Code No: RT32041   (R13)   (SET - 1)

III B. Tech II Semester Supplementary Examinations, November/December – 2016
MICRO PROCESSORS AND MICRO CONTROLLERS
(Common to ECE, EIE and E.Comp.E)

Time: 3 hours   Maximum Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answering the question in **Part-A** is compulsory
3. Answer any **THREE** Questions from **Part-B**
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PART –A

1 a) Write about Waitt and Idle states.   [3M]

   b) Differentiate between static and dynamic RAMs.   [4M]

   c) Give the status register of 8251 and explain each bit.   [4M]

   d) What is cache maintenance?   [3M]

   e) Write the Features of ARM architecture.   [4M]

   f) Write the important features of 8257.   [4M]

PART –B

2 a) Briefly explain about the signal description of 8086 processor.   [8M]

   b) Discuss briefly about pre-fetch queue in 8086.   [8M]

3 a) Write an 8086 assembly program to convert a 16-bit binary into equivalent BCD.   [8M]

   b) Draw and discuss the interrupt vector table of 8086 microprocessor.   [8M]

4 a) With the help of basic cell, explain SRAM and DRAM. Discuss the advantage and dis-advantage of the memories.   [8M]

   b) Draw the block diagram of 8251 and explain about each block.   [8M]

5 a) Explain about different addressing modes supported by 80386 processor.   [8M]

   b) Write a short note on virtual 8086 mode.   [8M]

6   Draw and explain the internal architecture of 8051 microcontroller. Also list different applications of 8051.   [16M]

7 a) Explain about the memory organization of PIC microcontroller.   [8M]

   b) Briefly explain about the different types of interrupts handled by PIC 16C61/71 microcontroller   [8M]

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