



# SRI BHARATHI

ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)  
Kaikkurichi, Pudukkottai -622 303

[www.sbec.edu.in](http://www.sbec.edu.in)

## NAAC DOCUMENTS



Quality Indicator Frame Work

Criterion – 2

Teaching-Learning and Evaluation

Submitted by

**IQAC**

**Internal Quality Assurance Cell**

**Sri Bharathi Engineering College for Women**



**Criteria 2**

**Teaching-Learning and Evaluation**

**350**

**Key Indicator- 2.3. Teaching- Learning Process (40)**

**2018-2019**

**PARTICIPATIVE LEARNING  
CIVIL ENGINEERING**

<b>Activity</b>	<b>Number of Students Attended</b>	<b>Page No.</b>
<b>Value Added Course (VAC)</b>	<b>81</b>	<b>3</b>
<b>Symposium</b>	<b>02</b>	<b>60</b>
<b>TOTAL STUDENTS ATTENDED</b>	<b>83</b>	<b>-</b>



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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

**Criteria 2**

**Teaching-Learning and Evaluation**

**350**

**Key Indicator- 2.3. Teaching- Learning Process (40)**

**2018-2019**

**CIVIL ENGINEERING**

**PARTICIPATIVE LEARNING**

**VALUE ADDED COURSE**



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## DEPARTMENT OF CIVIL ENGINEERING

### ACADEMIC YEAR 2018-2019 / ODD SEMESTER

Date:13/ 06/2018

#### DEPARTMENT CIRCULAR

Value added course offered by the Department of Civil Engineering for all Second, Third & Final year Civil Engineering students on “Earthquake Resistant Design of Foundation” in association with MR Construction and Promoters from 18.06.2018 to 22.06.2018. Certificates will be issued to the eligible participants at the end of the Course.

S.No.	Name of the Course	Resource Person
1.	Earthquake Resistant Design of Foundation	Er.A.Ragupathy Raja, Design Engineer, MR Construction and Promoters, Thanjavur.

Cc:

- Principal's Office
- IQAC Coordinator
- Class In charges - II, III & IV-year of Civil Engineering
- II, III & IV-year Civil Engineering Students
- Notice Board

*R.R.*  
HoD/Civil 13/6/18

HOD / CIVIL

SRI BHARATHI ENGINEERING  
COLLEGE FOR WOMEN  
KAIKKURICHI,  
PUDUKKOTTAI - 622 303

**Dr. S.THILAGAVATHI M.E., Ph.D.,**  
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DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2018-2019 / ODD SEMESTER

Value Added Course on “Earthquake Resistant Design of Foundation”

### SYLLABUS

S.NO	TOPIC COVERED	DURATION (in hours)	DATE
1	General requirements, types of shallow and deep foundations and their use	3	18.06.2018
2	IS codes for bearing capacity and settlement of foundations	3	18.06.2018
3	Dynamic Bearing Capacity under Transient & Earthquake Type Loads	3	19.06.2018
4	Dynamic Analysis of shallow foundations for various modes of vibrations	3	19.06.2018
5	Bearing Capacity under Transient & Earthquake Type Loads: Types of dynamic loads;	3	20.06.2018
6	Pile load capacity in compression, Laterally loaded piles, elastic analysis	3	20.06.2018
7	Pile with dynamic loads, Well Foundations & Caissons & Lateral stability of well foundations	3	21.06.2018
8	Dynamic Bearing Capacity and Design Data: Dynamic Analysis of shallow foundations for various modes of vibrations,	3	21.06.2018
9	Design seismic coefficients for various foundation soil systems, provisions of IS codes and their limitations; seismic coefficient and response spectra methods	3	22.06.2018
10	Modelling of Unbounded Soil Media for Dynamic Loads	3	22.06.2018
<b>Total Hours</b>		30	

  
VAC Coordinator

  
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## DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2018-2019 (ODD SEM)

