PES UNIVERSITY

Department of Computer Science & Engineering
Microprocessor & Computer Architecture

UNIT 3 Notes

Memory Hierarchy

Class #	Topics to be Covered	Chapter Title / Reference Literature
1.	Introduction to Memory Subsystem, Bottle neck, Memory Hierarchy Introduction to Cache, Locality of reference and Cache Design Philosophy	**Appendix B.1, B.2, B.3** **Computer Architecture A Quantitative Approach (5th edition)** **Hennessy Patterson, MK Morgan Kaufmann** And **Anchor PPT**
2.	Cache Design Philosophy Continued: Block Placement, Block Identification, Block Replacement, Read / Write issues with cache	
3.	Direct Map Cache Memory	
4.	Set Associative Cache Memory	
5.	Fully Associative Cache Memory	
6.	Page Replacement Algorithms	
7.	Read / Write Policy	
8.	Performance Analysis	
9.	Cache Optimization	