

# ARCHITECTS AND QUANTITY SURVEYORS REGISTRATION BOARD

# P.O Box 72673 Dar es Salaam.

# **CONSTRUCTION MANAGEMENT**

# PRACTICAL EXPERIENCE LOG BOOK

Name of Candidate:

Year/Month Of Examination:

# TO BE FILLED IN BY HAND

### **ARCHITECTS AND QUANTITY SURVEYORS REGISTRATION BOARD**

# PRACTICAL EXPERIENCE RECORD DIARY FOR CONSTRUCTION MANAGEMENT CANDIDATES

#### 1. INTRODUCTION

Practical experience record diary for Construction Management Candidates is divided into 5 main sections as follows:

- 1. General Introduction
- 2. Eligibility for Registration
- 3. Qualification for Supervising Officers
- 4. The Practical Approach

The Diary is designed to guide both the Candidates and Supervisors on the Professional experience required for registration purposes. It is designed in such a manner that the Candidate understands clearly the necessary knowledge, skills and experience required as a prerequisite for registration as a Building Surveyor.

The objective of this examination is to provide a ground work for graduates to acquire a high level of professional competence to be able to penetrate the market and be employed as teaching/staffs in technical colleges, in private and public consultancy or construction firms or self-employed as contractors, consultants, and researchers. However, Building Survey graduates need to practise for at least two years before they sit for registration examinations.

Supervisors for Construction Management can utilize the diary to follow candidates training programmes while for examiners it provides a basis for assessing the extent of knowledge and experience gained by candidates.

**Logbook submission:** The logbook must be filled by the candidate and submitted to the Board at an interval of three (3) months.

This will assist the current supervisor not to sign off works undertaken when candidates was with previous trainer. In addition the supervisor will have sufficient time to evaluate professional activities conducted by the candidate as recorded, thus providing closer supervision

#### Diary sheets must be filled in by hand.

Logbooks that will not be submitted on quarterly basis shall not be accepted by the Board.

#### 2. ELIGIBILITY FOR REGISTRATION

Candidates seeking for registration should be holders of Bachelor's degree in Construction Management from a reputable University or equivalent level of education recognized by Tanzania Commission of Universities (TCU) and should have working experience of not less least two years. The training programme for registration purposes should cover two years with a total of 3080 working hours.

#### **3. QUALIFICATION FOR SUPERVISING OFFICERS**

Supervisors for candidates seeking for registration should be registered Construction Managers or Quantity Surveyors with a proven experience and capability of supervising and training candidates to acquire adequate guided knowledge in Construction Management.

#### 4. THE PRACTICAL APPROACH

The approach recommended is to break the task into various activities and allocate time required for each item. This is the time estimated to for candidates to gain minimum experience required.

Each candidate should practise for at least two years covering a total of 3080 hours calculated as follows:

One full year of 365 days less 175 days (52 Sundays, Saturdays 52, annual and sick leaves 35 public holidays 14 and 20.50 days to cover for absenteeism and unforeseen circumstances) remaining with 192.50 days. Therefore practising experience for one year covers 192.5 working days or 1540 hours. The time considered for practical experience is therefore 3080 hours in two years

Marks have been allocated to each activity with an overall of 110 marks which will be equated to 100 %. However, points have been allocated depending on the importance of the activity.

#### **Documentary Submission**

This comprises of two sections:

- 1. Professional Curriculum Vitae
- 11. Professional Training Diary

#### Section One: Professional Curriculum Vitae

This comprises of the following:

- (a) Details of full time and / or part time education and dates of examination taken
- (b) The record of practical training undertaken prior to graduation
- (c) Professional experience post graduate
- (d) Details of continuing professional development activities
- (e) Particulars of person involved in supervising and advising throughout the post graduation professional experience.

### Section Two: Professional Training Diary

The experience required is broken down into 8 sections as follows:

SECTION	ΤΟΡΙϹ
1	Construction Materials and Technology
2	Procurement, Estimating and Financial Management
3	Measurement Conventions and Techniques
4	Construction Planning, Scheduling and Site Management
5	Human Resource Management and Legal Aspects of Construction
6	Development .Appraisal and Investment Analysis for Land Development Projects
7	Project Financing and Maintenance Management
8	Other (please describe)

For each section the number of hours required and the corresponding marks/points assigned is indicated. The candidate is expected to indicate himself the number of hours spent on an activity, and the supervisor will certify this with his name and signature at the bottom of each page. Entries will follow the structure outlined below:

- Activity
- Date
- Total time spent on that activity
- Knowledge acquired
- Other professionals (or consultants) involved
- Comments by the supervisor
- Signature of the candidate and the supervisor

The diaries accepted will be only those issued by the Board and the Board will keep proper record of each diary taken. Candidates are hereby to note that that it is not necessary that training is to be for consecutive two years. The main emphasis should be to meet the minimum mandatory/ recommended hours even if it is for a period exceeding two years.

