9218/A25 **OCTOBER 2009**

COMPUTER ORGANISATION

Time : Three hours Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1. What are interrupts? Explain.

2. Explain subroutines?

3. What is an instruction format?

4. What are data manipulation instructions?

5. Explain overlapped register window.

6. Explain synchronous data transfer.

7. What is a control memory? Explain.

8. Explain microprogram sequencer.

9. What is a hit ratio? Explain.

10. What do you mean by page replacement algorithm?

PART B — (4 × 10 = 40 marks)

Answer any FOUR questions.

11. Explain the design of control unit.

12. Write an ALP for sorting n numbers.

13. Draw and explain general register CPU organization.

14. Explain instruction cycle using an example.

15. Explain the purpose of an interface with peripherals?

16. Explain the design of RAM and ROM chips.

PART C — (2 × 15 = 30 marks)

Answer any TWO questions.

17. Discuss in detail the various addressing modes?

18. Draw and explain DMA.

19. What is a virtual memory? Discuss in detail the mapping procedure involved?