

Accredited by NAAC with '8+' Grade, 2(f) & 128 Stotus Institution by UGC

IG Valley, Madurai Main Road, Manikandam, Tiruchirappalli - 620012

# **NAAC DOCUMENTS**

**QUALITY INDICATOR FRAME WORK** 

CRITERION - 1

# **CURRICULAR ASPECTS**

SUBMITTED BY

IQAC

INTERNAL QUALITY ASSURANCE CELL INDRA GANESAN COLLEGE OF ENGINEERING





#### DEPARTMENT OF CIVIL ENGINEERING

#### ACADEMIC YEAR 2019-2020 / ODD SEMESTER

#### 1.2 Academic Flexibility (30)

1.2.1 Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)

#### AND

1.2.2 Percentage of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

Resource Person:  Manag 5D Arcl Trichy- Mr.K C Trainee 5D Arcl Trichy-				ayaga Murthi, ag Director, tects & construction; 20012 nnesa Babu, tects & construction; 20012						
Date of cond	uct fro	om:	09.12.2019	)	To:	13.12.2019		Duration:	30 Hours	
Organized D	eparti	nent:	DEPART	MENT OF	CIV	IL ENGIN	EERIN	G		
Participant Year:		CIVIL	II ,III, IV	V Semester		ODD	No.	of Students R	legistered:	44
Venue:	CIVIL	IIIyr Cl	assroom, IGO	Œ						

#### Table of Content

S. No	Document	Page No
1.	VAC Circular	3-3
2.	VAC Schedule	4-4
3.	List of the Students Participation	5-7
4.	VAC Report	8-9
5.	VAC Test Paper	10-14
6.	VAC Answer Key	15-15
7.	VAC Test Answer Sheet- Sample	16-27
8.	VAC Mark Statement	28-35
9	Course Completion Certificates	36-38



### COLLEGE OF ENGINEERING

Madural Main Road (NH-45B), Manikandam, Trichy-12. Approved by AICTE, NewDelhi & Affiliated to Anna University, Chennal

## Department of CIVIL ENGINEERING

Academic Year 2019-2020 - Odd Semester

04.12.2019

#### DEPARTMENT CIRCULAR

Department of Civil Engineering and IQAC of IGCE in association with "5D Architects & construction" is going to organize Value Added Course for all Second, Third and Final year students on "Estimation and current practices in civil engineering" from 09.12.19 to 13.12.19. Certificates will be issued to the eligible participants at the end of the Course. This training is to be provided in our campus.

Resource Person Detail

- Er.T Vinayaga Murthi, Managing Director,
   5D Architects & construction; Trichy- 620012
- Mr.K Ganesa Babu, Trainee,
   5D Architects & construction; Trichy- 620012

Venue

CIVIL IIIyr Classroom, IGCE

HODICIVIL

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal

Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-628 012.

Cc:

- · Principal Table
- IQAC Co-Ordinator
- · HoD/Civil
- Class In charges II, III & IV-Year
- . II, III & IV-Year Civil Students
- · Office File
- Notice Board



# COLLEGE OF ENGINEERING

Madurai Main Road (NH-45B), Manikandam, Trichy-12. Approved by AICTE, NewDelhi & Affiliated to Anna University, Chennai

## Value Added Course

"Estimation and current practices in civil engineering"

## SYLLABUS

S.NO	TOPIC COVERED	DURATION (in hours)	DATE
1	Introduction of construction industries and construction projects	3	09.12.201
2	Sequences and schedule of work of building construction with all standard Norms	3	09.12.201
3	Brief study of building structure from foundation to top level of building	3	10.12.2019
4	Quantity take off techniques by Auto CAD Drawing on MS-Excel sheet	3	10.12.2019
5	Estimation of earthwork by live project drawing on MS-Excel sheet.	3	11.12.2019
6	Estimation of PCC work by live project drawing on MS-Excel sheet	3	11.12.2019
7	Introduction to framework and its types as per standard IS Code	3	12.12.2019
8	Estimation of extra items in frame work	3	12.12.2019
9	Estimation of concrete work items in frame work  (footing, beam, columns, slab, staircase, RCC walls, Lift wall)	3	13.12.2019
LV I	Estimation of bricks, stone and blocks masonry wall	3	13.12.2019
1	Exam	1	13.12.2019
	Total Hours	36	

Coordinator

Dr. G. Balakrishnan, M.E., Ph.D.,

HOD/CIVIL

Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-620 912.



# COLLEGE OF ENGINEERING Madurai Main Road (NH-45B), Manikandam, Trichy-12.

Approved by AICTE, NewDelhi & Affiliated to Anna University, Chennai

#### Value Added Course

"Estimation and current practices in civil engineering

# STUDENTS PARTICIPATION LIST

S.No.	Reg No	Name	Year/ Branch
1	811216103001	AUGUSTIN RAJ J	IV / CIVIL
2	811216103002	DANISH AHAMED SHAREEF K	IV / CIVIL
3	811216103003	HARIHARAN M	IV / CIVIL
4	811216103005	ISHWARYA V	IV / CIVIL
5	811216103006	JAMES ALPHONES RAJ A	IV / CIVIL
6	811216103007	KALPANA K	IV / CIVIL
7	811216103008	KARTHICK K	IV / CIVIL
8	811216103009	MATHIYAZHAGAN E	IV / CIVIL
9	811216103010	PREETHA S	IV / CIVIL
10	811216103011	SRINANDHINI V P	IV / CIVIL
11	811216103012	SYED JAMIRDEEN S	IV / CIVIL
12	811216103013	VIGNESH K	IV / CIVIL
13	811216103014	YOGESHWARAN T	IV / CIVIL
14	811216103301	ARAVIND A	IV / CIVIL
15	811216103302	PRASANTH N R	IV / CIVIL
16	811216103303	RAJ GOKUL A B	IV / CIVIL
17	811216103304	THIRUMALAI VASAN T	IV / CIVIL
18	811216103701	HARIHARAN T	IV / CIVIL
19	811216103702	MANOJKUMAR.A	IV / CIVIL
20	811216103703	NAVINKUMAR R	IV / CIVIL

Dr. G. Balakrishnan, M.E., Ph.D., Principal

Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-629 012.



