



12. (a) Draw the diagram of a carry look ahead adder and explain the carry look-ahead principle. (16)

Or

- (b) Describe in detail booth's multiplication algorithms and its hardware implementation. (16)
13. (a) Explain the different type of hazards that can occur in a pipeline. (16)

Or

- (b) What are superscalar processors? Explain the typical structure of a typical superscalar processor? (16)
14. (a) Draw the neat sketch of memory hierarchy and explain the need of cache memory. (16)

Or

- (b) Explain the organization of magnetic disk in detail. (16)
15. (a) Explain the difference between CISC and RISC processors. (16)

Or

- (b) Explain the DMA mode of data transfer. (16)
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