FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF PHYSICAL SCIENCES
DEPARTMENT OF GEOGRAPHY
SECOND SEMESTER 2019/2020 SESSION UNDERGRADUATE EXAMINATION

COURSE CODE: GRY 342 **COURSE UNITS:** 3

COURSE TITLE: Fundamentals of Digital Image Processing

INSTRUCTIONS: Answer questions **one** and any other two. Credit will be given for the use of specific examples and relevant illustrations. **Use Pencil in question 1**

TIME ALLOWED: 2:30Minutes

1. a). What are then different types of image storage format

b). Represent the pixel values in figure 1a in a 7x7 image size. Show how it will be organized in the **all the image storage formats** using sample format in figure **1b**

''start

5	3	4	5	4	5	5	5	5	4	6	7	7	7	2	2	3	4	4	4	6	2	4
6	5	5	6	5	2	2	3	3	6	6	8	5	3	5	7	6	6	8	2	2	6	6
6	7	0																				

''end

Figure 1a

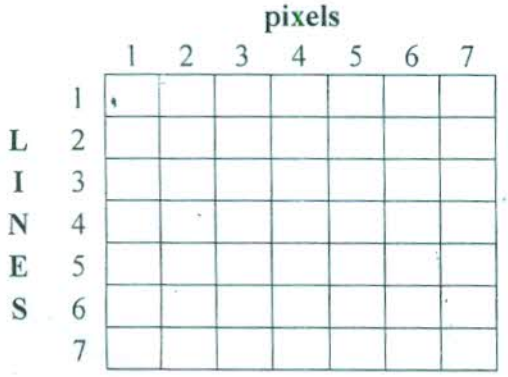

Figure 1b sample format

2. Discuss the steps involved in digital image processing of Quickbird Satellite imagery of FUT Minna, Bosso Campus

3. a. What is digital Image?

   b. Discuss the factors governing the quality of an Image

4. Expatiate on any **three** of the following:

   a. Principal Components Analysis (PCA)

   b. Contrast Stretching

   c. Histogram Equalisation

   d. Spatial Filtering

   e. Hue Saturation and Intensity (HSI)

5. Classification techniques are of different types. Distinguish