# COLLEGE OF ENGINEERING

Madurai Main Road (NH-45B), Manikandam, Trichy-12. Approved by AICTE, NewDelhi & Affiliated to Anna University, Chennai

S.No.	Reg No	Name	Year/ Branch
1	811217103001	AISHWARIYA.P	III /CIVIL
2	811217103002	AKASH.S	III /CIVIL
3	811217103003	AROCKIA RENALDO.J	III/CIVIL
4	811217103004	AVINASH KUMAR.R	III /CIVIL
5	811217103005	BALAJI.S	III/CIVIL
6	811217103006	BALASUBRAMANI.R	III/CIVIL
7	811217103007	DEEPAN.S.K	III/CIVIL
8	811217103008	GAYATHRI.A	III /CIVIL
9	811217103009	KOKILA.P	III /CIVIL
10	811217103010	MANIKANDAN.G	III /CIVIL
11	811217103011	MOUNIKA.M	III /CIVIL
12	811217103012	NAVANEETHAN KRISHNAN.K	III/CIVIL
13	811217103013	PALANIYAPPAN.N	III/CIVIL
14	811217103014	SALEEM KHAN.S	III /CIVIL
15	811217103015	SATHISH KUMAR.S	III /CIVIL
16	811217103016	THAMARAI SELVI.K	III /CIVIL
7	811217103301	ARUN PRASATH R	III /CIVIL
8	811217103302	JOEL FERNANDEZ.R	III/CIVIL
9	811217103303	SUMITHIRA.R	III/CIVIL
0	811217103304	THIRUPATHI RAJA.G	III /CIVIL

Dr. G. Balakrishnan, M.E., Ph.D., Principal Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-628 012.



COLLEGE OF ENGINEERING Madurai Main Road (NH-45B), Manikandam, Trichy-12. Approved by AICTE, NewDelhi & Affiliated to Anna University, Chennai

S.No.	Reg No	Name	Year/ Branch
1	811218103001	AKASH J	II /CIVIL
2	811218103002	M. MAHENDRAN	II /CIVIL
3	811218103003	S MUSARAF ALI	II /CIVIL
4	811218103004	PRABU J	II /CIVIL

Dr. G. Balakrishnan, M.E., Ph.D.,

Principal
Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-628 012.

Lamofingens VAC Coordinator

HOD/CIVIL



COLLEGE OF ENGINEERING Madurai Main Road (NH-45B), Manikandam, Trichy-12. Approved by AICTE, NewDelhi & Affiliated to Anna University, Chennai

		REPORT ON VALUE ADDED COURSE							
Title:		Estimation and current practices in civil engineering							
	e Person:	Mana 5D A Trich	Vinayaga Munaging Director architects & co		n		Train	Architects & co.	
	conduct fr		09.12.2019	To	:	13.12		Duration:	30 Hours
Organize	ed Departr	nent :	CIVIL ENGIR	VEERING	3			Technical ASSES	100000000000000000000000000000000000000
Participa	nt Year:	2, 3, 4	Semester:	ODD	ODD		No. of S	Students Regist	arad. 44
Venue:	CIVIL	lassroo	m, 2 <sup>nd</sup> floor, Io	CE	_			Judicina Regisi	ered: 44
Outcom	e of Valu	e Adde	d Course (VA	C): At t				rse, Students o	
	Provisoftv     On comake     Under	ride kno ware completing anin erstand a truction	wledge about on of this coun action of build and apply vari projects.	estimation rse the str ing, sket- ous meth	n o	quantition of buildidents will up the best of quantities	es for dif ngs thro be able uilding p ntity est	fferent items of ugh estimator-, to know the pr plan and buildi imation measur	works & 2.0
	- 1.5011	nating, (	oricks calculat	ons and essment I	CO	st for dif	fferent m	naterials.	

Students, who are securing more than 70% on total score and secured more than 75% in attendance is eligible to receive the certificate for the VAC course conducted

Total Score = (0.5 \*Attendance in VAC out of 100 percentage + 0.5 \*Test mark in VAC out of 100 marks)

Dr. G. Balakrishnan, M.E., Ph.D.,

Principal Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-620 012.

AC Coordinator



### COLLEGE OF

Madural Main Road (NH-45B), Manikandam, Trichy-12. Approved by AICTE, NewDelhi & Affiliated to Anna University, Chennal

# REPORT ON VALUE ADDED COURSE (Sample Photos)

Title:

Estimation and current practices in civil engineering

Resource Person:

Er.T Vinayaga Murthi, Managing Director,

5D Architects & construction

Trichy Date of conduct from:

Mr.K Ganesa Babu.

Trainee.

5D Architects & construction;

Trichy 09.12.2019

To: 13.12.2019

Duration: 30 Hours

Organized Department:

CIVIL ENGINEERING

Participant Year:

2, 3, 4

Semester:

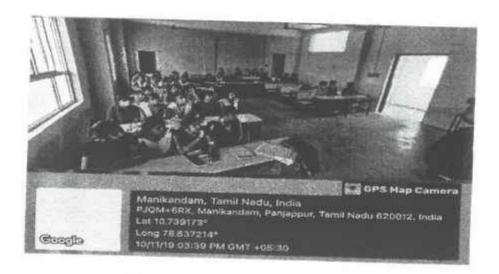
ODD

No. of Students Registered:

Venue:

CIVIL Classroom, 2nd floor, IGCE

#### PHOTOS





WILL AC Coordinator

Dr. G. Balakrishnan, M.E., Ph.D.