STUDENTS PARTICIPATION LIST-VAC PROGRAM

EARTHQUAKE RESISTANT DESIGN OF FOUNDATION

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/BRANCH
1	912617103001	CHANDRIKA.C	II/CIVIL
2	912617103002	DHESIKAPARTHI.D	II/CIVIL
3	912617103003	KARTHIKA.K	II/CIVIL
4	912617103004	KASTHURI.K	II/CIVIL
5	912617103005	MONIKA.K	II/CIVIL
6	912617103006	MUTHUMEENA.P	II/CIVIL
7	912617103007	POTHUMPEN.A	II/CIVIL
8	912617103008	PRIYADHARSHINI.S	II/CIVIL
9	912617103009	RAJESWARI.J	II/CIVIL
10	912617103010	SIVAPRIYA.S	II/CIVIL
11	912617103701	LAKSHMI A	II/CIVIL
12	912616103001	AARTHI.G	III/CIVIL
13	912616103002	ANANTHI.S	III/CIVIL
14	912616103003	ANUSIYA.C	III/CIVIL
15	912616103004	KANIMOZHI.P	III/CIVIL
16	912616103005	LAVANYA.K	III/CIVIL
17	912616103006	MASILAMANI.M	III/CIVIL
18	912616103007	MENAKA.R	III/CIVIL

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19	912616103008	PRAVEENA.M	III/CIVIL
20	912616103301	GOWSIKA N	III/CIVIL
21	912616103302	KALISWARI M	III/CIVIL
22	912616103303	MAHESWARI M	III/CIVIL
23	912616103304	SARATHAPRITHA S	III/CIVIL
24	912615103001	ABINAYA .S	IV/CIVIL
25	912615103002	ALAMELU MANGAI .M	IV/CIVIL
26	912615103004	ANANTHI .V	IV/CIVIL
27	912615103005	AYESHA NAJUM .M	IV/CIVIL
28	912615103006	ELAMATHI .G	IV/CIVIL
29	912615103007	ELANTHENDRAL .N	IV/CIVIL
30	912615103008	GAYATHRI .R	IV/CIVIL
31	912615103009	GOMATHI .S	IV/CIVIL
32	912615103010	HARITHA .S	IV/CIVIL
33	912615103011	KARTHIKA .T	IV/CIVIL
34	912615103012	MADHUMITHA .M	IV/CIVIL
35	912615103013	RAIHANAJASMINE .A.S	IV/CIVIL
36	912615103014	RASIKA .R	IV/CIVIL
37	912615103015	SYED ALI FATHIMA .G	IV/CIVIL
38	912615103016	VAITHEGI .V	IV/CIVIL
39	912615103018	ZIRIN ZITHARA FATHIMA BANU .M	IV/CIVIL
40	912615103302	SURIYA T	IV/CIVIL
41	912615103303	VANMATHI M	IV/CIVIL

  
VAC Coordinator

  
HoD/Civil

HOD / CIVIL

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PUDUKKOTTAI - 622 303

  
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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2018-2019 (ODD SEM)

## ATTENDANCE SHEET FOR VALUE ADDED COURSE- EARTHQUAKE RESISTANT DESIGN OF FOUNDATION

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/ BRANCH	DATE: 18.06.18		DATE: 19.06.18		DATE: 20.06.18		DATE: 21.06.18		DATE: 22.06.18		NO OF SESSIONS ATTENDED	SIGNATURE OF THE STUDENT
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
1	912617103001	CHANDRIKA.C	II/CIVIL	/	/	/	/	/	/	/	/	/	/	10	C. Chandrika
2	912617103002	DHESIKAPARTHI.D	II/CIVIL	/	/	/	/	/	/	/	/	/	/	10	D. Dhesikaparthi
3	912617103003	KARTHIKA.K	II/CIVIL	/	/	/	/	/	/	/	/	/	/	10	K. Karthika
4	912617103004	KASTHURI.K	II/CIVIL	/	/	/	/	/	/	a	/	/	/	9	Kasthuri.k
5	912617103005	MONIKA.K	II/CIVIL	/	/	/	/	/	a	/	/	/	/	9	Monika.k
6	912617103006	MUTHUMEENA.P	II/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Muthumeena.p
7	912617103007	POTHUMPEN.A	II/CIVIL	/	a	/	/	/	/	/	a	/	/	8	Pothumpen.a
8	912617103008	PRIYADHARSHINI.S	II/CIVIL	/	/	/	a	/	a	/	/	/	/	8	Priyadharshini.s
9	912617103009	RAJESWARI.J	II/CIVIL	/	/	/	/	/	/	/	/	/	a	9	Rajeswari.j
10	912617103010	SIVAPRIYA.S	II/CIVIL	/	a	/	/	/	/	/	/	/	/	9	S. Sivapriya

