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| EE463  Operating System Lab.  King Abdulaziz University  Faculty of Engineering - ECE |  | **Lab. #8**  **\_\_ / 10** |

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| **Name: Faisal Abushanab** | **Id:1945603** |

**Solution**

**Simulator:** pagetrans.py

**Command: ./pagetrans.py -a 16k -p 1k -r 64k -s 102**

**Solution:**

Virtual Address Trace

|  |  |
| --- | --- |
| VA 0x00002ae6 (decimal: 10982) → | **Invalid** **[VPN= 10]** |
| VA 0x00000fc5 (decimal: 4037) → | **Invalid [VPN= 3]** |
| VA 0x000005e3 (decimal: 1507) → | **0x4903 [VPN= 1]** |
| VA 0x0000154f (decimal: 5455) → | **RA Invalid [VPN= 5]** |
| VA 0x00002c02 (decimal: 11266) → | **0x2c02 [VPN= 11]** |

**Simulator:** pagetablesize.py

**Command: python ./pagetablesize.py -v 20 -e 1 -p 8k**

**Solution:**

Virtual Address (VA) = [Virtual Page Number (VPN) | Offset (D)]

|  |  |  |  |
| --- | --- | --- | --- |
| **VA (bits)** | **VPN (bits)** | **D (bits)** | **pte (byte)** |
| **20** | **7** | **13** | **1** |

Calculate (Linear Page Table Size) and write the results in the simplest readable form (e.g. byte, KB, MB, GB, and TB)

**Linear Page Table Size = 128 byte**