



DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2022-23 (ODD)

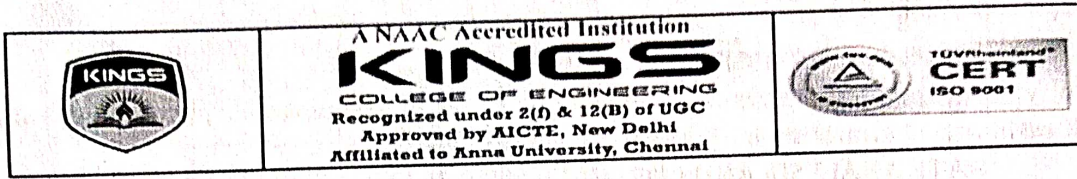
Date: 20.07.2022

CIRCULAR

This is to inform, that our department is going to conduct a **REFRESHER COURSE on QUANTITY SURVEYING** on this academic year 2022-2023, Final year students are requested to enroll their name to Ms.S.GAYATHRI AP/CIVIL on or before **30.07.2022**.

S. Gayathri 20/7/22
Coordinator
(Ms.S.GAYATHRI AP/CIVIL)

R. Saravanan 20/07/2022
HOD/CIVIL
(DR.R.SARAVANAN)



DEPARTMENT OF CIVIL ENGINEERING

REFRESHER COURSE

SUBJECT: QUANTITY SURVEYING

YEAR/SEMESTER: IV/VII

ACADEMIC YEAR: 2022-2023(ODD SEM)

PREPARED BY

Ms.S.GAYATHRI, AP/ CIVIL

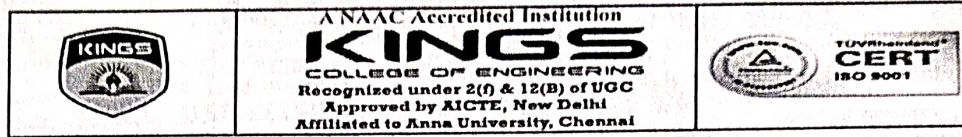
QUANTITY SURVEYING

UNIT - I	QUANTITY ESTIMATION	4
Philosophy – Purpose – Methods of estimation – Types of estimates – Approximate estimates – Detailed estimate – Estimation of quantities for buildings.		
UNIT II	RATE ANALYSIS AND COSTING	6
Standard Data – Observed Data – Schedule of rates – Market rates – Standard Data for Man Hours and Machineries for common civil works – Rate Analysis for all Building works, canals, and Roads– Cost Estimates.		
UNIT III	SPECIFICATIONS, REPORTS AND TENDERS	7
Specifications – Detailed and general specifications – Constructions– Types of specifications – Principles for report preparation – report on estimate of residential building –Roads – TTT Act 2000 – Tender notices.		
UNIT IV	CONTRACTS	7
Contract – Types of contracts – Contract conditions – Contract for labour, material, design, construction – Drafting of contract documents based on IBRD / MORTH Standard bidding documents.		
UNIT V	VALUATION	6
Valuations– Capitalized value – Depreciation – Escalation – Valuation of land – Buildings – Calculation of Standard rent – Mortgage – Lease		

TOTAL: 30 PERIODS

S. Gayathri 21/8/22
 STAFF INCHARGE
 Ms.S.GAYATHRI

R. Saravanan
 02/08/2022
 HOD/CIVIL
 Dr.R.SARAVANAN



DEPARTMENT OF CIVIL ENGINEERING

Sub. Name: Quantity surveying
Staff Name: Ms.S.Gayathri

Branch/Year/Sem: B.E CIVIL/IV/VII
Batch: 2019-2023
Academic Year: 2022-2023(ODD)

