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| **Total Marks:** | **10** |

**Operating Systems**

**Assignment # 02(Section-A)**

**Last date of Submission: 13-01- 2025**

**Instructor Name: Ms. Laraib Razzaq**

**Instruction**

Assignment should be in **hand written form** and not be copy paste.

**a.** A system uses a paging scheme with a page size of 4 KB. A program requires 50 KB of memory. How many pages will be allocated, and how much internal fragmentation will result? (5)  
**b.** Given a segment table for a process: (5)

| **Segment** | **Base Address** | **Limit** |
| --- | --- | --- |
| 0 | 1000 | 400 |
| 1 | 1400 | 800 |
| 2 | 2000 | 500 |

Calculate the physical address of all segments for the following logical addresses (if valid) and also give the reason if not valid.

* (S0-> 200)
* (S1-> 900)
* (S2-> 600)