

FOR CANDIDATES IN GHANA ONLY.

*Answer **four** questions **only**: question 1 and any other **three** questions.*

Credit will be given for clarity of expression and orderly presentation of material.

1. Figure 1 shows a section through a domestic building. The internal wall surfaces of the rooms are plastered. Use it to answer Question 1.

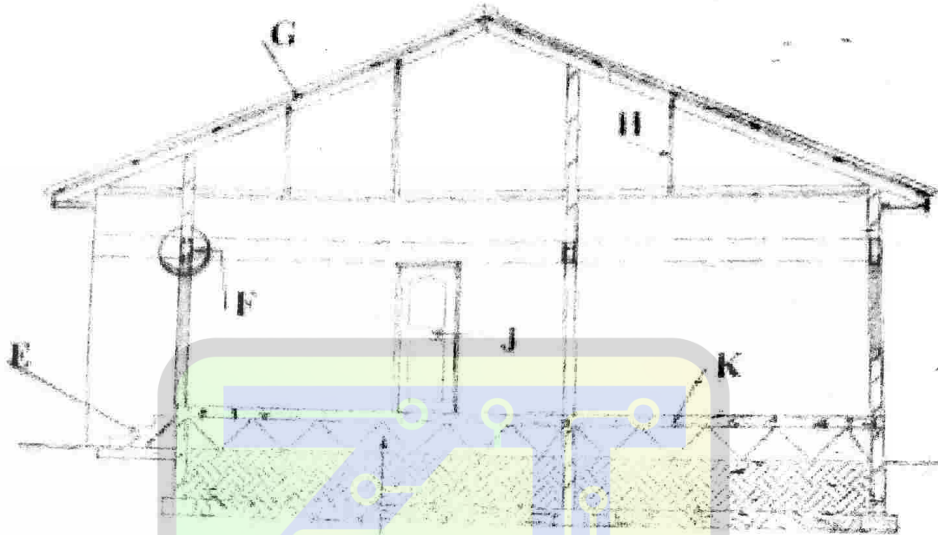


Figure 1

- (a) (i) Identify the elements labelled E, F, G and H. [4 marks]
 (ii) State **one** function of **each** of the elements labelled E, K, and L. [9 marks]
- (b) Sketch the constructional detail at F and label the following parts:
 (i) main bar;
 (ii) concrete cover;
 (iii) stirrups. [9 marks]
- (c) State **three** functional requirements of element J. [6 marks]
- (d) Sketch to illustrate a method of preventing rising moisture from the ground to the surface of element K and label the following parts:
 (i) ground floor slab;
 (ii) damp proof membrane;
 (iii) damp proof course
 (iv) external wall;
 (v) hardcore filling. [12 marks]

[12 marks]

2. (a) Explain the following site operations:
- (i) clearing the site;
 - (ii) levelling the site.
- [6 marks]
- (b) List **six** members of a timbering system used to support the sides of a trench during excavation.
- [6 marks]
- (c) (i) List **four** types of foundation used for the construction of buildings.
- [4 marks]
- (ii) State **two** desirable qualities of a concrete foundation.
- [4 marks]

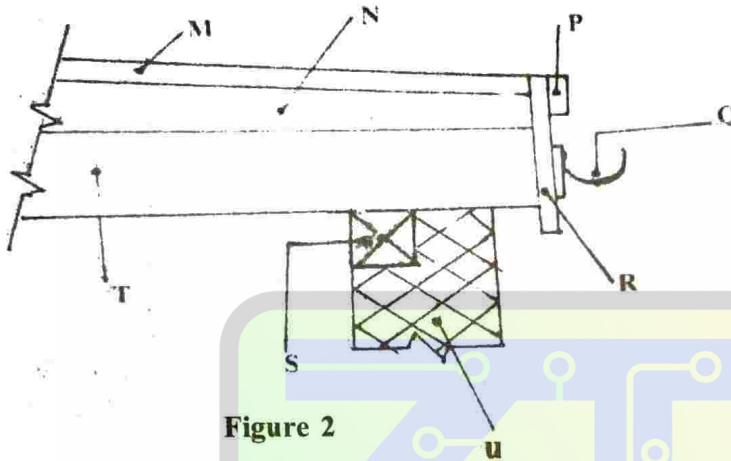


Figure 2

3. (a) Identify the parts of the sketch of timber flat roof construction labelled M, N, P, Q, R, S, T, and U shown in Figure 2.
- [8 marks]
- (b) State **one** use of **each** of the following:
- (i) floor plan;
 - (ii) sectional drawing;
 - (iii) elevational drawing.
- [6 marks]
- (c) State **one** purpose of **each** of the following elements in a window opening:
- (i) reinforced concrete lintel;
 - (ii) wooden frame;
 - (iii) casement stay.
- [6 marks]
4. (a) State **five** factors to be considered when selecting a sanitary appliance for use in a domestic building.
- [10 marks]
- (b) State **two** desirable qualities of a screeded floor finish in a domestic building.
- [4 marks]
- (c) State **three** reasons for the provision of electricity to a building site.
- [6 marks]
5. (a) State **four** characteristics of hardened concrete.
- [8 marks]
- (b) Use a pictorial sketch, to show the arrangement of the *standard*, *base plate* and *sole plate* at the foot of an erected dependent scaffold and label the **three** parts.
- [9 marks]
- (c) List **three** hand tools used for rendering the surface of a sandcrate block wall.
- [3 marks]

Turn over

6. (a) List **six** roof covering materials.

[6 marks]

(b) State **three** functional requirements of a stairway.

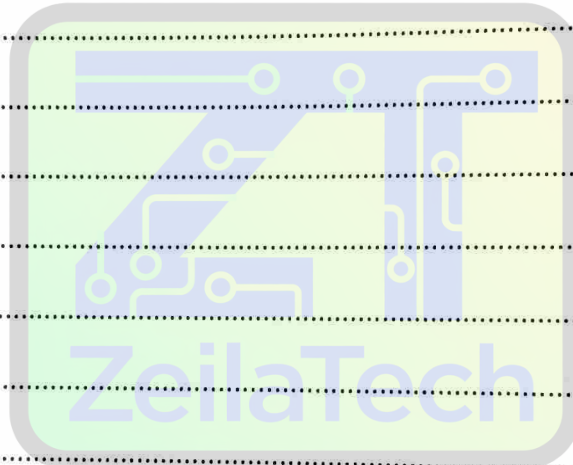
[8 marks]

(c) State **four** functional requirements of an external wall of a domestic building.

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Question Number:.....



Smart Learning Tools