Topic No	Topic	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
UNIT I QUANTITY ESTIMATE				(04)
1.	Philosophy – Purpose – Methods of estimation	BB/PPT	1	1
2.	Types of estimates	BB/PPT	1	2
3.	Approximate estimates – Detailed estimate	BB/PPT	1	3
4.	Estimation of quantities for buildings.	BB/PPT	1	4
LEARNING OUTCOME				
At the end of unit, students should be able to				
<ul style="list-style-type: none"> Understand the concept of Estimate. Estimate the residential building. 				
UNIT II RATE ANALYSIS AND COSTING				(06)
5.	Standard Data – Observed Data – Schedule of rates – Market rates	BB/PPT	2	6
6.	Standard Data for Man Hours and Machineries for common civil works	BB/PPT	2	8
7.	Rate Analysis for all Building works, canals, and Roads– Cost Estimates.	BB/PPT	2	10
LEARNING OUTCOME				
At the end of unit, students should be able to				
<ul style="list-style-type: none"> Understand about the data collection. Know about schedule of rates. Analysis about rate analysis 				
UNIT III SPECIFICATIONS, REPORTS AND TENDERS				(07)
8.	Specifications – Detailed and general specifications	BB/PPT	1	11
9.	Constructions– Types of specifications	BB/PPT	2	13
10.	Principles for report preparation	BB/PPT	2	15
11.	Report on estimate of residential building	BB/PPT	1	16
12.	Roads – TTT Act 2000 – Tender notices.	BB/PPT	1	17

LEARNING OUTCOME

At the end of unit, students should be able to

- Outline the concept report preparation.
- Understand about specification.

(07)**UNIT IV CONTRACTS**

13.	Contract	VIDEO	1	18
14.	Types of contracts	VIDEO	1	19
15.	conditions – Contract for labor, material, design, construction	BB/PPT	2	21
16.	Drafting of contract documents based on IBRD / MORTH Standard bidding documents.	BB/PPT	3	24

LEARNING OUTCOME

At the end of unit, students should be able to

- Outline about contract system.
- Know the types of contract system.

(06)**UNIT V VALUATION**

17.	Valuations– Capitalized value	VIDEO	1	25
18.	Depreciation – Escalation	BB/PPT	1	26
19.	Valuation of land	BB/PPT	1	27
20.	Buildings – Calculation of Standard rent	VIDEO	1	28
21.	Mortgage – Lease	VIDEO	2	30

LEARNING OUTCOME

At the end of unit, students should be able to

- Outline the concepts of valuation.
- Know the methods of valuation.
- Understand the terminology in valuation.
- Prepare the value of buildings and other structures.

COURSE OUTCOME

At the end of syllabus, students will be able to

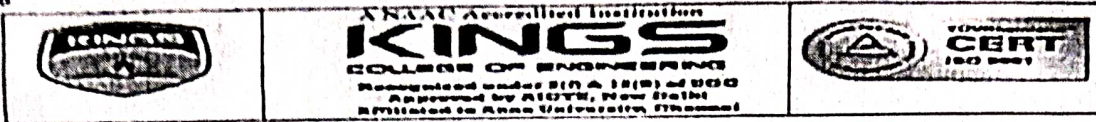
- Estimate the quantities for buildings,
- Rate Analysis for all Building works, canals, and Roads and Cost Estimate.
- Understand types of specifications, principles for report preparation, tender notices types.
- Gain knowledge on types of contracts.
- Evaluate valuation for building and land.

S. Gayathri 2/8/22

Prepared by
Ms.S.GAYATHRI

R. S. Daram
Verified by
02/05/2022
HOD/CIVIL

Format-QP06



DEPARTMENT OF CIVIL ENGINEERING
SPECIAL TIME TABLE (1.0.2022 - 6.0.2022, ODD SEM)
B.E - CIVIL (Regulation 2017) - With Effect from 1.8.2022

Batch: 2019 - 2023

Strength: 20

Year: IV

Semester: VII

Class Room : 233

Block: II

Session	1	2	10.45 am - 11.00 am	3	4	12.30 pm - 01.10 pm	5	6	02.40 pm - 02.50 pm	7	8
Day	09.15am - 10.00am	10.00am - 10.45am		11.00am - 11.45am	11.45am - 12.30pm		01.10pm - 01.55pm	01.55pm - 02.40pm		02.50pm - 03.35pm	03.35pm - 04.20pm
MON	Orientation		BREAK	CC		LUNCH BREAK	COMM.SKILL		BREAK	BC	
TUE	RFC			CC			COMM.SKILL			BC	
WED	RFC			CC			COMM.SKILL			BC	
THU	T&P(SS)	T&P(A)		CC			COMM.SKILL			BC	
FRI	RFC			CC			COMM.SKILL			BC	
SAT	RFC			CC			COMM.SKILL			BC	