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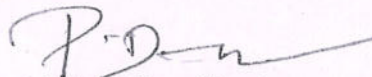
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11	912617103701	LAKSHMI A	II/CIVIL	/	a	/	/	/	/	/	/	/	/	9	Lakshmi
12	912616103001	AARTHI.G	III/CIVIL	/	/	/	/	/	/	/	a	/	/	9	Arthi
13	912616103002	ANANTHI.S	III/CIVIL	/	/	/	a	/	/	/	a	/	/	8	Ananthi
14	912616103003	ANUSIYA.C	III/CIVIL	/	a	/	/	/	/	/	/	/	a	8	Anushya
15	912616103004	KANIMOZHI.P	III/CIVIL	/	/	/	/	/	a	/	/	/	/	9	Kanimo
16	912616103005	LAVANYA.K	III/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Lavanya
17	912616103006	MASILAMANI.M	III/CIVIL	/	/	/	/	/	a	/	/	/	/	9	Masilamani
18	912616103007	MENAKA.R	III/CIVIL	/	/	/	a	/	/	/	/	/	/	9	Menaka R
19	912616103008	PRAVEENA.M	III/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Preef
20	912616103301	GOWSIKA N	III/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Gowsika N
21	912616103302	KALISWARI M	III/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Kalishwari
22	912616103303	MAHESWARI M	III/CIVIL	/	/	/	/	/	/	/	a	/	/	9	Maheswari
23	912616103304	SARATHAPRITHA S	III/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Sarathapri
24	912615103001	ABINAYA .S	IV/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Abhinaya
25	912615103002	ALAMELU MANGAI .M	IV/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Alamelu
26	912615103004	ANANTHI .V	IV/CIVIL	/	a	/	/	/	/	/	/	/	/	9	Anandhi
27	912615103005	AYESHA NAJUM .M	IV/CIVIL	/	/	/	a	/	/	/	a	/	/	8	Ayeshanajum
28	912615103006	ELAMATHI .G	IV/CIVIL	/	/	/	/	/	/	/	/	/	/	9	Elamathi

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29	912615103007	ELANTHENDRAL .N	IV/CIVIL	/	/	/	/	/	/	/	a	/	/	9	Elanthendral
30	912615103008	GAYATHRI .R	IV/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Gayathri
31	912615103009	GOMATHI .S	IV/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Gomathi
32	912615103010	HARITHA .S	IV/CIVIL	/	a	/	/	/	/	/	/	/	/	9	Haritha
33	912615103011	KARTHIKA .T	IV/CIVIL	/	/	/	a	/	a	/	/	/	/	8	Karthika
34	912615103012	MADHUMITHA .M	IV/CIVIL	/	/	/	/	/	/	/	a	/	/	9	Madhumitha
35	912615103013	RAIHANAJASMINE .A.S	IV/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Raihanajasmine
36	912615103014	RASIKA .R	IV/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Rasika
37	912615103015	SYED ALI FATHIMA .G	IV/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Syed Ali Fathima
38	912615103016	VAITHEGI .V	IV/CIVIL	/	a	/	/	/	/	/	/	/	/	9	Vaithengi
39	912615103018	ZIRIN ZITHARA FATHIMA BANU .M	IV/CIVIL	/	/	/	a	/	/	/	/	/	a	8	Zirin Zithara Fathima Banu
40	912615103302	SURIYA T	IV/CIVIL	/	/	/	/	/	/	/	a	/	/	9	Suriya
41	912615103303	VANMATHI M	IV/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Vanmathi

  
VAC Coordinator



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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

**Report on Value Added Course**

Title:	Earthquake Resistant Design of Foundation				
Resource Person:	Er.A.Ragupathy Raja, Design Engineer, MR Construction and Promoters, Thanjavur.				
Date of conduct from :	18.06.2018	To:	22.06.2018	Duration:	30 Hours
Organized Department :	CIVIL ENGINEERING				
Participant Year:	2, 3, 4	Semester:	ODD	No. of Students Registered :	41
Venue:	First Floor - Lecture Hall:30				

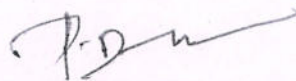
**Outcome of Value Added Course (VAC): Students can able to**

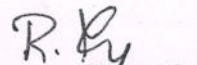
- Demonstrate a familiarity with foundation engineering terminology.
- Understand the principles of geomechanics are applied in the design of foundations to resist earthquakes .
- Get knowledge about the linked activities of foundation design and structural design .
- Develop a deepening appreciation of geomechanics as a coherent body of knowledge and how it relates to the wider field of civil engineering
- Design foundations for earthquake resistant structures.


