Q.P. Code :13083

[Time: Three Hours] **[Marks:80]**

Please check whether you have got the right question paper.

N.B:
1. Question no 1 is compulsory.
2. Attempt any three questions from remaining five questions.
3. Assume suitable data if required
4. Draw neat diagram wherever necessary.

Q.1 Solve any four 20

A. List different memory organization characteristics.

B. What is IO buffering?

C. In floating point representation how to identify sign of exponent?

D. What is virtual memory?

E. What is TLB?

Q.2 A. I) Draw the flow chart for Booth's Algorithm for two's complement multiplication. 4

II) Using Booth's algorithm Multiply 14 times -5. 6

B. Describe hard-wire control unit and specify its advantages. 10

Q.3 A. Compare interrupt driven I/O and DMA 10

B. Calculate the hit and miss using various page replacement policies LRU, OPT, FIFO for following sequence (page frame size 3) 4,7,3,0,1,7,3,8,5,4,5,3,4,7,534 state which one is best for above example? 10

Q.4 A. Explain set associative and associative cache mapping techniques 10

B. Explain Flynn's classification 10

Q.5 A. Explain six stage instruction pipeline with suitable diagram. 10

B. Differentiate between I. RISC and CISC II. SRAM and DRAM 10

Q.6 A. Explain different pipe lining hazards 10

B. Explain in brief cache coherency problem 10
