

Total No. of Questions—8]

[Total No. of Printed Pages—3

Seat No.	
-------------	--

**[5252]-168**

**S.E. (Computer Engineering) (Second Semester)**

**EXAMINATION, 2017**

**MICROPROCESSORS AND INTERFACING TECHNIQUES**

**(2012 PATTERN)**

**Time : 2 Hours**

**Maximum Marks : 50**

**N.B. :—** (i) Answer total question Nos. 1 or 2, 3 or 4, 5 or 6, 7 or 8.

(ii) Neat diagrams must be drawn whenever necessary.

(iii) Figures to the right indicate full marks.

1. (a) What do you mean by Bus Sizing ? Draw the Memory Read. Write cycle timing diagrams for 16 or 32 bit microprocessor. [8]
- (b) What do you mean by Directive ? Give directive which is related to allocation of storage for one or more values ? (minimum 6 directives) [4]

*Or*

2. (a) What is DOS ? Explain any *two* internal and *two* external DOS commands. [4]
- (b) Compare .COM and .EXE File. [4]
- (c) Explain the concept of TSR with figure. [4]

P.T.O.

3. (a) Give difference between synchronous and asynchronous communication. [4]  
(b) Draw block diagram for 8251A (VSART) and explain. [5]  
(c) Define sensors and transducer. Give *one* example of each. [3]

*Or*

4. (a) Explain any *two* operating modes of 8253/8254. [6]  
(b) Why DMA controlled data transfer are preferred over interrupt driven or program controlled and explain the use of HRQ and EOP signals ? [3]  
(c) What is the difference between *n* key rollover and 2 key lock out in 8279 ? [3]
5. (a) Explain and discuss interface between 8086 and 8087. [6]  
(b) Draw and explain timing diagram for read operation of 8086 in minimum mode. [7]

*Or*

6. (a) Explain the instruction related to 8087 : [6]  
(i) FSTP  
(ii) FICON  
(iii) FLDZ  
(iv) FIST.  
(b) Define the following terms : [3]  
(i) Accuracy  
(ii) Monotonocity  
(iii) Offset error.  
(c) Explain use of 8282 and 8284. [4]

7. (a) List and explain the features of Intel X58 chipset. [7]  
(b) What is the purpose of 82801JR I/O controller Hub ? List of features of same. [4]  
(c) Draw basic blocks of Intel X58 chipset. [2]

Or

8. (a) Explain the basic components of i5 processor with block diagram. [7]  
(b) Explain the following components of 82801 JR I/O controller Hub : [6]  
(i) Direct Media Interface  
(ii) Serial peripheral Interface  
(iii) Quiet System Technology.

CEGP010441  
115.254.24.169 18/11/2017 09:28:47

CEGP010441  
115.254.24.169 18/11/2017 09:28:47

CEGP010441  
115.254.24.169 18/11/2017 09:28:47