

P720/3

BUILDING DRAWING THEORY

Paper 3

Jul/Aug 2019

2 Hours



MUKONO EXAMINATION COUNCIL

Uganda Advanced Certificate of Education

BUILDING DRAWING THEORY

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2 Hours

INSTRUCTIONS TO CANDIDATES

- *The question paper consists of **six** questions.*
- *Attempt any **four** questions.*
- *All questions carry equal marks.*
- *Use of sketches will earn you more marks.*
- *Any additional question(s) answered will not be marked.*

1. a) Define the term iron monger as applied to building construction. **(01 mark)**
b) Describe the following iron monger **(04 marks)**
 (i) Nails
 (ii) Screws
 (iii) Bolts
 (iv) Hinges
c) With sketches, show the following types of hinges and mention where each one is suitably used.
 (i) Tee hing **(03 marks)**
 (ii) But hing **(03 marks)**
d) (i) Mention any three means of vertical transportation apart from stairs. **(03 marks)**
 (ii) With the aid of sketches illustrate the construction of a timber stair for one complete flight. **(11 marks)**
2. a) State;
 (i) three functions of foundation **(03 marks)**
 (ii) three functional requirements of a foundation. **(03 marks)**
b) (i) Explain three ways of improving the bearing capacity of a subsoil. **(06 marks)**
 (ii) Explain what the term Bearing capacity means in building construction. **(01 mark)**
c) (i) Give three reasons why concrete is used in the construction of foundations. **(03 marks)**
 (ii) In sequence describe five steps of forming a concrete strip foundation. **(05 marks)**
d) With sketches show a formwork which is suitable for casting the concrete in c(i) above. **(04 marks)**
3. a) Define the term building finish as applied to building construction. **(01 mark)**
b) Give;
 (i) three functions a wall finish. **(03 marks)**
 (ii) three functional requirements of a floor finish. **(03 marks)**
c) (i) mention two tools each used in the following process.
 - plastering **(02 marks)**
 - painting **(02 marks)**
 (ii) Explain how an old dirty timber piece can be painted. **(03 marks)**
d) describe the following types of floor finishes and explain where each is suitably applied.
 (i) Terazo floor finish **(05 marks)**
 (ii) Timber strip floor finish **(03 marks)**
 (iii) Ceramic clay floor tiles. **(03 marks)**

4. a) (i) Explain the term bonding. **(02 marks)**
 (ii) Give one purpose of bonding. **(01 mark)**
 b) (i) Name and draw four tools commonly used in the construction of walls. **(08 marks)**
 (ii) Give one reason why bricks are soaked in water they are used in construction. **(01 mark)**
 c) With the aid of sketches, describe the following types of bonds and state where each is suitably used.
- (i) Stretcher bond **(03 marks)**
 (ii) Header bond **(04 marks)**
 (iii) English bond **(03 marks)**
 (iv) Flemish bond **(03 marks)**
5. a) (i) What is a roof covering as applied to roofs. **(01 mark)**
 (ii) State two functions of a roof covering. **(02 marks)**
 b) (i) Apart from iron sheets, mention any other three types of roofing materials. **(03 marks)**
 (ii) Describe how any two of the roofing material in b(i) above is manufactured. **(06 marks)**
 c) Describe with the aid of sketched how corrugated galvanized iron sheets are fixed on a couple close single roof. **(07 marks)**
 d) (i) Give three advantages of using galvanized iron sheets over other types of roof covering. **(03 marks)**
 (ii) Explain three disadvantages of using galvanized iron sheets. **(03 marks)**
6. a) Define the term wall. **(01 mark)**
 b) (i) State any four functional requirements of a wall. **(04 marks)**
 (ii) Give any five function of a wall. **(05 marks)**
 c) (i) Differentiation between load bearing walls and non-load bearing. **(02 marks)**
 (ii) Give one example of each of the walls mentioned in c(i) above. **(02 marks)**
 d) With sketches, show the following types of walls and state where each is used.
- (i) short parapet wall **(03 marks)**
 (ii) Timber stud partition wall **(04 marks)**
 (iii) Party wall **(03 marks)**
 e) What is a cavity wall. **(01 mark)**

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