SUB CODE	NAME OF THE SUBJECT	CREDITS	NAME OF THE STAFF	DEPT	PERIODS/WEEK
VALUE ADDITION INITIATIVES (VAI)					
Orientation	Orientation Program	-	Mr.K.Arun	CIVIL	2
COMMSKILL	Communication Skill	-	Mr.D.Dinesh	ENGLISH	12
BC	Bridge Course	-	Mr.R.Ramchandar	CIVIL	12
RFC	Refresher Course	-	Ms.S.Gayathri	CIVIL	08
T&P (A)	Training & Placement - Aptitude	-	Ms.P.Suganya	T&P	1
T&P(SS)	Training & Placement - Softskill	-	Dr.K.Sudhakar	T&P	1
CC	Certification Course - Sketchup	-	Mr.R.Chandrasekar	CIVIL	12

CLASS CO-ORDINATOR	NAME OF THE REPRESENTATIVES	ROLL NO
Mr.K.Arun	B.Agalya M.Jayaseelan	01 08

VALUE ADDITION INITIATIVES (VAI) - REGULAR HOURS					
LIB/NET	Library / Internet	VAI	Mr.K.Arun	CIVIL	1
NPTEL	NPTEL Swayam Courses	VAI	Mr.K.Arun	CIVIL	1
RC	Refresher Course	VAI	Ms.S.Gayathri	CIVIL	2
T&P (A)	Training & Placement - Aptitude	VAI	Ms.P.Suganya	T&P	1
T&P(SS)	Training & Placement - Softskill	VAI	Dr.K.Sudhakar	T&P	1

D. Shif
 DEPT. TIC

R. Sundar
 HOD
 30/07/2022

J. Muneer
 PRINCIPAL
 30/7/2022

REFRESHER COURSE

DAILY TRAINING

TENDER & CONTRACT

WHAT IS TENDER?

Tender is :

- o an offer to contractor to do the work for a certain amount of money
- o incorporate time and other conditions required
- o to carry out the contract requirements
- o main reason is to complete a project
- o The tender which is submitted by the contractor is generally based on a bill of quantities & specifications of the statement of work.

Difference between TENDER & CONTRACT

TENDER	CONTRACT
<ul style="list-style-type: none"> o The term tender formally means an invitation to trade under the terms of offer. 	<ul style="list-style-type: none"> o A contract is the term used when 2 parties have reached agreement.

TENDER SYSTEM

- ✓ The process of finalization of contracts is achieved through the tender process.

Advantages of the Tender process

- ✓ Most effective method of locking competitive rates.
- ✓ New technologies and options are received through open tender process.

TENDER NOTICE

- ✓ The Tender Notice is a brief description of the job being tendered
- ✓ to be published in Newspapers and on the Internet.
- ✓ The Internet is a very cost effective way of publishing the tenders.

Format of an ideal tender notice

<ol style="list-style-type: none"> 1. Name of the Project. 2. Name & Address of the Company offering the tender. 3. Name of work, materials or services. 4. Place of work location. 5. Approximate estimated cost of work. 6. Earnest Money. 7. Period of completion. 8. Date on which the Tender Document sale commences. 	<ol style="list-style-type: none"> 9. Date and time up to which tender documents can be obtained. 10. The cost of tender documents. 11. Due date of submission 12. Eligibility Criteria
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TYPES OF TENDER

1. Open tender (tawaran terbuka)
2. Close tender (tawaran terhad) / Selective tender (tawaran terpilih)
3. Negotiated tender (tawaran perundingan)

Open tender

- o Bidding process that is open to all qualified bidders
- o Tender usually published in the newspaper and internet
- o chosen on the basis of price and quality.
- o This is most effective way of obtaining many competitive rates.

Open tender - advantages

- o Any contractor can tender their work
- o No favoritism occurred
- o maximum competition
- o No commitment(terikat) to tender, all tender received will be genuine.

