Chandigarh Engineering College, Landran

Department of Electronics and Communication Engineering

Assignment No. 2

Subject and Subject code: Operating System (BTCS-402-18) **Semester:** 3rd year/ 6th semester Date on which assignment given: 19-04-2024 Total Marks:10

Date of submission of assignment 26-04-2024

Course Outcomes

| CO1: | Explain basic operating system concepts such as overall architecture, system calls, user mode and kernel mode. | | | | |
|------|--|--|--|--|--|
| CO2: | Distinguish concepts related to processes, threads, process scheduling, race conditions and critical sections. | | | | |
| CO3: | Analyze and apply CPU scheduling algorithms, deadlock detection and prevention algorithms. | | | | |
| CO4: | Examine and categorize various memory management techniques like caching, paging, segmentation, virtual memory, and thrashing. | | | | |
| CO5: | Design and implement file management system. | | | | |
| CO6: | Appraise high-level operating systems concepts such as file systems, disk-scheduling algorithms and various file systems. | | | | |

Bloom's Taxonomy Levels

| L1- Remembering, L2- Understanding, | L3- Applying, | L4-Analyzing, | L5- Evaluating, | L6- Creating |
|-------------------------------------|---------------|---------------|-----------------|--------------|
|-------------------------------------|---------------|---------------|-----------------|--------------|

| Assignment related to COs | | Marks Distribution | Relevance to CO No. | Blooms Level |
|---------------------------|---|-----------------------|---------------------|-----------------|
| _ | What are the various allocation methods in File Management? | 2 | CO5 | L1 |
| Q2. | Explain about the disk scheduling algorithms. | 2 | CO6 | L5 |
| _ | Justify the difference between Internal and External Fragmentation. | 2 | CO4 | L4 |
| _ | Describe free space management in operating system. | 2 | CO5 | L2 |
| | Demonstrate any two Page replacement algorithms with suitable examples. | 2 | CO4 | L3 |