Paper Code: EC 503	Roll No.										

B.Tech.
(SEM V) ODD SEMESTER EXAMINATION 2015-16
MICROPROCESSOR

[Time: 3 hrs.] **[Max. Marks: 100]**

Note- ***Attempt All Questions. All Questions carry equal marks*:-**

1. Attempt any four parts of the following. [4x5]
   a) What do you understand by Memory-Mapped I/Oand Peripheral I/O?
   b) What are the low and high level languages? Also explain the difference between interpreter and a compiler.
   c) What do you understand by multiplexing of address and data buses?
   d) With relevant diagram,explain the role of timing and control unit in the operation of microprocessors.
   e) Define instruction cycle,machine cycle and T-State.
   f) Explain different control signals used by 8085.

2. Attempt any four parts of the following. [4x5]
   a) Draw and discuss a typical maximum mode 8086 system.
   b) Expalin the segment register and rules for memory segmentation in 8086.
   c) List the 8086 addressing modes and give an example of each mode.
   d) Define bus cycle, and explain the minimum mode write bus cycle with timing diagram.
   e) What do you undetstand by pipelining?
   f) Explain the usefulness of folloeing instructiobs in 8086 microprocessor:
      (i) LOCK (ii)XLAT (iii)TEST

3. Attempt any two parts of the following. [2x10]
   a) Explain the difference between recursive and re-entrant procedure with example.
   b) Write an assembly program to find out the number of even and odd numbers from a given series of 16-bit hexadecimal numbers.
   c) Explain all assembler directives,pseudo-ops and operators with suitable examples.

4. Attempt any two parts of the following. [2x10]
   a) What do you understsnd by DMA?Discuss the internal block diagram of 8237 DMA controller.
   b) Draw the block diagram of the 8255 and explain all I/O ports and their modes.
   c) Draw and discuss the internal architecture of 8253.

5. Attempt any two parts of the following. [2x10]
   a) Draw the block diagram of 8259.In 8259, list the sequence of events occurs when one or more interrupts lines go high.
   b) With the help of schematic, explain the memory interfacing to 8086.
   c) Write short notes on
      (i) Interrupt structure of 8086
      (ii)Serial communication standards