

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

COURSE TITLE: FOREST ECONOMICS AND MANAGEMENT
COURSE CODE: FWT 503. UNIT: 2. SEMESTER: HARMATTAN. DATE:
TIME ALLOWED: 2HRS 30 MINS

Chinn

INSTRUCTION: Answer FOUR Questions only. TWO from each Section.

SECTION A

1. The management of wood based company decided to windup its company with the under listed assets after five years of operation. Using a declining balance of depreciation at 10%. What is the net worth of the assets at the period of closing down? (17½ marks)

S/No	Title	Amount (₦)
1	Building Cost	2,500,000.00
2	Multiple-rip saw Machine	4,500,000.00
3	Cross-cutting Machine	500,000.00
4	Trimming Machine	500,000.00
5	Sharpening Machine	100,000.00
6	Binding Machine	300,000.00
7	Swage	50,000.00
8	Hand-binding Machine	20,000.00
9	Generator (Lister) 130kv	5,000,000.00
10	Electricity Installation	150,000.00
11	Bore hole drilling	350,000.00

Handwritten calculations:
 7 000 000.00 }
 1 000 000.00 }
 4 000 000.00 } 4 700 000
 7 0000 .. }
 5 150 000 }
 3 500 000.00 } 55 000 000
 13 970 000

2. A saw mill industry wants to establish a vertical wood processing factory for wood export. If he is to borrow money from bank at interest rate of 20 %, the projected income statement shows cost in year 1 – 5 as ₦ 35,656,950.00, ₦ 22,280,895.00, ₦ 24,208,264.50, ₦ 26,358,442.95 ₦ 28,750,703.10 and revenue for year 1 – 5 as ₦ 26,769,000.00, ₦ 29,445,900.00, ₦ 32,390,490.00, ₦ 35,629,539.00, ₦ 39,192,492.00 respectively. As a forest economist, evaluate the present value of benefit (revenue), the present value of cost, Net Present Value (NPV) and Benefit Cost Ratio at end of the five year, to encourage and persuade the business man to join the train of value addition to wood processing for sustainable development. (17½ marks)
3. Ugochukwu industry is a wood exporting company that processed sawnwood into furniture parts for export. In processing 1 m³ of furniture parts the company incurs a cost of ₦ 49,656.33 and revenue of ₦ 81, 000.00 determine the rate of return on investment for the mill doing further processing of sawn wood and carry out a Sensitivity analysis of Rate of Return on investment on furniture parts of 1 m³ with (i) Increasing cost of production from +10 % to +35 % at an interval of 5 % and (ii) Decreasing revenue from -10 % to -35 % at interval of 5 %. Explain/discuss your results if the company is paying an interest of 25 % on borrowed money invested in the business. (17½ marks)

SECTION B

4. (a) What is the importance of pricing in Forest Economics and Management? (10 marks)
 (b) How does pricing affect the supply of forest goods and services? (7½ marks)
5. (a) Examine Forest Management as a practice and as a course of study. (12 marks)
 (b) What is the objective of Forest Management? (5½ marks)
6. (a) What is site quality to a forest manager? (11½ marks)
 (b) Briefly discuss the attribute of a normal forest. (6 marks)

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Handwritten formula: $(\frac{1}{1+r})^n \times Cr - Cr$