## FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

## DEPARTMENT OF GEOGRAPHY

## SECOND SEMESTER EXAMINATION 2009/2010 SESSION

## COURSE TITLE: DIGITAL IMAGE PROCESSING; COURSE CODE: REM 324P; COURSE UNIT: 3

INSTRUCTIONS: ANSWER ANY 3 QUESTIONS. CREDIT WILL BE GIVEN FOR RELEVANT AND WELL ILLUSTRATED DIAGRAMS AND EXAMPLES

- (1) (a) Discuss the importance of digital image processing
  - (b) Distinguish between a grey scale and a false colour composite
  - (c) How is a false colour composite different from a true colour composite?
- (2) (a) What is image enhancement?
  - (b) How relevant are image histograms to image enhancement procedures?
  - (c) Discuss the following enhancement techniques:
    - (i) Histogram Equalize
    - (ii) Gaussian Stretech
- (3) (a) Explain filtering techniques
  - (b) Distinguish between high pass and low pass filters
- (4) (a) Explain pseudocolour enhancement
  - (b) Examine the difference between peudocolour enhancement and density slicing
  - (c) Distinguish between density slicing and false colour composite
- (5) (a) Distinguish between visual image interpretation and digital image processing
  - (b) How is a classified image produced for visual interpretation?