Note: Attempt five questions in all by selecting at least two questions each from the Section A and B. Section C is compulsory.

SECTION—A

1. Distinguish between RISC and CISC architectures. Discuss their advantages and disadvantages. Give some examples of RISC and CISC processor.

2. Explain in detail the various error-correcting codes.

3. Define Cache Memory. What are the various memory mapping procedures involving cache memory? Explain.

4. What do you mean by Program Interrupt? Discuss various types of Interrupts with suitable examples.
5. Explain in detail the various arithmetic Micro-operations with examples.

6. Briefly discuss the following concepts:
   (a) Control Memory.
   (b) Address Sequencing.
   (c) Micro-programmed Control.

7. What is Input-output Interface? Briefly discuss and compare the following I/O schemes:
   (a) Programmed I/O
   (b) Interrupt initiated I/O.

8. What do you mean by Asynchronous Data transfer? What are the methods of achieving asynchronous data transfer? Explain.

SECTION—C

9. Write short note on the following:
   (i) CPU organisation.
   (ii) Instruction-level Parallelism.
   (iii) Types of addressing modes.
   (iv) Arithmetic logic shift unit.
   (v) DMA.