading of interrupt controller and mention its importance.
6. (a) Why do you need serial Transfer and explain synchronous and Asynchronous transfer data formats.
(b) Explain the mode words of 8251 USART.
7. (a) Distinguish between CISC and RISC based process.
(b) Explain with timing diagram pipelined read timing of 80386.
8. (a) What is a interrupt and Explain interrupt structure of 8051.
(b) Explain different register sets of 8051.

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1. (a) What are the limitations of 8085 - Explain.
(b) What is an instruction. Explain about data Transfer instruction and input/output instruction.
2. (a) Briefly explain about maximum mode and minimum mode of operations.
(b) Briefly explain the format of jump instructions.
3. (a) What is meant by system clock and explain the importance of Timing diagram.
(b) Explain briefly about timing diagram and interfacing of EPROM.
4. (a) Explain how do you interface key board to 8255.
(b) Explain the importance of D-A and A-D converters and how do you interface A-D to the process 8086.
5. (a) Explain briefly DOS and BIOS interrupts.
(b) What is the difference between interrupt service sub routine and sub routine give some example to use interrupt sub routine.
6. (a) What is RS232 connects and explain pin function?
(b) What is USART? Explain its block diagram.
7. (a) What are Register structure of 80486 and explain memory addressing using selected and description.
(b) How memory is addressed in protected mode - Explain.
8. (a) Distinguish between microprocessor and micro controller and explain memory interfacing of memory of 8051.
(b) Explain the architecture of 8051 controller.

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1. (a) How do you interpret the data output by SIM instructions?
(b) Name five addressing modes and explain with examples.
2. (a) What is meant by CALL instruction? Distinguish between the branch and call instruction.
(b) Briefly explain about data Transfer instruction.
3. (a) Explain the need for DMA and explain the interrupt driver mode of DMA.
(b) What is a bus and explain the Read cycle timing diagram using a system clock.
4. (a) Explain briefly the interfacing of 8279 to 8086 processor.
(b) What is a stepper motor and step angle and Explain how do you interface stepper motor for the processor?
5. (a) What is an interrupt and explain the types of interrupt?
(b) Briefly explain the operation of interrupt controller.
6. (a) Explain the importance of synchronous and Asynchronous data transfer.
(b) Explain the architecture of 8251 USART.
7. (a) Explain the control register structure of 80386 and Explain what are debug and test Register.
(b) Explain briefly about branch prediction method.
8. (a) Distinguish between serial port and parallel port and explain their operation.
(b) What is meant by interfacing and explain The interrupt structure of 8051 controller?

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1. (a) Explain briefly about RIM instruction.
(b) Briefly explain about 8086 architecture.
2. (a) What is a flag register explain with example?
(b) Explain different conditional jump instruction and its condition tested.
3. (a) Briefly explain the interfacing of static RAM to 8086 with diagram.
(b) What is DMA and explain different data Transfer methods?
4. (a) What is the necessity for a display and how do you interface 7 segment display to 8255 PPI?
(b) Briefly explain the salient features of 8279.
5. (a) Explain vector interrupt table and interrupt service routine.
(b) Explain with block diagram 8259 interrupt controller.
6. (a) Explain different data Transfer schemes.
(b) What is USB port. Explain TTL to RS232 conversion?
7. (a) Explain briefly about Pentium burst like and also explain new instructions in Pentium.
(b) What are the differences between 80286 and 8086?
8. (a) What is meant by micro controller and Explain its architecture?
(b) What is a timer and its modes of operation.