Principal

Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam Trichy-620 012



Academic Year 2019-2020 - Odd Semester

Name of the Student:

Year/Sem:

AU Register Number:

Value Added Course on "Estimation and current practices in civil engineering"

<ol> <li>The process of calculating the qua connection with the work is called</li> </ol>	ntites and costs of th	e various items required in
a) Estimate	(b) Costing	
c) Quantity surveying	(d) Estimating	
<ol><li>For any construction work, the pro- items of work is called</li></ol>	ocess of calculating th	e quantities of various
a) Estimate	(b) Costing	
c) Quantity surveying	(d) Estimating	
<ol> <li>The process of determining the pro- quantities of various items and the</li> </ol>	bable cost of the pro	ject, after knowing the
a) Estimate	(b) Costing	(0)
c) Quantity surveying	(d) Estimating	(3)
To make out an estimate for a wor Specification and  a) material	c) labour	Dr. G. Balakrishnan, M.E., Ph.B.
b) item rate  5. Sinking fund is	d) transportation	Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-620 612.
<ul> <li>a) The fund for rebuilding a structure when its economic life is over</li> </ul>		o be paid to the municipal
b) Raised to meet maintenance costs	authorities by t d) A part of the m providing addi structural modi	oney kept in reserve for tional structures and
6. Pre-tender stage requires		
a) Acquisition of land	c) Finalization of a	lignment of work
b) Selection of site	d) All the above	Comment of House
7. Select the correct statement.		



## Academic Year 2019-2020 - Odd Semester

a) A critical path alv	ways begins	at t	he	verv
first event	in ar Pulling Comment			

- b) A critical path always terminates at the last event
- c) Critical activities control the project duration
- d) Critical activity is the one for which free float is zero

# 8. Free float for any activity is defined as the difference between

- a) Its earliest finish time and earliest start time for its successor activity
- c) Its latest finish time and earliest start time for its successor activity
- b) Its latest start time and earliest start time
- d) Its earliest finish time and latest start time for its successor activity

#### 9. In CPM analysis,

- a) Emphasis is given to activities
- b) Uncertainties are not allowed
- c) Activities are represented by arrows
- d) All the above

# 10. The total estimated cost of building electrification usually accounts for

a) 2%

c) 1%

b) 3%

d) 12%

# 11. The constraints in case of resource smoothening operation would be

a) Resources

c) Both resources and project duration time

b) Project duration time

d) None of the above

### 12. The time which results in the least possible construction cost of an activity, is known as

a) Normal time

c) Crash time

b) Slow time

d) Standard time

Dr. G. Balakrishnan, M.E., Ph.D.,

#### Principal 13. Various activities of a project, are shown on bar charts by Indra Ganesan College of Engineering

a) Vertical lines

- c) Dots
- IG Valley, Madurai Main Road

b) Horizontal lines

- d) Crosses
- Manikandam, Trichy-620 012.

# 14. Total float for any activity is defined as the difference between

- a) Its latest finish time and earliest start time c) Its latest start time and earliest start time for its successor activity
- b) Its latest start time and earliest finish time
- d) Its earliest finish time and earliest start time for its successor activity

## 15. One building has floor area 150 m² and the floor area rate is 6500 Rs. Calculate the estimated cost of the building.

a) 786000 Rs.

c) 486000 Rs.



# Academic Year 2019-2020 - Odd Semester

b) 756000 Rs.

d) All the above

# 16. Residential buildings are treated as

- a) Light construction
- b) Heavy construction

- c) Industrial construction
- d) Private construction

Dr. G. Balakrishnan, M.E., Ph.D., Principal

Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-620 012.

# 17. Pick up the PERT event from the following:

- a) Digging of foundation started
- b) Digging of foundation completed
- c) Laying of concrete started
- d) All the above

# 18. The process of incorporating changes and rescheduling or replanning is called

a) Resource levelling

c) Updating

b) Resource smoothening

d) Critical path scheduling

# 19. Pick up the correct statement from the following:

- a) Programme Evaluation and Review Technique, is event oriented
- c) Critical Path Method is event oriented
- b) Programme Evaluation and Review Technique is not event oriented
- d) Critical Path Method is not event oriented

# 20. Time and progress chart of a construction, is also known as

a) Bar chart

c) Modified Mile stone chart

b) Gantt chart

d) All the above

### 21. The technique for establishing and maintaining priorities among the various jobs of a project, is known as

- a) Event flow scheduling technique
- b) Critical ratio scheduling
- c) Slotting technique for scheduling
- d) Short interval scheduling

#### 22. A CPM family includes

- a) CPA (Critical Path Analysis)
- b) CPP (Critical Path Plotted)
- c) MCE (Minimum Cost Expenditure)
- d) All the above

#### 23. Critical path

- a) Is always longest
- b) Is always shortest

- c) May be longest
- d) May be shortest



COLLEGE OF ENGINEERING Madural Main Road (NH-45B), Manikandam, Trichy-12. Approved by AICTE, NewDelhi & Affiliated to Anna University, Chennai

# Department of CIVIL ENGINEERING

# Academic Year 2019-2020 - Odd Semester

24. \_\_\_\_\_ is prepared on the basis of plinth area of building.

a) Cube rate estimate

c) maintenance estimate

b) supplementary estimate

d) rough estimate

25. The most suitable type of equipment for compaction of cohesive soils is

a) Smooth-wheeled rollers

c) Sheep foot rollers

b) Vibratory rollers

d) Tampers

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HoD/CIVIL

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Dr. G. Balakrishnan, M.E., Ph.D.,
Principal
Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.



