

1301/313

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**SITE AND WORK MANAGEMENT**

June/July 2016

Time: 3 hours



**THE KENYA NATIONAL EXAMINATIONS COUNCIL**

**CRAFT CERTIFICATE IN CARPENTRY AND JOINERY**

**CRAFT CERTIFICATE IN MASONRY**

**CRAFT CERTIFICATE IN PLUMBING**

**SITE AND WORKSHOP MANAGEMENT**

**3 hours**

**INSTRUCTIONS TO CANDIDATES**

*You should have the following for this examination:*

*Scientific calculator;*

*Answer booklet.*

*Answer FIVE of the following EIGHT questions.*

*All questions carry equal marks.*

*Maximum marks for each part of a question are as shown.*

*Candidates should answer the questions in English.*

**This paper consists of 4 printed pages.**

**Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.**

1. (a) State;
- (i) **four** essential requirements of a good workshop. (8 marks)
  - (ii) **four** factors to consider when selecting a site for a workshop. (3 marks)
- (b) State **three** local authorities requirements before establishing a workshop. (9 marks)
- (c) Outline **three** factors to consider when designing a masonry workshop. (3 marks)
2. (a) Briefly describe the duties of the following site personnel in material procurement:
- (i) site supervisor; *He oversees the work* ✓
  - (ii) procurement officer; ✓
  - (iii) storekeeper. ✓
- (b) Explain the following documents as used in procurement:
- (i) advise note; ✓
  - (ii) delivery note; ✓
  - (iii) invoice. ✓
- (c) Sketch a sample of delivery note.
- Delivery note

Part of goods	Date
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3. (a) Explain how the following materials are stored on site:
- (i) roofing files; ✓
  - (ii) cement in 50 kg bags; *Stored in covered platform to avoid absorption of moisture.* ✓
  - (iii) iron mongery. ✓
- (b) Describe the function of materials schedule on site. ✓
- (c) Explain the purpose of site inventory. ✓
- (d) List six preliminary items on construction site. ✓
- (e) State three purposes of (3d) above. ✓
4. (a) State six factors to be considered in a site layout. ✓
- Health & safety*
  - Economy*
  - Accessibility*
  - Access to transport*
  - Utilities*
  - Security*
- (b) Explain how 'piforage' can be reduced on construction site. ✓

(c) Using the site plan given in **Figure 1**. Draw a site layout plan, showing the best position of the following:

- (i) sand;
- (ii) ballast;
- (iii) security;
- (iv) technical staff offices;
- (v) concrete mixer;
- (vi) store;
- (vii) sign board;
- (viii) foundation stores;
- (ix) access road.

(12 marks)

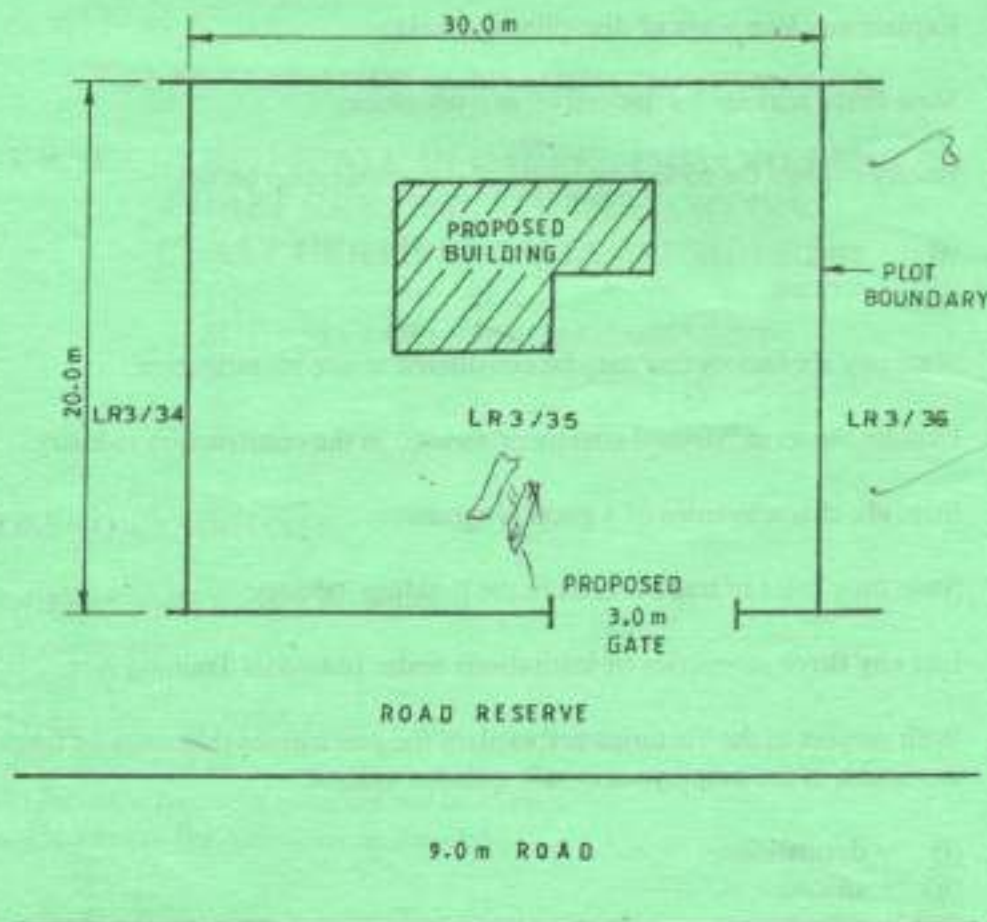


Fig. 1

5. (a) List **three** sources of finance for buying construction plant. 55 (1 1/2 marks)

(b) State any **two** roles of each of the following parties in a contract:

- (i) client;
- (ii) architect;
- (iii) quantity surveyor;
- (iv) local authority.

56  
8  
64 1/2

(8 marks)

- (c) Briefly describe the following contract:
- (i) cost reimbursement; L1  $64\frac{1}{2}$
- (ii) package deal; *Includes on client & contractor*  $\frac{1}{68\frac{1}{2}}$
- (iii) item rate.  $68$  (9 marks)
- (d) List **three** types of tendering methods. ALY (1  $\frac{1}{2}$  marks)
6. (a) Explain the following structure of an organization:
- (i) line organization;
- (ii) line and staff organization. (6 marks)
- (b) Explain any **two** ways of disciplining workers. (6 marks)
- (c) State **three** reasons for 'incentive' at work place. (3 marks)
- (d) Briefly explain the following mode of communication on site:
- (i) oral;
- (ii) written. (5 marks)
7. (a) State any **six** factors that may be considered in site investigation. (6 marks)
- (b) Explain the term 'Method statement' as used in the construction industry. (5 marks)
- (c) State **six** characteristics of a good programme. (9 marks)
8. (a) State **four** roles of trade unions in the building industry. (6 marks)
- (b) List any **three** categories of institutions under Industrial Training Act. (1  $\frac{1}{2}$  marks)
- (c) With respect to the 'factories act' explain the precautions that must be taken to ensure the health of the employees is safe guarded against:
- (i) dermatitis;
- (ii) silicosis;
- (iii) asbestosis;
- (iv) bronchitis. (8 marks)
- (d) Explain the following terms as used in the factories act:
- (i) Improvement notice;
- (iii) Prohibitive notice. (4  $\frac{1}{2}$  marks)

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