Candidate who will have acquired the experience prior to the introduction of the new system will be considered accordingly on a historical basis, provided that the board reserves the right to secure further information to authenticate the accuracy of information entered in the Diary

### LOG BOOK FOR PRACTICAL TRAINING FOR CONSTRUCTION MANAGEMENT

#### ASSESTMENT FOR EXPERIENCE REQUIRED FOR CONSTRUCTION MANAGEMENT

SECTION ONE	I CONSTRUCTION MATERIALS AND TECHNOLOGY	MINIMUM MAN HOURS	TOTAL POINTS	
1.1	Building Construction Technology			
1.1.1	Construction of residential buildings	56	2	
1.1.2	2 Construction of factory/industrial buildings	56	2	
1.1.3	3 Strength and stability of buildings	28	1	
1.2	Building Services Technology			
1.2.7	Electrical installations:	28	1	
1.2.2	2 Water Supply and Sanitary installations	28	1	
1.2.3	3 Air-Conditioning ventilation and lighting	28	1	
1.2.4	Fire-fighting installations	28	1	
1.2.5	Information and communication technology installation	28	1	
1.3	Construction Information Management	56	2	
1.4	Quality control procedures in construction	56	2	
1.5	Construction Equipment and their classification			
1.5.1	Classification on construction equipment	28	1	
1.5.2	2 Economic life of equipment	28	1	
1.5.3	B Equipment preventive maintenance and maintenance costs	28	1	
1.6	Building Materials			
1.6.1	Specification and standards for building materials	28	1	
1.6.2	2 Utilization of various waste products in constructions.	28	1	
1.6.3	B Sustainability of building materials	28	1	
1.7	Civil Engineering Projects	28	1	
1.8	Other Related Experience	28	1	
	TOTAL	616	22	

SECTION TWO	PROCUREMENT, ESTIMATING AND FINANCIAL MANAGEMENT	MINIMUM MAN HOURS	TOTAL POINTS	
2.1	Traditional procurement system/methods,	28	1	
2.2	Design and build procurement methods, turn-key method.	28	1	
2.3	Public Procurement Act: Preliminary provisions, the Public Procurement Authority	28	1	
2.4	The Public Procurement (Goods, Works, Non Consultant Services and Disposal of Public Assets by Tender) procedures	28	1	
2.5	Estimating for quantities of work and materials	56	2	
2.6	Calculations of unit rates: Material, labour and plant 28 and equipment			
2.7	Estimating for prices of building materials	28	1	
2.8	Estimating for prices of building services	28	1	
2.9	Pre-tender planning and tender adjudication	56	2	
2.10	Estimating and pricing of profit and overheads	28	1	
2.11	Pricing of Preliminary and general clauses	28	1	
2.12	Other Related Experience	28	1	
	TOTAL	392	14	

SECTION THREE	MEASUREMENT CONVENTIONS AND TECHNIQUES	MINIMUM MAN HOURS	TOTAL POINTS	
3.1	Physical Measurement from Existing Works	56	2	
3.2	Measurement from Drawings			
3.2.1	Measurement of New Building Works	84	3	
3.2.2	Measurement of Rehabilitation Works	56	2	
3.2.3	Measurement of Civil Engineering Projects	56	2	
3.2.4	Measurement of Building Services	56	2	
3.3	Measurement of Variations	84	3	
3.4	Preliminaries, Preambles, Day works, Prime Cost and Provisional Sums Sections of BOQ			
3.4.1	Preliminaries	28	1	
3.4.2	Preambles	28	1	
3.4.3	Day works	28	1	
3.4.4	Prime Cost and Provisional Sums	28	1	
3.5	Different forms of bills of quantities	28	1	
3.6	Writing specifications for work items	28	1	
3.7	Other Related Experience	28	1	
	TOTAL	588	21	

SECTION FOUR	CONSTRUCTION PLANNING, SCHEDULING AND SITE MANAGEMENT	MINIMUM MANHOURS	TOTAL POINTS	
4.1	Construction schedules, Scheduling methods; Network techniques- CPM, PERT, PDM	28	1	
4.2	Choice of Technology and Construction Methods	28	1	
4.3	Construction Financial Management	56	2	
4.4	Construction Information Management	28	1	
4.5	Site Operations and Management	28	1	
4.6	Construction Project Control	56	2	
4.7	Quality Control and Measurement	56	2	
4.8	Sustainable Construction Practices	28	1	
4.9	International Projects: governmental and construction industry requirements of safety and loss control regulations	28	1	
4.10	Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP)	28	1	
4.11	Other Related Experience	28	1	
	TOTAL	392	14	