Academic Year 2019-2020 - Odd Semester

Value Added Course on Estimation and current practices in civil engineering

### ANSWER KEY

1	b	6	d	11	b	16	a	21	ь
2	d	7	d	12	ь	17	d	22	d
3	ď	8	а	13	ь	18	С	23	a
4	с	9	d	14	ь	19	а	24	а
5	a	10	d	15	a	20	đ	25	c

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal
Indra Ganesan College of Engineering
IG Valley, Madurai Main Read
Manikandam, Trichy-628 612.

Ranchingur VAC Coordinator

Birnsent.



Madurai Main Road (NH-458), Manikandam, Trichy-12. Approved by AICTE, NewDelhi & Affiliated to Anna University, Chennal

## Department of CIVIL ENGINEERING

Academic Year 2019-2020 - Odd Semester

Name of the Student: Hariharan. M

Year/Sem:

AU Register Number: 811216103003.

Value Added Course on "Estimation and current practices in civil engineering"

#### MCO QUESTIONS (25X4 = 100 Marks)

connection with the work is called _	<del></del> : _1
a) Estimate	(b) Costing
c) Quantity surveying	(d) Estimating
<ol><li>For any construction work, the proceed items of work is called</li></ol>	
a) Estimate	(b) Costing Principal  Indra Ganesan College of Engineering
c) Quantity surveying	Œ Estimating      ✓ IG Valley, Madurai Main Road Manikandam, Trichy-628 012.
3. The process of determining the prob	able cost of the project, after knowing the
quantities of various items and their	unit rate is called
a) Estimate	(b) Costing
c) Quantity surveying	(d) Estimating
Specification and a) material B) item rate	the following data are necessary-Drawing,  c) labour d) transportation
355 3 Marian	and a subsection of the subsec
5. Sinking fund is  The fund for rebuilding a structure when its economic life is over  b) Raised to meet maintenance costs	<ul> <li>c) The total sum to be paid to the municipal authorities by the tenants</li> <li>d) A part of the money kept in reserve for providing additional structures and structural modifications</li> </ul>
6. Pre-tender stage requires	
a) Acquisition of land	c) Finalization of alignment of work
b) Selection of site	All the above
7. Select the correct statement.	

Academic Year 2019-	2020 - Odd Semester				
'a) A critical path always begins at the very first event	c) Critical activities control the project duration				
b) A critical path always terminates at the last event	Critical activity is the one for which free float is zero				
<ul> <li>8. Free float for any activity is defined a</li> </ul>	s the difference between				
<ul> <li>a) Its earliest finish time and earliest start time for its successor activity</li> </ul>	Tts latest finish time and earliest start time for its successor activity				
b) Its latest start time and earliest start time	<ul> <li>d) Its earliest finish time and latest start time for its successor activity</li> </ul>				
9. In CPM analysis,	- Ga				
<ul><li>a) Emphasis is given to activities</li><li>b) Uncertainties are not allowed</li></ul>	c) Activities are represented by arrows  All the above				
10. The total estimated cost of building e	lectrification usually accounts for				
a) 2%	c) 1%				
b) 3%	@ 12% V				
11. The constraints in case of resource sn	noothening operation would be				
a) Resources	c) Both resources and project duration time				
6 Project duration time	d) None of the above				
12. The time which results in the least po known as	ssible construction cost of an activity, is				
a) Normal time	C Crash time				
b) Slow time	d) Standard time				
13. Various activities of a project, are sho	wn on bar charts by				
a) Vertical lines	c) Dots				
(b) Horizontal lines	d) Crosses				
14. Total float for any activity is defined a	s the difference between				
<ul> <li>a) Its latest finish time and earliest start time for its successor activity</li> </ul>	c) Its latest start time and earliest start time				
(b) Its latest start time and earliest finish time	<ul> <li>d) Its earliest finish time and earliest start time for its successor activity</li> </ul>				
15. One building has floor area 150 m <sup>2</sup> and estimated cost of the building.	d the floor area rate is 6500 Rs. Calculate the				
(a) 786000 Rs.	c) 486000 Rs.				

1.



#### Academic Year 2019-2020 - Odd Semester

b)	756000	Rs.

d) All the above

- (a) Light construction
- b) Heavy construction

- c) Industrial construction
- d) Private construction

Dr. G. Balakrishnan, M.L., Ph.D.,

Indra Ganesan College of Engineering IG Valley, Madurai Main Road

17. Pick up the PERT event from the following:

- a) Digging of foundation started
- b) Digging of foundation completed
- c) Laying of concrete started
- All the above

18. The process of incorporating changes and rescheduling or replanning is called

- a) Resource levelling
- b) Resource smoothening

- © Updating
- d) Critical path scheduling

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- Programme Evaluation and Review, Technique, is event oriented
- Programme Evaluation and Review Technique is not event oriented
- c) Critical Path Method is event oriented
- d) Critical Path Method is not event oriented

20. Time and progress chart of a construction, is also known as

- a) Bar chart
- b) Gantt chart

- c) Modified Mile stone chart
- (d) All the above

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- a) Event flow scheduling technique
- b) Critical ratio scheduling

- Slotting technique for scheduling
- d) Short interval scheduling

22. A CPM family includes

- a) CPA (Critical Path Analysis)
- b) CPP (Critical Path Plotted)
- c) MCE (Minimum Cost Expenditure)
- All the above

23. Critical path

- (a) Is always longest
- b) Is always shortest

- c) May be longest
- d) May be shortest



#### Academic Year 2019-2020 - Odd Semester

24	is prepared	on the basis of	plinth area	of building.
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(a) Cube rate estimate

c) maintenance estimate

b) supplementary estimate

d) rough estimate

#### 25. The most suitable type of equipment for compaction of cohesive soils is

(a) Smooth-wheeled rollers

c) Sheep foot rollers

b) Vibratory rollers

d) Tampers

VAC Coordinator

HoD/CIVIL

Dr. G. Balakrishnan, M.E., Ph.D., Principal Indra Ganesan College of Engineering IG Valley, Madurai Main Road Manikandam, Trichy-620 012.



