www.aktuonline.com

Printed pages: 01 Sub Code: NEE504

Paper Id: 2 0 3 4 Roll No:

B TECH

(SEM V) THEORY EXAMINATION 2017-18

MICROPROCESSOR & ITS APPLICATIONS

Time: 3 Hours *Total Marks: 100*

Notes: *Attempt all Sections. Assume any missing data.*

SECTION -A

1. Attempt all question in brief: **(2x10=20)**
   a) Write about the basic difference between microprocessor and microcontroller.
   b) What are interfacing logical devices?
   c) Define following: (i)Nibble(ii)word
   d) Define following:(i) Mnemonics(ii)Program
   e) Write basic operations of microprocessor with block diagram.
   f) Write about different languages of digital computer.
   g) Define compiler or interpreter in programming languages.
   h) Explain different types of interrupts in 8085.
   i) Draw flag register of 8085.
   j) Write about types of addressing modes in 8086

SECTION -B

2. Attempt any **three** parts of the following: **(10x3=30)**
   a) Explain Minimum Mode operation of 8086 microprocessor with block diagram.
   b) Compare Procedure & Macros in assembler directives of 8086.
   c) Explain the following instructions of 8085 microprocessors
      a) POP PSW
      b) XTHL
      c) SPHL
      d) PUSH PSW
      e) CMP M
   d) Give the features and functional block diagram of 8237 DMA controller.
   e) Explain the internal architecture of 8255.

SECTION -C

3. Attempt any **one** parts of the following: (10**x1=10)**
   a) Explain evolution of microprocessor with its different generation. What do you mean by Addressing mode, explain Different addressing mode used in 8085 with suitable example.
   b) Draw architecture of 8086 explain its different unit. What do you mean by pipelining and explain the concept of memory segmentation.
4. Attempt any **one** parts of the following: (10**x1=10)**
   a) Explain assembler level programming and draw the flowchart of assembler level programming?
   b) Explain following:
      (i) 8259 Programmable interrupt controller.
      (ii) Development tools: Editor, Library builder, Linker, Emulator.
5. Attempt any **one** parts of the following: (**10x1=10)**
   a) Explain different MODES OF OPERATION of 8259.
   b) Explain minimum and maximum operating modes of 8086 with timing diagram
6. Attempt any **one** parts of the following: (10**x1=10)**
   a) Draw and explain block diagram and pin configuration of IC-8253.
   b) Write an assembly level program to find square root of given number
7. Attempt any **one** parts of the following: (**10x1=10)**
   a) Explain the interrupts sequence and types of interrupt in 8086.
   b) Draw explains the memory and I/O read cycle of 8085.

www.aktuonline.com

www.aktuonline.com