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Seat No.	
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[4757]-1082

S.E. (IT) (First Semester) EXAMINATION, 2015

COMPUTER ORGANISATION

(2012 COURSE)

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) With suitable diagram explain in brief Von Neumann
Architecture. [6]

(b) Explain in brief functions of the following pins of 8086 : [6]

(i) ALE

(ii) $\overline{\text{RD}}$

(iii) $\text{MN}/\overline{\text{MX}}$.

P.T.O.

Or

2. (a) Draw flow chart and explain Booth's Algorithm for two's complement multiplication. [6]
(b) Draw neat diagram of internal architecture of 8086 and explain any *one* block. [6]
3. (a) What are interrupts ? Explain interrupts of 8086. [6]
(b) Explain with suitable diagram multiple bus organization of CPU. [7]

Or

4. (a) What is segmentation ? List segment registers of 8086 and explain its use in brief. [6]
(b) Explain with suitable diagram hardwired control method for design of control unit. [7]
5. (a) Explain direct mapping technique used in Cache memory. [6]
(b) What is TLB ? Explain its use with suitable diagram. [6]

Or

6. (a) List the different types of internal memory explain any *two* in brief. [6]
(b) Write a short note on optical memories. [6]

7. (a) Draw block diagram of 8255 PPI and explain it. [7]
(b) What is DMA ? Explain with neat diagram. [6]

Or

8. (a) Compare serial V/s parallel I/O. Explain features of serial I/O USART 8251. [7]
(b) List various bus standards interfaces. Explain any *one* in detail with suitable diagram. [6]