Main Road (NH-45B), Manikandam, Trichy-12. Approved by AICTE, NewDelhi & Affiliated to Anna University, Chennal

## Department of CIVIL ENGINEERING

Academic Year 2019-2020 - Odd Semester

Name of the Student: S. Akash

Year/Sem:

AU Register Number: 811 217103002

Value Added Course on "Estimation and current practices in civil engineering"

### MCQ QUESTIONS (25X4 = 100 Marks)

<ol> <li>The process of calculating the quant connection with the work is called _</li> </ol>	ites and costs of the various items required in
a) Estimate	(b) Costing
c) Quantity surveying	(d) Estimating
<ol><li>For any construction work, the proceed items of work is called</li></ol>	ess of calculating the quantities of various  Br. G. Balakrishnan, M.E., Ph.D.,
a) Estimate	(b) Costing Principal
c) Quantity surveying	(d) Estimating Undra Ganesan College of Engineering IG Valley, Madurai Main Road
<ol><li>The process of determining the prob quantities of various items and their</li></ol>	hable cost of the project, after knowing the unit rate is called
(a) Estimate	(b) Costing
c) Quantity surveying	(d) Estimating
To make out an estimate for a work     Specification and	the following data are necessary-Drawing,
a) material	©labour ~
b) item rate	d) transportation
5 Sinking fund is	
The fund for rebuilding a structure when its economic life is over	<ul> <li>c) The total sum to be paid to the municipal authorities by the tenants</li> </ul>
Raised to meet maintenance costs	d) A part of the money kept in reserve for providing additional structures and structural modifications
6. Pre-tender stage requires	
a) Acquisition of land	c) Finalization of alignment of work
b) Selection of site	d)All the above
7 Select the correct statement.	



COLLEGE OF ENGINEERING
Madural Main Road (NH-45B), Manikandam, Trichy-12.
Approved by AICTE, NewDelhi & Affiliated to Anna University, Chennai

# Department of CIVIL ENGINEERING

Academic Year 2019-	2020 – Odd Semester
a) A critical path always begins at the very first event     b) A critical path always terminates at the last event	Critical activities control the project duration d) Critical activity is the one for which free float is zero
8. Free float for any activity is defined a	s the difference between
alts earliest finish time and earliest start time for its successor activity	c) Its latest finish time and earliest start time for its successor activity
b) Its latest start time and earliest start time	<ul> <li>d) Its earliest finish time and latest start time for its successor activity</li> </ul>
9. In CPM analysis,	7
<ul><li>a) Emphasis is given to activities</li><li>b) Uncertainties are not allowed</li></ul>	c) Activities are represented by arrows (d) All the above
10. The total estimated cost of building e	lectrification usually accounts for
a) 2% b) 3%	c) 1% (d) 12%
11. The constraints in case of resource sn	noothening operation would be
a) Resources b) Project duration time	<ul> <li>c) Both resources and project duration time</li> <li>d) None of the above</li> </ul>
12. The time which results in the least po known as	ssible construction cost of an activity, is
a) Normal time  Slow time	c) Crash time d) Standard time
13. Various activities of a project, are sho	wn on bar charts by
a) Vertical lines  Horizontal lines	c) Dots d) Crosses
14. Total float for any activity is defined a	s the difference between
a) Its latest finish time and earliest start time for its successor activity	c) Its latest start time and earliest start time
b) Its latest start time and earliest finish time	<ul> <li>d) Its earliest finish time and earliest start time for its successor activity</li> </ul>
15. One building has floor area 150 m <sup>2</sup> an estimated cost of the building.	d the floor area rate is 6500 Rs. Calculate the
a)786000 Rs.	c) 486000 Rs.



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### Department of CIVIL ENGINEERING

#### Academic Year 2019-2020 - Odd Semester

7-7	756000	Da
D)	756000	IXS.

d) All the above

16.	Residential	buildings	are treated	as
-----	-------------	-----------	-------------	----

- a Light construction
- b) Heavy construction

- c) Industrial construction
- d) Private construction

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Principal

Indra Ganesan College of Engineering IG Valley, Madurai Main Read

Manikandam, Trichy-628 012.

17. Pick up the PERT event from the following:

- a) Digging of foundation started
- b) Digging of foundation completed
- c) Laying of concrete started
- d All the above

18. The process of incorporating changes and rescheduling or replanning is called

- a) Resource levelling
- b) Resource smoothening

- (c) Updating
  d) Critical path scheduling
- 19. Pick up the correct statement from the following:
- a) Programme Evaluation and Review Technique, is event oriented
- b) Programme Evaluation and Review Technique is not event oriented
- c) Critical Path Method is event oriented
- d) Critical Path Method is not event oriented
- 20. Time and progress chart of a construction, is also known as
- a) Bar chart
- b) Gantt chart

- c) Modified Mile stone chart
- (d) All the above
- 21. The technique for establishing and maintaining priorities among the various jobs of a project, is known as
- a) Event flow scheduling technique
- (b) Critical ratio scheduling

- c) Slotting technique for scheduling
- d) Short interval scheduling
- 22. A CPM family includes
- a) CPA (Critical Path Analysis)
- b) CPP (Critical Path Plotted)
- c) MCE (Minimum Çost Expenditure)
- d) All the above

- 23. Critical path
- a) Is always longest
- b) Is always shortest

- c) May be longest
- d) May be shortest



### Academic Year 2019-2020 - Odd Semester

24. \_\_\_\_\_\_ is prepared on the basis of plinth area of building.

