Answer Keys: Introduction to EARDAS IMAGINE

(50 points in total; Due date: Mar. 19, 2010 by 11 AM)

*Question 1*: Use the information provided in README to fill the following table:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Satellite name: | Landsate 5 | Sensor name: | TM | Path #: | 16 |
| Rows #: | 31 | Acquisition date: | 2002/8/4 | # of Image Bands: | 7 |

*Question 2:* What is the **Data Type** for this image? (1 points)

Unsigned 8 bit

*Question 3:* What is the **Pixel Size** in the X and Y direction? (2 points)

30 30

*Question 4*: What are the **Units** of measurement? (1 point)

Meters

*Question 5*: What is the image **georeferenced** to? (3 points)

Projection: UTM, zone 18 Spheroid: WGS 84 Datum: WGS 84

*Question 6*: What are the **Max** and **Min** digital values indicated in the **Statistics Info?** (2 points)

255 0

*Question 7*: Name these spectral bands and specify the bandwidth for each: (24 points)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Bands | Name of Bands | Bandwidth/  Wavelength Range | Radiometric Resolution | Spatial Resolution |
| Band 1 | TM1 / Blue | 0.45 – 0.52 | 8-bit | 30m |
| Band 2 | TM 2 / Green | 0.52 – 0.60 |
| Band 3 | TM 3 / Red | 0.63 – 0.69 |
| Band 4 | TM 4 / NIR | 0.76 – 0.90 |
| Band 5 | TM 5 / MIR | 1.55 – 1.75 |
| Band 7 | TM 7 / MIR | 2.08 – 2.35 |

*Question 8*: What are the **Max** and **Min** digital values for the **green**, **red**, and **NIR** bands? (6 points)

|  |  |  |  |
| --- | --- | --- | --- |
| **Bands** | **Green** | **Red** | **NIR** |
| **Max** | 255 | 255 | 255 |
| **Min** | 0 | 0 | 0 |

*Question 9*: Print out your Elmira image. (5 points)

See next page.

Elmira_Image.tiff