

THE FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI
SCHOOL OF AGRICULTURE AND AGRICULTURAL TECHNOLOGY
DEPARTMENT OF FORESTRY AND WILDLIFE TECHNOLOGY

COURSE TITLE: FOREST AND LAND SURVEY

COURSE CODE: FWT 304, **UNIT:** 2, **SEMESTER:** RAIN, **DATE:** 31/10/2019

TIME ALLOWED: 2½ HRS

INSTRUCTION: Section A is compulsory. Answer one question each from section B, C and D

SECTION A

1. (a) As a forester, you have been invited by your community to talk on the topic "The Role of Forest Survey in Sustainable Management of our forest" what will you tell them. (6 marks)
- (b) Identify the significant figures when decimals are used in survey
 - (i) 0.000047..... 1 mark
 - (ii) 0.0100470 1 mark
 - (iii) 0.1000470 1 mark
 - (iv) 2.0100470 1 mark
 - (v) Identify this symbol in land survey..... 2 marks



- (c) (i) Differentiate between the term photogrammetry and photo interpretation. (2 marks)
- (ii) Define spectrum (1 mark)
- (iii) List and define the basic concept of remote sensing (2½ marks)

SECTION B

2. Briefly explain the methodology of forest survey (6marks)
- 2b. Enumerate the major activities in forest survey (4½ marks)
- 2c. State seven (7) objectives of forest survey. (7 marks)
3. Explain in detail Protection and Production Forest. (4 marks)
- 3b. Mention four (4) basic differences between Protection and Production Forests. (8 marks)
- 3c. From your practical work, mention at least ten (10) tree species available in JWI botanical garden. (5½ marks)

SECTION C

- 1a. List several reasons why aerial photographs are widely used in forest survey. (6 marks)
- 4b. There are a number of factors that influence the aerial photographic task. List and discuss (9 mks)
- 4c. Write short note on types of direction of exposure in aerial photography. (2½ marks)
- 5a. What are some of the general uses of aerial photography in forestry? (4 marks)
- 5b. List the eight pictorial elements largely concerned with virtual image interpretation and discuss any four. (8 marks)
- 5c. What happen when EMR falls on a surface? (5½ marks)

SECTION D

- 6a. Mention 10 Basic surveying instruments. (10 marks)
- 6b. What is a field equipment and mention the contents of standard field tools box (5 marks)
- 6c. Mention the different types of surveying tapes. (1½marks)
- 6d. Mention 3 kinds of marking materials in land survey. (1 mark)
- 7a. Write short NOTES on the following: (i) Coordinates (ii) Datum (iii) Meridian (iv) Precision (12 marks)
- 7b. What is the meaning of the following terms in land and forest survey? (i) LOA (ii) PWD (iii) ASCF (iv) ARC (v) D/R (5½ marks)