(a) Cube rate estimate

- c) maintenance estimate
- b) supplementary estimate

d) rough estimate

25. The most suitable type of equipment for compaction of cohesive soils is

a) Smooth-wheeled rollers

(C) Sheep foot rollers

b) Vibratory rollers

d) Tampers

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## Department of CIVIL ENGINEERING

Academic Year 2019-2020 - Odd Semester

Name of the Student: J. Pralou

Year/Sem: 10 / 10

AU Register Number: 811218103004

Value Added Course on "Estimation and current practices in civil engineering"

MCQ QUESTIONS	(25X4 = 100 Marks)
The process of calculating the quantit connection with the work is called	b) Costing Indra Ganage Principal
a) Estimate	(b) Costing Principle Principle
c) Quantity surveying	(d) Estimating IG Valley Made of Engineering as of calculating the quantities of valley Road.
2. For any construction work, the proces	ss of calculating the quantities of workings
items of work is called	(b) Costing Indra Ganesan College of Engineering is of calculating the quantifies of Verificial Road
a) Estimate	(b) Costing
c) Quantity surveying	(d) Estimating
3. The process of determining the proba	ble cost of the project, after knowing the
quantities of various items and their u	
a) Estimate	(b) Costing
c) Quantity surveying	(d) Estimating
4. To make out an estimate for a work th	ne following data are necessary-Drawing,
Specification and	
material X	c) labour
b) item rate	d) transportation
5. Sinking fund is	
The fund for rebuilding a structure when	c) The total sum to be paid to the municipal
its economic life is over	authorities by the tenants
) Raised to meet maintenance costs	<ul> <li>d) A part of the money kept in reserve for providing additional structures and structural modifications</li> </ul>
6. Pre-tender stage requires	V4. A B 12.00 2 0
a) Acquisition of land b) Selection of site (	c) Finalization of alignment of work d) All the above

7. Select the correct statement.



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# **Department of CIVIL ENGINEERING**

#### Academic Year 2019-2020 - Odd Semester

duration
d) Critical activity is the one for which free
float is zero
s the difference between
c) Its latest finish time and earliest start time
for its successor activity
d) Its earliest finish time and latest start time
for its successor activity
<ul> <li>c) Activities are represented by arrows</li> </ul>
d) All the above
lectrification usually accounts for
c) 1%
d) 12%
noothening operation would be
c) Both resources and project duration time
d) None of the above
ssible construction cost of an activity, is
~ ~
(c) Crash time
d) Standard time
wn on bar charts by
c) Dots
d) Crosses
s the difference between
c) Its latest start time and earliest start time
d) Its earliest finish time and earliest start
time for its successor activity
the floor area rate is 6500 Rs. Calculate the
c) 486000 Rs.



#### Academic Year 2019-2020 - Odd Semester

b)	756000	Rs.
----	--------	-----

d) All the above

<ol><li>Residential buildings ar</li></ol>	e	treated	as
--	---	---------	----

- a)Light construction
- b) Heavy construction

- c) Industrial construction
- d) Private construction

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ing: IG Valley, Madurai Main Read c) Laying of concrete started. Trichy-620 012.

17. Pick up the PERT event from the following:

- a) Digging of foundation started
- b) Digging of foundation completed
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- (c)Updating
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### Academic Year 2019-2020 - Odd Semester

24. \_\_\_\_\_\_ is prepared on the basis of plinth area of building.

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c) maintenance estimate

b) supplementary estimate

d) rough estimate

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a) Smooth-wheeled rollers

c) Sheep foot rollers

(b) Vibratory rollers

d) Tampers

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### Department of Civil engineering

Academic Year 2019-2020 - Odd Semester

#### MARK SHEET FOR VALUE ADDED COURSE PROGRAM - Estimation and current practices in civil engineering

Reg No S.No.	Name	Year/ Branch	Attendance Details		VAC-MCQ TEST		OVERALL
			No. of Session Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	MARK(100) (50% of A + 50% of B)
811216103001	AUGUSTIN RAJ J	IV/CIVIL	30	100	20	80	90
811216103002	DANISH AHAMED SHAREEF K	IV/CIVIL	27	90	21	84	87
811216103003	HARIHARAN M	IV/CIVIL	30	100	21	84	92
811216103005	ISHWARYA V	IV/CIVIL	27	90	20	80	85
811216103006	JAMES ALPHONES RAJ A	IV/CIVIL	30	100	21	84	92
811216103007	KALPANA K	IV/CIVIL	30	100	22	88	94
811216103008	KARTHICK K	IV/CIVIL	30	100	20	80	90
811216103009	MATHIYAZHAGAN E	IV/CIVIL	27	90	21	84	87
811216103010	PREETHA S	IV/CIVIL	27	90	19	76	83
811216103011	SRINANDHINI V P	IV/CIVIL	27	90	19	76	83
811216103012	SYED JAMIRDEEN S	IV/CIVIL	30	100	21	84	92
	811216103001 811216103002 811216103003 811216103005 811216103006 811216103007 811216103009 811216103010 811216103011	811216103001 AUGUSTIN RAJ J  811216103002 DANISH AHAMED SHAREEF K  811216103003 HARIHARAN M  811216103005 ISHWARYA V  811216103006 RAJ A  811216103007 KALPANA K  811216103008 KARTHICK K  811216103009 MATHIYAZHAGAN E  811216103010 PREETHA S  811216103011 SRINANDHINI V P	Name	No. of Session Attended   No. of Session Attended   No. of Session Attended	Year/Branch   Year/Branch   No. of Session Attended (A)	Year/Branch   Year/Branch   No. of Session Attendance Details   VAC-More No. of Session Attended   No. of Mark(100)   No. of Session Attended   No. of Mark(100)   No. of No. of Mark(100)   No. of No.	Vac-McQ TEST   Vac-McQ TEST



