

(90)

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA.

SCHOOL OF ENVIRONMENTAL TECHNOLOGY,

DEPARTMENT OF ARCHITECTURE

FIRST SEMESTER EXAMINATION, 2019/2020 SESSION.

COURSE CODE: ARC. 413

COURSE TITLE: CONSTRUCTION TECHNOLOGY IV

LECTURER: ARC. S. AHMED

LEVEL : 400 LEVEL ARCHITECTURE

HOD: DR. P. AYUBA

TIME : 2 HOURS

INSTRUCTION: Candidates are expected to attempt THREE (3) questions in all

Neat sketches and clarity of expression attract more marks.

QUESTION 1.

With the aid of sketches only, describe the construction of the following floor systems

- (i) Waffle Grid concrete floor
- (ii) Pre-stressed concrete planks floor

20 marks

QUESTION 2

(a) With the aid of sketches only, describe the construction of Pre-cast reinforced Lightweight concrete slab floor systems

- (b) (i) Explain Intumescent in the control of fire spread
- (ii) How are Intumescent materials used to control fire?

20 marks

QUESTION 3

(a) Illustrate with sketches only, the construction of Pre-cast Hollow Reinforced concrete slab floor systems.

- (b) Outline and explain the factors which may affect fire severity in buildings

20marks

QUESTION 4

- (a) (i) Explain briefly the active and passive precautionary measures in fire protection
- (ii) As an architect, how can the fire resistance of a building element be evaluated?
- (b) Outline and explain in detail the fire safety measures one could provide in building

20 marks

Good luck

TOTAL = 60 MARKS