

Name: \_\_\_\_\_ Index No. \_\_\_\_\_

2306/306  
**CONSTRUCTION MANAGEMENT**  
 Oct./ Nov. 2014  
 Time: 3 hours

Candidate's Signature: \_\_\_\_\_

Date: \_\_\_\_\_



THE KENYA NATIONAL EXAMINATIONS COUNCIL

**DIPLOMA IN QUANTITY SURVEYING**

CONSTRUCTION MANAGEMENT

**3 hours**

**INSTRUCTIONS TO CANDIDATES**

*Write your name and index number in the spaces provided above.*

*Sign and write the date of examination in the spaces provided above.*

*You should have a pocket calculator/ mathematics tables for this examination.*

*Answer **FIVE** of the following **EIGHT** questions in the spaces provided in this question paper.*

*All questions carry equal marks.*

*Candidates should answer the questions in English.*

**For Examiner's Use Only**

Question	1	2	3	4	5	6	7	8	TOTAL SCORE
Candidate's Score									

**This paper consists of 16 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) Highlight **four** roles of each of the following organisations connected with construction industry:
  - (i) Architectural Association of Kenya;
  - (ii) Kenya Bureau of Standards.

(8 marks)
- (b) Explain **four** contributions of the construction industry to the national economy.

(8 marks)
- (c) Differentiate between planning and organising.

(4 marks)
2. (a) Explain **five** ways of motivating workers.

(10 marks)
- (b) Outline **four** qualities of a leader.

(6 marks)
- (c) Distinguish selective tendering from serial tendering.

(4 marks)
3. (a) Highlight **four** activities done during each of the following planning stages in the construction process:
  - (i) pre-tender;
  - (ii) pre-contract;
  - (iii) contract.

(12 marks)
- (b) State **six** factors considered when planning a site layout.

(3 marks)
- (c) Describe each of the following contract documents:
  - (i) bill of quantities;
  - (ii) specifications.

(5 marks)
4. (a) State **six** documents used in material procurement.

(3 marks)
- (b) Highlight **five** ways of enhancing security of materials on site.

(5 marks)

- (c) Using the data in table 1, calculate the standard time of the activity. (12 marks)

Table 1

ACTIVITY	OBSERVED RATING (%)	WATCH READING	ALLOWANCE
Check time	-	00.00	-
1	90	5.25	21
2	95	12.75	23
3	80	21.30	25
Talk to a friend	-	23.55	-
4	95	30.25	20
5	105	35.45	22
1	100	40.25	21
2	95	47.95	23
Sit to rest	-	49.95	-
3	90	58.65	25
4	105	65.30	20
5	100	72.50	22
Check time	-	79.00	-

5. (a) Differentiate between a National Hospital Insurance Fund and a National Social Security Fund. (4 marks)
- (b) Explain **four** filing systems used in an organisation. (8 marks)
- (c) Explain **four** roles of trade unions in the construction industry. (8 marks)
6. (a) Highlight **four** provisions of the Occupational Safety and Health Act on each of the following: (12 marks)
- (i) health;
- (ii) welfare;
- (iii) safety.
- (b) Distinguish apprenticeship from inhouse training. (4 marks)
- (c) Explain each of the following leadership styles: (4 marks)
- (i) autocratic;
- (ii) democratic.

7. Use the information given in table 2 to:

- (a) draw an arrow network diagram. (9 marks)
- (b) determine: (i) overall duration of the project;  
 (ii) critical activities;  
 (iii) analysis sheet shown in earliest and latest start and finish times;  
 (iv) total float. (11 marks)

Table 2

ACTIVITY	EVENT	DURATION (WEEKS)
A	1 - 2	3
B	2 - 3	8
C	2 - 4	5
D	3 - 5	0
E	4 - 5	0
F	5 - 7	7
G	3 - 6	5
H	4 - 8	4
I	8 - 10	10
J	8 - 11	6
K	6 - 9	6
L	7 - 9	4
M	9 - 12	8
N	11 - 12	2
O	10 - 12	10

8. (a) State six training techniques for training personnel. (3 marks)
- (b) Explain three methods of remunerations to workers in an organisation. (6 marks)
- (c) Explain the procedure for recruiting workers for an organisation. (11 marks)