Open tender - disadvantages

- o Client must bear expensive cost of tendering (reproducing number of dwgs, bq etc.
- o The wrong contractor may be chosen because they are from unknown background
- o Time consuming

The lowest tender may not necessarily be a 'bargain'. Choosing a low tender may result in:

- o POOR WORK - a large number of, or even permanent, defects may occur unless there is close supervision by the client's agent.
- o POOR ORGANIZATION - late completion, specialist subcontractors delayed, etc.

Limited / selective tender

Limited tender

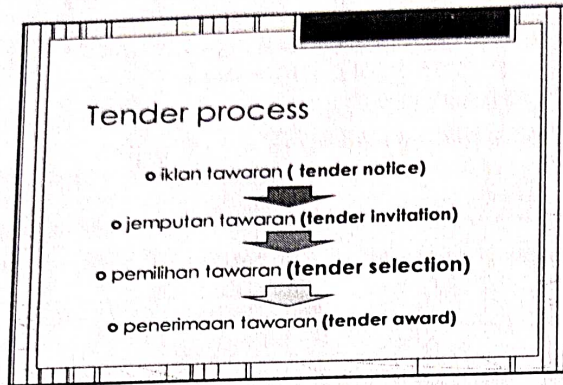
- o Tender open to bidders in the category stated in the notice only.
- o Example: limited tender is for Bumiputra bidders only.

Selective tender

- o A number of contractor of known reputations are selected by the design team to submit a price of the project.
- o The contractor who submit the lowest tender is generally awarded the contract.
- o The number chosen to bid under this tender is little
- o they are chosen for their expertise and experiences

Negotiated tender

- o Under this method, only one contractor is approached
- o normally because the skills of the contractor are such that the architect and other members of the design team needed from the contractor's specialist knowledge use for design stage
- o Following the completion of the design, the contractor will price the bill of quantities and then enter into a negotiation with the quantity surveyor.



WHAT IS CONTRACT?

- o A contract is an **exchange of promises between two or more parties** to do, or refrain from doing, an act which is enforceable in a court of law.
- o It is a binding legal **agreement**.

TYPES OF CONTRACT

- o **Lump Sum Contract**
- o **Cost Plus Contract**
- o **Turnkey Contract**
- o **Percentage of Construction Fee Contracts**

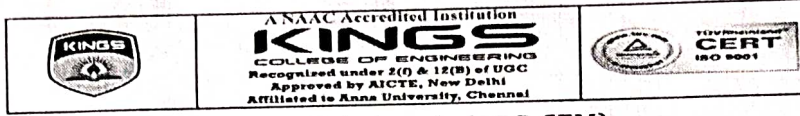
Lump Sum Contract

- o Also named "Fixed Fee Contract".
- o With this kind of contract the engineer and/or contractor agrees to do- the described and specified project for a fixed price.
- o Often used in engineering contracts.
- o Suitable if the scope and schedule of the project are appropriately defined - to allow the consulting engineer to estimate project costs.

Cost Plus Contract

- o purchaser agrees to pay :
 - o the cost of all labor and materials
 - o plus an amount for contractor overhead and profit (usually as a percentage of the labor and material cost).
- o This types of contracts are favored because:
 - o the scope of the work is indeterminate
 - o highly uncertain
 - o labor, material and equipment needed are also uncertain.
- o Under this arrangement - complete records of all time and materials spent by the contractor on the work must be maintained.