SECTION FIVE	HUMAN RESOURCES MANAGEMENT AND LEGAL ASPECTS OF CONSTRUCTION	MINIMUM MANHOURS	TOTAL POINTS	
5.1	Safety and Occupational Health Hazards	28	1	
5.2	Organization and Human Resource Management	28	1	
5.3	Site Safety Management	28	1	
5.4	Construction Laws: Environmental laws, labour laws and Arbitration Act	28	1	
5.5	Construction Contracts	28	1	
5.6	Project Risk Management	56	2	
5.7	Safety Precautions in construction operations and equipment handling	28	1	
5.8	Statutory Safety Requirements/ Safety Management	28	1	
5.9	Construction Information Management	56	2	
5.10	Construction Insurances, bonds and guarantees	28	1	
5.11	Contract documents: the agreement, specifications, drawings, bills of quantities, work program28		1	
5.12	Other Related Experience	28	1	
	TOTAL	392	14	

SECTION SIX	DEVELOPMENT APRAISAL AND INVESTMENT ANALYSIS FOR LAND DEVELOPMENT PROJECTS	MINIMUM MAN HOURS	TOTAL POINTS	
6.1	Development of business plans;	28	1	
6.2	Situational Analysis of the Small Business Sector in Tanzania	28	1	
6.3	Methods of Investment Appraisal	28	1	
6.4	Payback period: Accounting Rate of Return and Discounted Cash flow Techniques (DCF)	56	2	
6.5	Lease/purchase decision; Type of information required;	28	1	
6.6	Entrepreneurship	28	1	
6.7	Management of project financial resources.	28	1	
6.8	Criteria for investment/Special features of real property in investment	28	1	
6.9	Developer's budget/working Capital Operating costs and the effect of depreciation	56	2	
6.10	Other Related Experience	28	1	
	TOTAL	336	12	

SECTION SEVEN	PROJECT FINANCING AND MAINTENANCE MANAGEMENT	MINIMUM MAN HOURS	TOTAL POINTS	
7.1	Project feasibility study	28	1	
7.2	Developing and monitoring construction budgets	28	1	
7.3	Value engineering processes/Job Plan	28	1	
7.4	Value management key techniques.	28	1	
7.5	Maintenance Management	28	1	
7.6	Post occupancy evaluation	28	1	
7.7	Statutory Requirements for Building Maintenance	28	1	
7.8	Classification of maintenance works, modernization/renewal Refurbishment and Rehabilitation	28	1	
7.9	Maintenance cycles, profiles and system	28	1	
7.10	Concepts of planned Maintenance, Maintenance plans, scheduled Versus unscheduled maintenance;	28	1	
7.11	Estimating for Maintenance:	28	1	
7.12	Problems and prospects of Maintenance	28	1	
7.13	Other Related Experience	28	1	
	TOTAL	364	13	



1. Project Name:	

Sub-section:		

Date of task:	From	То	

2.	Specific tasks undertaken:
3.	Relevant output:

4. Problems experienced:
5. Solution adopted:
6. Total hours spent:
7. Other Consultants (if any):
8. Contractors (if any):
9. Candidate's signature:
10. Supervisor's recommendation:
Supervisor's name:
Supervisor's name:
Supervisor's signature and rubber stamp:
Data:
Date:

**Note**: where the above space is not sufficient for a given report item, additional pages should be used following the same format.

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## **DECLARATION FORM**

I			
Index NoID NO			
hereby declare that the work I have submitted to the Architects and Quantity			
Surveyors Registration Board of Tanzania as part of my Professional			
Examinations for the Year is a true record of the work done			
by me under the guidance of the following Registered persons			

Name	Registration No.	Signature
Candidates Signatur	·e	



### ADMISSION TO PROFESSIONAL PRACTICE

### ENTRY EXAMINATION

## **Certificate of Practical Experience**

This is	to certify that	(full name of applicant)		
had co	ntinuous full-time experience* in my office from	to		
	and that under direction he/she was involved in the hand side box and put hours in the right hand side box.	the following areas of work: Please tick (V) in		
	Construction Materials and Technology			
	Procurement, Estimating and Financial Management			
	Measurement Conventions and Techniques			
	Construction Planning, Scheduling and Site Management			
	Human Resource Management and Legal Aspects of Construction.			
	Development .Appraisal and Investment Analysis for Land Develop			
	Project Financing and Maintenance Management			
	Other (please describe)			
*lf em	ployment has been part-time indicate here the number of h	nours per week		
Job Title of Applicant				
Name of Supervisor (Print)				
Professional Qualifications of Supervisor				
Name of Principal/Employer (Print)				
Name of Practice/Company				
Address of Practice/Company				
Business of Practice/Company				
Signa	ture and Stamp of Principal/Employer	Date		
Please complete if applicable				
This is to certify thatEnglish language ability is adequate for				
•	endent practice. e note: a separate Certificate must be submitted.			
1 1003	e note, a separate vertineate must be submitted.			