

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF TECHNOLOGY EDUCATION
DEPARTMENT OF INDUSTRIAL AND TECHNOLOGY EDUCATION
2012/2013 SECOND SEMESTER EXAMINATION

COURSE CODE: ITE323

COURSE TITLE: MATERIAL TECHNOLOGY II

UNIT: 2, **TIME:** 2HRS

INSTRUCTION: Answer all 2 questions from section 'A' and any 2 questions from section 'B'

SECTION A

- 1 i. Copper contain no iron True-False
- ii. Steel contain no iron True-False
- iii. Magnetic is the property that do not distinguish between ferrous and non-ferrous metal True-False
- iv. All ferrous metal rust when exposed to moisture True-False
- v. All ferrous metal are not magnetic True-False
- vi. Machine parts are made from ferrous True-False
- vii. Metal present good finishing e.g. Jewelries True-False
- viii. Non-ferrous metals are conductors of electricity True-False
- ix. Brass is combination of 3 metals True-False
- x. Duralumin is used for making Air craft parts, car engine and boat engine parts True-False
- 2 i. The property of metal to resist penetration or indentation by other metals is called:
 - a. Strength b. Plasticity c. hardness d. elasticity e. toughness
 - ii. Which of the following is not heat treatment processes of metal ?
 - a. Hardening b. tempering c. annealing d. soaking e. case-hardening
 - iii. Wood has a structure and nature that can be regarded as:
 - a. Micro and glucose structure b. macro and glucose structure c. micro and micro structure d. micro and micro structure e. glucose and cellulose structure
 - iv. Trees grow in thickness in concentric layers that are called ----- annually:
 - a. spring wood b. growing season c. stronger season d. growth rings e. wood spring
 - v. Which of the following is not among properties of wood: a. Durability b. colours c. texture d. scent e. malleability

SECTION B

- 3 a. List FIVE (5) major materials technology that can be used for our daily application
- b. List THREE (3) major classes of materials.
- c. Define the term material technology
- 4 a. Briefly explain the following terminology i. air seasoning and ii. kiln seasoning
- b. List any SIX (6) properties of plastics briefly explain any THREE (3) listed
- c. List and explain TWO (2) types of plastics.
- 5 a. What do you understand by Glass ?
 - b. What are the properties of glass. List and explain any THREE (2)
 - c. What is the relationship between glass and building as today
- 6 a. Define ceramics
 - b. Briefly explain any FIVE (5) ceramics product.
 - c. what do we use ceramics in our modern homes. List any FIVE (5) commonly use of ceramics in our houses.