THANK YOU



ACADEMIC YEAR 2022-23 (ODD SEM)
RFC-QUANTITY SURVEYING
STUDENTS ENROLLMENT

IV YEAR CIVIL / VII SEM

S.No.	Reg. Number	Student Name	Students Signature
1	821119103001	AGALYA B	B. Agalya
2	821119103002	ANBUMANI S	S. Anbumani
3	821119103003	ARUNKUMAR M	M. Arunkumar
4	821119103004	ARUNPRASAD S	S. Arunprasad
5	821119103005	DIVYA S	S. Divya
6	821119103006	JANANI T S	T.S. Janani
7	821119103007	JAYACHANDRAN N	N. Jayachandran
8	821119103008	JAYASEELAN M	M. Jayaseelan
9	821119103010	KURALARASAN R	R. Kuralarasan
10	821119103011	MADHUMITHA R	R. Madhumitha
11	821119103012	MONIKA M	M. Monika
12	821119103013	PREMKUMAR J	J. Premkumar
13	821119103014	RENGESWARI R	R. Rengeswari
14	821119103015	RUBIKA M	M. Rubika
15	821119103016	SANTHOSH S	S. Santhosh
16	821119103017	SATHYA P	P. Sathya
17	821119103018	STALIN P	P. Stalin
18	821119103019	VIMAL R	R. Vimal
19	821119103301	DANIEL NAVIS F	F. Daniel Navis
20	821119103501	KARTHIKEYAN R	R. Karthikeyan
21	821119103501	ABIRAMI	S. Abirami

S. Gayathri 5/8/22
SUBJECT INCHARGE
(MS.S.GAYATHRI)

R. Saravanan 03/08/2022
HOD/CIVIL
(DR.R.SARAVANAN)



ACADEMIC YEAR 2022-23 (ODD SEM)
RFC-QUANTITY SURVEYING
Assessment Marks

IV YEAR CIVIL / VII SEM

S.No.	Reg. Number	Student Name	Total Marks (50)
1	821119103001	AGALYA B	50
2	821119103002	ANBUMANI S	47
3	821119103003	ARUNKUMAR M	45
4	821119103004	ARUNPRASAD S	45
5	821119103005	DIVYA S	49
6	821119103006	JANANI T S	48
7	821119103007	JAYACHANDRAN N	46
8	821119103008	JAYASEELAN M	50
9	821119103010	KURALARASAN R	50
10	821119103011	MADHUMITHA R	50
11	821119103012	MONIKA M	50
12	821119103013	PREMKUMAR J	42
13	821119103014	RENGESWARI R	50
14	821119103015	RUBIKA M	50
15	821119103016	SANTHOSH S	48
16	821119103017	SATHYA P	50
17	821119103018	STALIN P	50
18	821119103019	VIMAL R	43
19	821119103301	DANIEL NAVIS F	44
20	821119103501	KARTHIKEYAN R	44
21	821119103501	ABIRAMI	47

S. Gayathri 27/8/22
 SUBJECT INCHARGE
 (MS.S.GAYATHRI)

(Signature)
 HOD/CIVIL
 (DR.R.SARAVANAN)
 27/08/2022

A NAAC ACCREDITED INSTITUTION



KINGS
COLLEGE OF ENGINEERING

Recognised by UGC 2(f) & 12(B)
(Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai)
Punalkulam, Near Thanjavur, Pudukkottai Dt - 613303

DEPARTMENT OF CIVIL ENGINEERING
CERTIFICATE OF APPRECIATION

This is to certify that Mr./Ms. T.S.JANANI of IV YR Civil Engineering has completed REFRESHER COURSE in the topic QUANTITY SURVEYING organized by the Department of Civil Engineering, Kings College of Engineering, Thanjavur, during AUGUST 2022.

Ms.S.GAYATHRI
COURSE INCHARGE

Dr.R.SARAVANAN
HOD/CIVIL

Dr.J.ARPUTHA VIJAYA SELVI
PRINCIPAL

A NAAC ACCREDITED INSTITUTION



KINGS


COLLEGE OF ENGINEERING


Recognised by UGC 2(f) & 12(B)

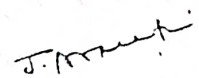
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Punalkulam, Near Thanjavur, Pudukkottai Dt - 613303

DEPARTMENT OF CIVIL ENGINEERING
CERTIFICATE OF APPRECIATION

This is to certify that Mr./Ms. P.STALIN of IV YR Civil Engineering has completed REFRESHER COURSE in the topic QUANTITY SURVEYING organized by the Department of Civil Engineering, Kings College of Engineering, Thanjavur, during AUGUST 2022.


Ms.S.GAYATHRI
COURSE INCHARGE


Dr.R.SARAVANAN
HOD/CIVIL


Dr.J.ARPUTHA VIJAYA SELVI
PRINCIPAL