Time: 30 minutes

ID:

Total mark: 15

Name:

1.	During TLB search, the associative lookup time (ϵ) is 8ns and hit ratio (α) is 75%. For each time memory access, 200ns is needed. Calculate the effective access time. [3]
2.	How does TLB help to shorten the effective memory access time? Explain briefly. [2]

3. At a particular time, the snapshot of the Main memory is given below for **dynamic** partitioning where **gray portions of the memory represent occupied spaces**. Apply worst fit and first fit algorithms to place processes with the space requirement of P1=45K, P2=600K, P3=255K, P4=85K and P5=145K (in order). Explain which algorithm makes the most effective use of memory. [10]

300K 55K 675K 500K 230K
