

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) 4,7,3,0,1,7,3,8,5,4,5,3,4,7,5,3,4 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