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**[5559]-188**

**S.E. (Computer Engg.) (Second Semester) EXAMINATION, 2019**

**MICROPROCESSOR AND INTERFACING TECHNIQUES**

**(2012 PATTERN)**

**Time : 2 Hours**

**Maximum Marks : 50**

**Note: (i) Answer total 4 questions: Q1 Or Q2, Q3 Or Q4, Q5 or Q6, Q7 or Q8**

**(ii) Support the answers with neat diagrams wherever necessary**

**(iii) Figures to the right indicate full marks**

- Q1. (a) State the difference between .COM and .EXE [2]  
(b) Explain the terminologies – [4]  
(i) Assembler (ii) Macroprocessor  
(c) Draw architecture diagram of 8259 and explain it. [6]

OR

- Q2. (a) State the difference between near and far procedure [2]  
(b) What is an ISR? Explain how it is invoked. [4]  
(c) Explain the addressing modes of 80386 [6]  
(i) Immediate, (ii) Direct, (iii) Base

- Q3. (a) Draw and explain the command word for 8255. [4]  
(b) Explain the DMA operation steps. [4]  
(c) Explain the difference between synchronous and asynchronous communication. [4]

P.T.O.

OR

Q4. (a) For what reasons 8279 is used? Explain the difference between polled mode and interrupt mode. [4]

(b) Draw and explain the working of 8253 with timing diagram in mode 2. [4]

(c) What is Resolution in analog to digital convertor? Explain with example. [4]

Q5. (a) Explain use of latches and clock generator (supporting chips) in the operation of 8086. [6]

(b) Explain with block diagram Maximum mode of 8086 [7]

OR

Q6. (a) Draw timing diagram for read cycle in minimum mode for 8086. [6]

(c) Draw and explain the interface between 8086 and 8087. [7]

Q7. (a) Discuss the salient features of i5. [5]

(b) Explain the block diagram of X58 chipset. [8]

OR

Q8. (a) Draw and explain the diagram of i5 motherboard [8]

(b) Explain the following terms in 82801 – Quiet System Technology [2]

(c) Explain QPI? [3]