

**B.Tech. 5<sup>th</sup> Semester (F) Scheme (CS & IT)**

**Examination, December-2018**

**MICROPROCESSING & INTERFACING**

**Paper-EE-309-F**

*Time allowed : 3 hours]*

*[Maximum marks : 100*

*Note : Question No. 1 is compulsory. Attempt one question from each section.*

- 1. (a) What is BSR Mode? Discuss. 05
- (b) What do you mean by memory segmentation? 05
- (c) How the instructions NOP & HLT work? Explain. 05
- (d) Describe briefly the DMA process. 05

**SECTION-A**

- 2. (a) Explain the working of 8085 microprocessor with the help of block diagram and also explain about the function of each block. 10
- (b) Write an assembly level program for multiplication of two 8 bit numbers. 10
- 3. (a) How many addressing modes are there in 8085? Explain each with the help of suitable examples. 10
- (b) What do you mean by interrupts? How many types of interrupts are there in 8085? Explain each. 10

**SECTION-B**

- 4. (a) Explain the block diagram and pin diagram of 8086 microprocessor in detail. 14
- (b) What is pipelining? How it works? Explain. 06

- 5. (a) How many addressing modes are there in 8086 microprocessor? Explain each in detail. 10
- (b) What do you mean by Instruction format ? How many types of instructions format are being used in 8086 microprocessor? Explain. 10

**SECTION-C**

- 6. Explain the following:
  - (a) Data Transfer Instructions 06
  - (b) Shift and Rotate Instructions 07
  - (c) Branch Instructions 07
- 7. (a) What do you mean by directives? Describe the different types of directives used in 8086 micro processor. 10
- (b) Differentiate between the looping and branch instructions in detail with suitable examples. 10

**SECTION-D**

- 8. Explain the following in detail:
  - (a) Programmable Interval Time 10
  - (b) DMA Controller 10
- 9. What do you mean by PPI? Explain the following with the help of:
  - (a) Block Diagram and 10
  - (b) Pin Diagram 10