**NUST SCHOOL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE**

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| **Faculty Member:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **Dated: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| **Semester:\_\_\_\_\_\_\_\_\_\_\_\_\_** | **Section: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |

**EE- 222: Microprocessor Systems**

**Lab # 4: Writing Assembly Programs**

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| **Name** | **Reg. No.** | **Report Marks / 10** | **Viva Marks / 5** | **Total/15** |
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**Objective:**

Write an assembly program that adds the following two 16-bit images

(Each pixel/element is of 16-bits) and displays the resultant memory values on the screen. Use appropriate addressing scheme.

**[10 marks]**

**Jump Instruction:**

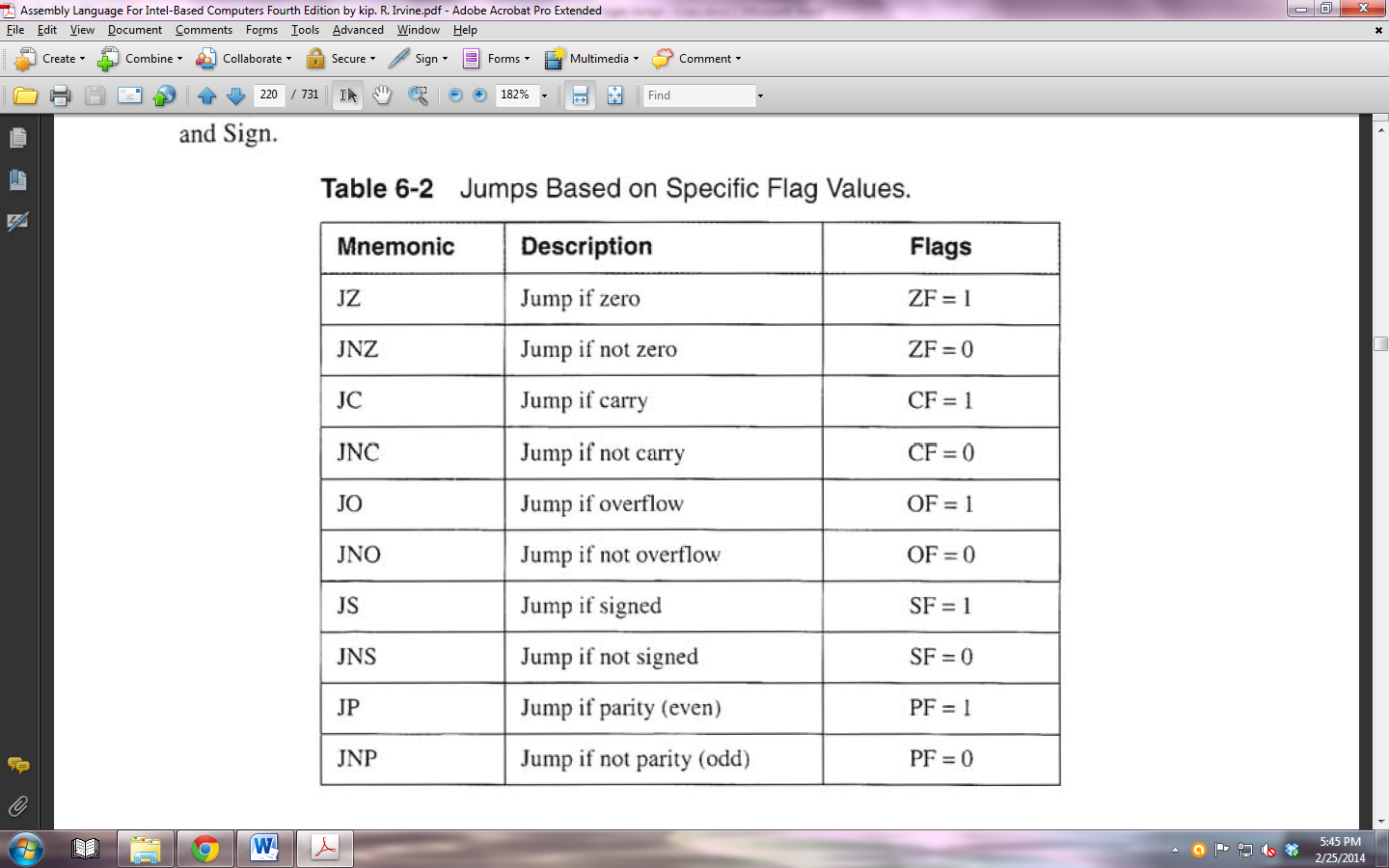
A conditional jump instruction branches to a destination label when a flag condition is true.

