



MACHAKOS UNIVERSITY

University Examinations for 2021/2022

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

THIRD YEAR SECOND SEMESTER EXAMINATION FOR

DIPLOMA IN CIVIL ENGINEERING

BCECD 314 CONSTRUCTION MANAGEMENT 1

DATE:

TIME:

INSTRUCTIONS:

- This paper consists of **Five** questions.
- Answer question **ONE** and any other **TWO** questions
- Maximum marks for each part of the question are as shown

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) (i) Define the term management. (2 marks)
- (ii) Name and briefly explain three levels of management. (9 marks)
- b) (i) Mention three planning stages involved in the construction process. (3 marks)
- (ii) Define the term tendering and briefly explain any three methods of tendering.
- c) Draw an organization chart of a medium sized construction firm (8 marks)

QUESTION TWO (20 MARKS)

- a) Briefly explain four functions of management. (12 marks)
- b) Explain the following principles of organizational structure:
- Division of labour
 - Unity of command
 - Espirit de corps
 - order.
- (8 marks)

QUESTION THREE (20 MARKS)

- a) (i) Outline the importance /purpose of a site visit when preparing an estimate for a tender. (5 marks)
- (ii) List down five kinds of information that should be gathered when on a site visit stating the effect of each type on the bid. (15 marks)

QUESTION FOUR (20 MARKS)

- a) Distinguish between power and authority citing two examples for each case. (6 marks)
- b) (i) Define the term motivation. (2 marks)
- (ii) Using a suitable diagram, explain A H Maslow hierarchy of human needs. (12 marks)

QUESTION FIVE (20 MARKS)

- a) Outline the duties of each of the following in a pre-tender meeting;
- General Manager
 - Chief estimator
 - Contracts manager
 - Buyer
 - Planning engineer.
- (10 marks)
- b) Table 1 shows the activity; duration and number of operatives required for a project. Determine the project duration by means of a network diagram and indicate the critical path. (10 marks)

Table 1

Activity	Duration(in weeks)	No.of Operatives (per week)
1-2	4	4
1-3	3	6
1-4	6	5
2-7	7	6
2-5	0	0
3-5	5	4
4-5	4	3
4-6	2	2
5-7	5	7
6-7	3	4