Total No. of Questions—**8**] [Total No. of Printed Pages—**3**

Seat No.	

[5352]-177

S.E. (Information Technology) (II Sem.) EXAMINATION, 2018
PROCESSOR ARCHITECTURE AND INTERFACING
(2012 PATTERN)

Time : Two Hours **Maximum Marks : 50**

N.B. :— (*i*) Answer Q. No. **1** or Q. No. **2**, Q. No. **3** or Q. No. **4**, Q. No. **5** or Q. No. **6**, Q. No. **7** or Q. No. **8**.
(*ii*) Neat diagrams must be drawn wherever necessary.
(*iii*) Figures to the right indicate full marks.
(*iv*) Assume suitable data if necessary.

1. (*a*) What is the purpose of assembler directives ? Explain the following assembler directives used in 80386 programming :
(*i*) DW
(*ii*) MACRO
(*iii*) EXTRN [6]

(*b*) Differentiate between the steps performed by processor when near and far procedure call occurs. [6]

Or

2. (*a*) Explain how pipelined processing improves performance of the system as compared to non-pipelined processing of 80386. [6]

(*b*) Draw and explain EFlag register of 80386 processor. [6]

P.T.O.

3. (*a*) Explain the paging mechanism implemented in 80386 and how the protection features are achieved. [6]

(*b*) What is Multitasking ? How is it achieved in 80386 processor ? [6]

Or

4. (*a*) Explain the working of confirming code segment in 80386 processor. [6]

(*b*) What is dual core processor ? Give the differences between single core and dual core processor. [6]

5. (*a*) Explain function of the following pins of 8051 micro-controller : [6]

(*i*) ALE

(*ii*) INT0

(*b*) Draw and explain memory organisation of 8051 micro-controller. [7]

Or

6. (*a*) Explain the following instructions of 8051 microcontroller : [6]

(*i*) ANL C, bit

(*ii*) RRC A

(*iii*) MOVX A, @DPTR

(*b*) Write a program to continuously send out to port 0 of 8051 the alternating values of 55H and AAH. [7]

7. (*a*) Explain PCON and TCON registers of 8051 micro-controller. [6]

(*b*) State and explain SFR's related to serial communication in 8051 microcontroller. [7]

Or

8. (*a*) Draw and explain the Mode 0 and Mode 1 of timer in 8051 microcontroller. [7]

(*b*) Explain the interrupt programming with the help of IE and IP SFR in 8051 microcontroller. [6]