*Jcond destination*

Or

*Jmp destination*

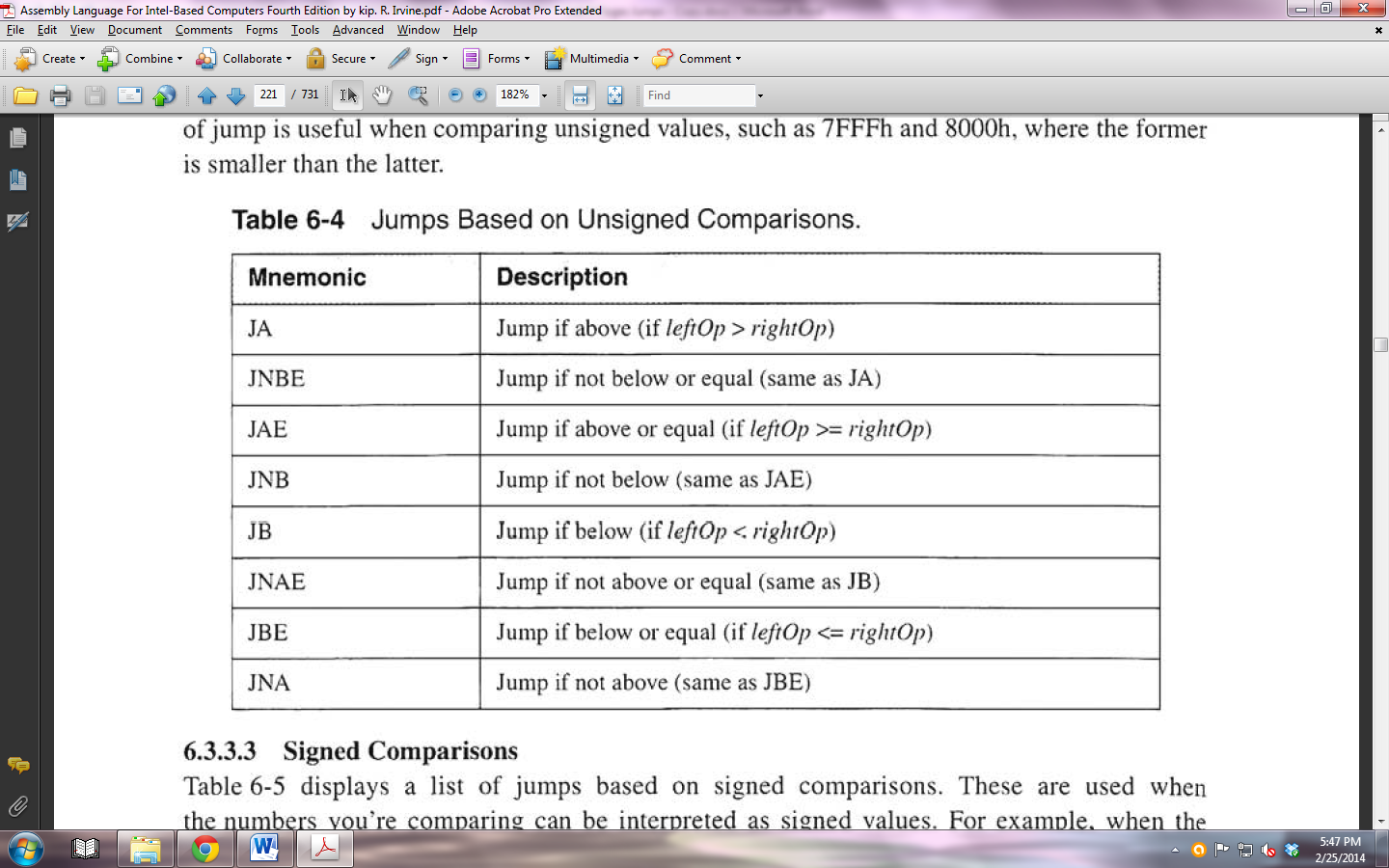
**Jumps Based on Specific Flag Values.**



