

SECTION-A

1. (a) How Shift and Logical micro operations are used ? Explain the role of registers. 8
(b) What is the need of Computer Instructions ? Explain. 7
2. What is the role of timing signals in instruction cycle ? Explain the different phases of Instruction cycle. 15

SECTION-B

3. Explain the following concepts :
(a) RISC characteristics 7.5
(b) Direct and Indirect addressing modes. 7.5
4. Discuss the characteristics of the following :
(a) Hardwired Control unit design 7.5
(b) General register CPU design. 7.5

SECTION-C

5. Write notes on the following :
(a) Associative memory 7.5
(b) Virtual memory. 7.5
6. (a) What is the concept of memory organisation ? Explain. 7.5
(b) Discuss the working of Cache memory in detail. 7.5

SECTION-D

7. (a) How I/O processor works as an interface ? Explain in detail. 8
- (b) Discuss the working of DMA for data transfer operations. 7
8. (a) Explain the uses of pipeline Processing. 7.5
- (b) How SIMD and MIMD architectures are organised ? Explain. 7.5