

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
INDUSTRIAL AND TECHNOLOGY EDUCATION DEPARTMENT
SECOND SEMESTER EXAMINATION 2018 / 2019 SESSION

Material Technology ITE 323

Attempt all questions. Time Allowed: Two Hours

MATRIC NO. _____ OPTION _____ LEVEL _____

Section A (Objectives)

1. Which of the following non-metal is good conductor of electricity?
a). Graphite, b). Phosphorus, c). Hydrogen, d). Bromine
2. Sapwood consists of ?
a). Innermost annular rings around pith, b). Portion of timber between heartwood and cambium layer, c). Thin layers below bark, d). Thin fibre which extends from the pith outwards and holds the annular rings together.
3. Admixture are chemicals that are added to _____ to enhance its properties.
4. The two types of tests that can be carried out on timber to obtain information regarding timber properties are _____ and _____
5. Which of the following gradients exerts maximum influence on properties of steel?
a). Iron, b). Carbon, c). Manganese, d). Sulphur
6. The production of concrete is basically done in _____ operations. a).10, b).6, c).4, d).7
7. The appearance Characteristics of timber includes _____ and _____
8. The ability of metals to be drawn into thin wire is known as?
a). Ductility, b). Malleability, c). Sonority, d). Conductivity
9. The trunk of tree left after cutting all the branches is known as?
a). Log, b). Batten, c). Plank, d). Baulk
10. Concrete in a composite material consisting of _____, _____ and _____
11. Nonmetals combine with oxygen to form _____ oxides.
12. The process of spreading water on harden concrete to improve its strength is _____
13. The best conductors of electricity are _____ and _____
14. The age of a tree can be known by examining?
a). Cambium layer, b). Annular rings, c). Medullary rays, d). Heart wood
15. _____ of timber refers to the ease or difficulty of nailing, carving and gluing.
16. The inclusion of _____ in concrete makes it to become _____

Section B (Theory)

Each material should not exceed 1 ½ pages

Human beings cannot comfortably exist in his environment without these materials; **Metals, Concrete and Timber**. Justify this assertion in these sectors; Mechanical /manufacturing, Electrical/electronics, Construction/infrastructure, Automobile and others.