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	Reg No	Name		Attendar	nce Details	VAC-M	CQ TEST	OVERALL MARK(100)	
S.No.			Year/ Branch	No. of Session Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	MARK(100) (50% of A + 50% of B)	
6	811217103006	BALASUBRAMANI.R	III/CIVIL	30	100	20	80	90	
7	811217103007	DEEPAN.S.K	III/CIVIL	27	90	21	84	87	
8	811217103008	GAYATHRI.A	III/CIVIL	30	100	21	84	92	
9	811217103009	KOKILA.P	III/CIVIL	27	90	20 80		85	
10	811217103010	MANIKANDAN.G	III/CIVIL	30	100	21	84	92	
11	811217103011	MOUNIKA.M	III/CIVIL	30	100	22	88	94	
12	811217103012	NAVANEETHAN KRISHNAN.K	III/CIVIL	30	100	20	80	90	
13	811217103013	PALANIYAPPAN.N	III/CIVIL	27	90	21	84	87	
14	811217103014	SALEEM KHAN.S	III/CIVIL	27	90	19	76	83	
15	811217103015	SATHISH KUMAR.S	III/CIVIL	30	100	21	84	92	
16	811217103016	THAMARAI SELVI,K	III/CIVIL	30	100	22	88	94	
17	811217103301	ARUN PRASATH R	III/CIVIL	30	100	20	80	90	
18	811217103302	JOEL FERNANDEZ.R	III/CIVIL	27	90	21	84	87	
19	811217103303	SUMITHIRA,R	III/CIVIL	27	90	19	76	83	
20	811217103304	THIRUPATHI RAJA.G	III/CIVIL	27	90	19	76	83	



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	Reg No	Name		Attenda	nce Details	VAC-M	CQ TEST	OVERALL MARK(100)	
S.No.			Year/ Branch	No. of Session Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	MARK(100) (50% of A + 50% of B)	
12	811216103013	VIGNESH K	IV/CIVIL	30	100	20	80	90	
13	811216103014	YOGESHWARAN T	IV/CIVIL	27	90	21 84		87	
14	811216103301	ARAVIND A	IV/CIVIL	30	100	21	84	92	
15	811216103302	PRASANTH N R	IV/CIVIL	27	90	20	80	85	
16	811216103303	RAJ GOKUL A B	IV/CIVIL	30	100	21	84	92	
17	811216103304	THIRUMALAI VASAN T	IV/CIVIL	30	100	22	88	94	
18	811216103701	HARIHARAN T	IV/CIVIL	30	100	20	80	90	
19	811216103702	MANOJKUMAR.A	IV/CIVIL	27	90	21	84	87	
20	811216103703	NAVINKUMAR R	IV/CIVIL	27	90	19	76	83	
1	811217103001	AISHWARIYA.P	III/CIVIL	30	100	21	84	92	
2	811217103002	AKASH.S	III/CIVIL	30	100	22	88	94	
3	811217103003	AROCKIA RENALDO.J	III/CIVIL	30	100	20	80	90	
4	811217103004	AVINASH KUMAR.R	III/CIVIL	27	90	21	84	87	
5	811217103005	BALAJI.S	III/CIVIL	27	90	19	76	83	

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C M.	Reg No	Name	Year/	Attenda	nce Details	VAC-M	CQ TEST			
S.No.			Branch	No. of Session Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	OVERALL MARK(100 (50% of A + 50% of B)		
1	811218103001	AKASH J	II/CIVIL	27	90	20	80	0.5		
2	811218103002	M. MAHENDRAN	II/CIVIL	30		1975.01	7.56	85		
3	811218103003	S MUSARAF ALI		1,772,771	100	21	84	92		
700				30	100	22	88	94		
4	811218103004	PRABU J	II/CIVIL	30	100	20	80	90		

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Indra Ganesan College of Engineering

IG Valley, Madurai Main Road Manikandam, Trichy-620 012.

Department of Civil engineering

Academic Year 2019-2020 - Odd Semester

STUDENTS ATTENDANCE LIST Value Added Course- Estimation and current practices in civil engineering



S.No.	Reg No	Name	Year/	09.12.19		PI-GI-01 F		11.12.19		12.12.19		13·12·1		NO OF SESSIONS	SIGN OF THE STUDENT
			Branch	FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	ATTENDED	
1	811216103001	AUGUSTIN RAJ J	IV/CIVIL	~	/	/	~	1	~	~	1	1	/	10	1 . 1
2	811216103002	DANISH AHAMED SHAREEF K	IV/CIVIL	~	~	/	~	/	/	~	a	~	/	9	K. Don A
3	811216103003	HARIHARAN M	IV/CIVIL	~	/	~	V	/	/	/	1	1	1	10	M. Haliharan
4	811216103005	ISHWARYA V	IV/CIVIL	/	V	~	a	/	1	-/	1	./	~		
5	811216103006	JAMES ALPHONES RAJ A	IV/CIVIL	~	~	~	/	/	/	/	<b>/</b>	\ \/	~	10	\$ shuary
6	811216103007	KALPANA K	IV/CIVIL	1	/	/	1	./	1	/	1	1	~	10	
7	811216103008	KARTHICK K	IV/CIVIL	/	1	1	1	1	1	/	1	1	~	10	Kalmana
8	811216103009	MATHIYAZHAGAN E	IV/CIVIL	V	/	-/	/	1	a	~	-		1	9	lead ha
9	811216103010	PREETHA S	IV/CIVIL	/	1	1	/	V	a	~	/	1	~	10	2 Malhor
10	811216103011	SRINANDHINI V P	IV/CIVIL	-	V	1	1	1	/	. /	a	1	V	10	1 scoupe
11	811216103012	SYED JAMIRDEEN S	IV/CIVIL		1	V	/	1	1	/	~	1	V	10	Syd jan



