

(160)

Federal University of Technology Minna
School of Environmental Technology
Department of Architecture
Second Semester Examination 2017/2018

Course Title: Elements of Architecture

Course Code: ARC 241

Credit Units: 3

Lecturer: A. M. Sani

H.O.D.: Dr. P. Ayuba

Time allowed 2½ hours

Instructions: *Question number 5 is compulsory. Answer three (3) in all. Each question carries equal marks. Neat drawings attract marks.*

1. A, Expatriate on the term “graphic communication” in the context of Architecture / Engineering? **5 marks**

b. Illustrate and explain the following types of lines and their application: (I) Thick continuous lines (ii). Thin continuous lines (iii). Thin double lines with waves (IV). Thin chain lines with two dots (v) Thin Chain lines **10 marks**

c, Elucidate with illustration your understanding of the following: (i) Two-dimensional drawing (ii), Three-dimensional drawing **5marks** **Totalling 20 Marks**

2. a. State the types and sizes of paper used in Architectural drawings (**10 marks**).

b. Expatriate on the biggest step towards the domain knowledge of CAD in Architecture. (**3 marks**)

c. Enumerate 4 (four) features of CAD that are relevant to Architectural practice (**4 marks**)

d. Highlight the basic methods of depicting perspective drawing **3marks, (Totalling 20 Marks)**

3. a. Elaborate on the phrase Architecture determinant as it relates to Architectural practice (**9 marks**)

b. what is dimension? List dimension types known to you. (**5 marks**)

c. Discuss the following: (i) Floor plan (ii) section (iii) Headroom (iv) Sectional Types (**6mark**) **(Totalling 20 Marks)**

4.a. Draw the architectural plan symbol for the following doors and windows: (i) Roller shutter door (ii) Single swing door (iii) casement window (**6 marks**)

b. illustrate the following building symbols on a single sketch: (i) oversite concrete (ii) hard-core (iii) compacted backfill (iv) foundation footing and foundation base (v) Super structural walls (**10 marks**)

c. Elaborate on two architectural requirement of any building (**4 marks**), **(Totalling 20 Marks)**

5. Reproduce the working drawing overleaf by projecting the under listed plans;

a. Ground Floor plan (**10 marks**) (b). Roof plan (**2 marks**) (c). Section C-C (**6 marks**). (d). Elevation – Approach Elevation. (**2 marks**) all in scale 1:50mm. **(Totalling 20 Marks)**

Good luck