

**Benha University**

**Faculty of Engineering \_Shoubra**

**Surveying Engineering Department**

**Fourth Year**

**Year: 2017/2018**

**Semester: One**

**Remote Sensing and Photo Interpretation**

**Assignment No: 5**

**Image Enhancement**

1. What is meant by Image Contrast?
2. Types of Stretching image histograms.
3. Define the following terms:
4. Filters.
5. Moving average filter.
6. High Pass Filters (HPF).
7. Low Pass Filters (LPF).
8. Edge detectors.
9. Convolved image.
10. Apply Moving Average Filter and Sobel operator to the window given in table below. Show the obtained results in each case.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| C1 | C2 | C3 | C4 | C5 |  |
| 9 | 13 | 5 | 10 | 13 | R1 |
| 12 | 17 | 12 | 9 | 8 | R2 |
| 11 | 24 | 10 | 8 | 11 | R3 |
| 9 | 15 | 13 | 15 | 14 | R4 |
| 12 | 18 | 17 | 20 | 19 | R5 |

1. Discuss the spatial filtering techniques used to enhance the acquired satellite images.