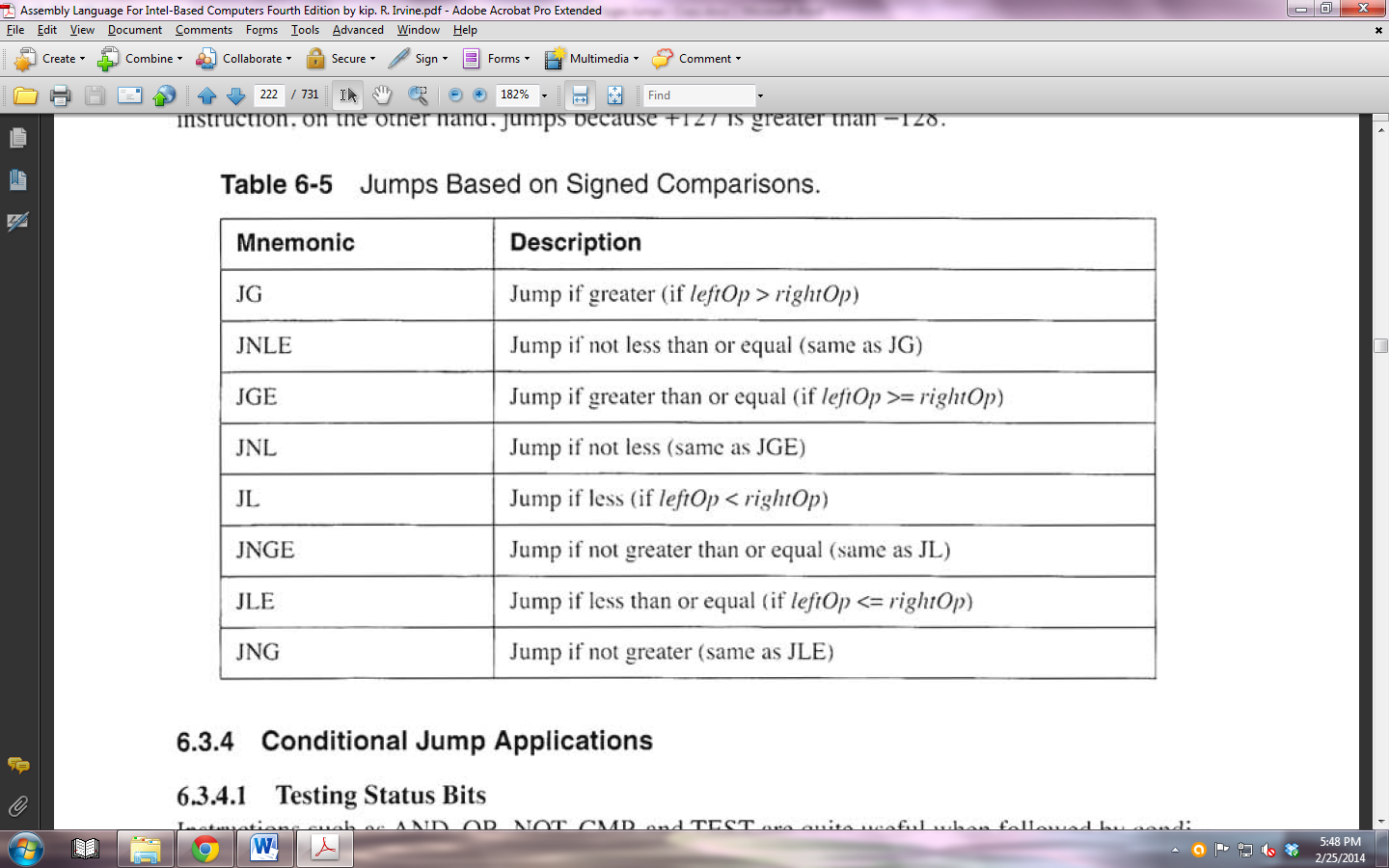
**Equality Comparisons**

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**Unsigned Comparisons**

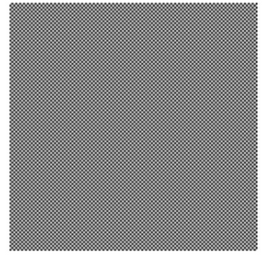


**Signed Comparisons**

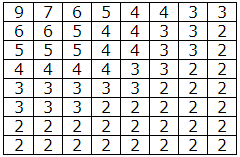
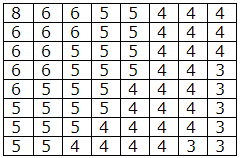


***Image A***

***Image B***





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