



UNIVERSITY OF EDUCATION, WINNEBA

DEPARTMENT OF CONSTRUCTION AND WOOD TECHNOLOGY EDUCATION

BACHELOR OF SCIENCE WOOD TECHNOLOGY EDUCATION

END OF SECOND SEMESTER EXAMINATION 2018/ 2019 (MAY, 2019)

CANDIDATE'S INDEX NUMBER.....

PAPER CODE	WTE 123
PAPER TITLE	WOOD BIODEGRADATION, DRYING AND PRESERVATION
DURATION	2HR 30MINS
LECTURERS	PROF. CHARLES ANTWI-BOASIAKO
INSTRUCTIONS	Answer ALL Questions ON THE QUESTION PAPER. DON'T TAKE ANY MATERIAL OUTSIDE THE EXAMS HALL

1. a) Explain the term "Wood Deterioration" [1 mark]

- b) Discuss the 3 importance of diseases to wood and wood products (3 marks).

- c) Differentiate between:
 - i. TYPE I and TYPE II soft-rot decay [4 marks]

 - ii. Simultaneous and Preferential white-rot decay [4 marks].

(d) Complete the following in the Table below:

Decay parameters and causative organisms	White rot	Soft rot	Brown-rot
Wood colour after decay.			
Wood texture after decay.			
Wood structural materials being attacked.			
Species of causative fungi.			

(12 marks)

e) Discuss the damages caused to wood by termites [4 marks].

f) Give any 10 Control measures of termites [10 marks]

SECTION B: WOOD DRYING/SEASONING

a. Define the following (14 marks):

- i. Wood drying :**
- ii. Free water:**
- iii. Moisture content of wood:**
- iv. Fibre saturation point**
- v. Equilibrium moisture content**
- vi. Wood Shrinkage**
- vii. Refractory Wood**

b. Give 5 advantages of drying timber (10 marks).

c. Give any 5 Reasons for splits and cracks during timber drying (5 marks).

d. Simply explain the processes that take place in wood kiln drying (10 marks)

e. Give 3 advantages of kiln drying over air drying (3 marks).

SECTION C: WOOD PRESERVATION

3 (a). Give seven (5) reasons why non-durable woods have to be chemically-treated [10 marks].

(b) List any (five) 5 means of treating wood under the Non-Pressure [5 marks].

c. Describe the processes that take place in “Bethel Method” of wood treatment with a DIAGRAM [5 marks].

C. ANTWI-BOASIAKO