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S.No.	Reg No	Name	Year/ Branch	09.	12.12	10-1	13・12	11.12.19		ID:	2.19	13.19	2.19	NO OF SESSIONS	SIGN OF THE
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	ATTENDED	STUDENT
12	811216103013	VIGNESH K	IV/CIVIL	~	~	/	/	~	V	1	/	~	~	10	Winney
13	811216103014	YOGESHWARAN T	IV/CIVIL	~	/	/	/	~	/	~	a	/	/	9	J-4 OFER
14	811216103301	ARAVIND A	IV/CIVIL	~	~	/	1	/	~	1	~	1	1	10	A Aroung
15	811216103302	PRASANTH N R	IV/CIVIL	V	1	1	/	a	~	1	1	1	~	9	200
16	811216103303	RAJ GOKUL A B	IV/CIVIL	1	~	/	_	/	/	/	/	~	~	10	B RATKO
17	811216103304	THIRUMALAI VASAN T	IV/CIVIL	/	1	/	/	/	/	/	/	~	~	10	Thomas.
18	811216103701	HARIHARAN T	IV/CIVIL	/	1	/	1	/	/	/	1	/	/	10	handharan
19	811216103702	MANOJKUMAR.A	IV/CIVIL	~	1	1	a	/	/	/	V		~	9	Maries
20	811216103703	NAVINKUMAR R	IV/CIVIL	V	1	V	/	~	/	a	/	1	-	9	10-1
1	811217103001	AISHWARIYA.P	III/CIVIL	/	~	/	/	/	V	/	V	V	/	10	Alshua
2	811217103002	AKASH.S	III/CIVIL	~	V	/	/	/	/	1	V	/	/	10	Akash. S
3	811217103003	AROCKIA RENALDO.J	III/CIVIL	~	~	<b>/</b>	<b>✓</b>	/	/	/	~	V	~	10	Asst 8
4	811217103004	AVINASH KUMAR.R	III/CIVIL	V	/	1	/	V	a	1	V	1	V	9	Avninashkuma
5	811217103005	BALAJI,S	III/CIVIL	V	/	V	a	V	V	V	V	V	V	a	Brig



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S.No.	Reg No	Name	Year/ Branch	09·12·12		) 10·12·13		12/11/12/19		912.12.19		13.1	2.19	NO OF SESSIONS	SIGN OF THE STUDENT
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	ATTENDED	A
6	811217103006	BALASUBRAMANI.R	III/CIVIL	. ~	~	/	/	/	/	/	/			10	Ballisha
7	811217103007	DEEPAN.S.K	III/CIVIL	/	/	/	a	~	1		~	~	/	9	3 Despan
8	811217103008	GAYATHRI,A	III/CIVIL	1	1	/	V	/	/	~	/	1	V	10 0	A JOSEPHE
9	811217103009	KOKILA.P	III/CIVIL	V	00	V	V		1	V	1	d	V	9	P.Kokila
10	811217103010	MANIKANDAN.G	III/CIVIL	/	~	~	~	V	~		1	~	V	10	G1. Manie
11	811217103011	MOUNIKA.M	III/CIVIL	V	V	V	~	/	V	/	~	/	~	10	manikarm
12	811217103012	NAVANEETHAN KRISHNAN.K	III/CIVIL	~	V	V	V	V	V	/	/		/	10	7. No.
13	811217103013	PALANIYAPPAN.N	III/CIVIL	/	/	V	~	V	V	a	1	V	1	9	Palanin
14	811217103014	SALEEM KHAN.S	III/CIVIL	/	/	V	a	1	V	/	V	/	/	9	Salom Ki
15	811217103015	SATHISH KUMAR.S	III/CIVIL		1	V	~	/	V	/	1	_	/	10	Sathish Kun
16	811217103016	THAMARAI SELVI.K	III/CIVIL		V	/	V	/	V	/	1	/	~	10	Thampsu
17	811217103301	ARUN PRASATH R	III/CIVIL		V	V	~	~	1	V	1	/	/	10	Dun Pras
18	811217103302	JOEL FERNANDEZ,R	III/CIVIL	~	~	V	V	-	a		~	V	/	9	Joel Fe
19	811217103303	SUMITHIRA.R	III/CIVIL	/	V	V	V	V	1		V	/	/	9	Sumithina.
20	811217103304	THIRUPATHI RAJA.G	III/CIVIL	V	V	V	0	V	V	/	1	a	/	9 6	TO

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S.No.	Reg No	Reg No Name		09-12-12		10-12-12		11.12.12		12.12.14		A 13.12.19		NO OF SESSIONS	SIGN OF THE STUDENT
			Branch	FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	ATTENDED	DICDLIN
1	811218103001	AKASH J	II/CIVIL	V	V	~	~	~	V	~	a	~	_	9	J. Akash
2	811218103002	M. MAHENDRAN	II/CIVIL	/	/	1	1	~	/	~	~	~	~	10	n. mahend
3	811218103003	S MUSARAF ALI	II/CIVIL	1	/	1	~	/	1	/	1	~	/	10	of Must
4	811218103004	PRABU J	II/CIVIL	~	V	V	~	1	~	V	1	1	/	10	J. Brabu

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Raniatingan

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# CERTIFICATE OF PARTICIPATION

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This is to certify that Mr. KARTHICK K of IV has successfully completed the Value Added Course "Estimation and current practice in CIVIL Engineering" organized by Department of CIVIL Engineering in Association with "5D Architect and Construction" from 09.12.2019 to 13.12.2019 (5 days) during the Academic year 219-2020.

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