**GANPAT UNIVERSITY**

**U.V.PATEL COLLEGE OF ENGINEERING**

**2CEIT401: OPERATING SYSTEMS**

**SECOND INTERNAL EXAM SYLLABUS – APRIL- 2023**

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| **Sr. No** | **Chapter Name** | **Topic** |
| 1 | **Inter process Communication:** | * Race Conditions, * Critical Section, * Mutual Exclusion, * Software solutions - Peterson’s Solution, * Hardware Solution, * Semaphores, * Monitors , * Classical IPC Problems: Reader’s & Writer Problem, Dining Philosopher Problem,The Producer Consumer Problem , Sleeping barber problem. |
| 2 | **Deadlock:** | * What is a deadlock? * Deadlock Characterization. * RAG(Resource allocation graph) * Deadlock Prevention. * Deadlock Avoidance |
| 3 | **Memory Management** | * **Paging** - Address translation scheme, architecture, Examples, Free Frames - Examples, Page table - Implementation, Associative Memory - TLB, Effective access Time, Examples, Memory protection, Page table structure * **Segmentation-**Architecture, Address translation, segmentation with paging * Virtual Memory & Page replacements Algorithms |