

**FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI**  
**SCHOOL OF ENGINEERING AND ENGINEERING TECHNOLOGY**  
**DEPARTMENT OF POLYMER AND TEXTILE ENGINEERING**

2019/2020 HARMATTAN SEMESTER EXAMINATION  
PTE 523: PULP AND PAPER TECHNOLOGY    DATE: 12/02/2021  
INSTRUCTION: ANSWER ANY FIVE (5) QUESTIONS.    TIME 2.30 h

- ✓ Q1. (a) Discuss briefly the chemistry of wood.  
(b) Define the term wood and explain any three (3) applications of wood.  
(c) State the difference between the two classes of wood.
- Q2. (a) Explain briefly the properties that determine the choice of applications of wood pulp  
(b) Outline other sources of promising non-woody species as alternative fiber source
- ✓ Q3. (a) What are the processes involved in paper manufacture?  
(b) State the steps involved in wood preparation for pulping and paper making processes.
- ✓ Q4. (a) Identify the adhesive systems employed in wood products production.  
(b) Describe the procedure of producing adhesive from wood dust using gum Arabic  
(c) What are the finishing processes involved in paper production?
- Q5. (a) Briefly discuss the physical properties of wood adherand.  
(b) Explain the interlocking action in wood bonding
- Q6. (a) Discuss the phenomenon of wetting in relation to wood bonding.  
(b) List and explain the forces associated in wood adhesive bonding.