No. of students successfully completed the VAC course is **41 students** based on the following assessment process.

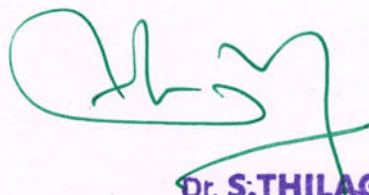
**Assessment Process**

- Students securing **more than 60% 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)

  
VAC Coordinator

  
HoD/Civil  
HOD / CIVIL

  
Principal  
26/06/18



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COLLEGE FOR WOMEN  
KAIKKURICHI - 622 303.  
PUDUKKOTTAI DISTRICT



**MR Construction  
& Promoters**

State Level Class 1 Contractor (PWD, TNEB)

**CERTIFICATE OF PARTICIPATION**

*This Certificate is presented to Ms. Haritha .S of IV Year B.E-Civil Engineering, Sri Bharathi Engineering College for Women for her active participation in 30 hours Value Added Course "Earthquake Resistant Design of Foundation" held between 18.06.2018 - 22.06.2018.*

**Dr. S. THILAGAVATHI M.E., Ph.D.,** MR Construction and Promoters  
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COLLEGE FOR WOMEN  
Kalkkurchi - 622 303, Pudukkottai Dt.

Design Engineer,

MR Construction and Promoters



**MR Construction  
& Promoters**

State Level Class 1 Contractor (PWD, TNEB)

**CERTIFICATE OF PARTICIPATION**

*This Certificate is presented to Ms.Sarathapriitha S of III Year B.E-Civil Engineering, Sri Bharathi Engineering College for Women for her active participation in 30 hours Value Added Course "Earthquake Resistant Design of Foundation" held between 18.06.2018 - 22.06.2018.*

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COLLEGE FOR WOMEN  
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Design Engineer,  
MR Construction and Promoters



**MR Construction  
& Promoters**

State Level Class 1 Contractor (PWD, TNEB)

**CERTIFICATE OF PARTICIPATION**

*This Certificate is presented to Ms.Dhesikaparthi.D of II Year B.E-Civil Engineering, Sri Bharathi Engineering College for Women for her active participation in 30 hours Value Added Course "Earthquake Resistant Design of Foundation" held between 18.06.2018 - 22.06.2018.*

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Design Engineer,  
MR Construction and Promoters



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DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2018-2019 / ODD SEMESTER

Name of the Student :

Year/Sem:

AU Register Number:

Value Added Course on “Earthquake Resistant Design of Foundation”

## MCQ QUESTIONS (25X4 = 100 Marks)

1. The system which comprises of the reinforced concrete column and connecting beams is known as \_\_\_\_\_  
a) RC frame  
b) RC shutter  
c) RC style  
d) RC hinge
2. While considering the design of R.C. buildings for providing ductility, IS codes prohibit the steel grade greater than \_\_\_\_\_  
a) Fe 250  
b) Fe 320  
c) Fe 415  
d) Fe 550
3. While considering the design of R.C. buildings for providing ductility, the minimum grade of concrete limited by the Indian Code is \_\_\_\_\_  
a) M 10  
b) M 20  
c) M 35  
d) M 50
4. According to the recommendations of IS 13920: 1993, the thickness of any part of the wall should not be less than \_\_\_\_\_  
a) 50 mm  
b) 100 mm  
c) 150 mm  
d) 200 mm
5. Base isolation technique was first demonstrated in India after the \_\_\_\_\_  
a) 2005 Kashmir earthquake  
b) 1991 Uttarkashi earthquake  
c) 1993 Killari earthquake  
d) 1950 Assam earthquake
6. The four-storeyed building of Bhuj Hospital was built after the \_\_\_\_\_  
a) 2001 Bhuj earthquake  
b) 1996 Bhuj earthquake  
c) 2006 Bhuj earthquake  
d) 1893 Bhuj earthquake
7. In viscous dampers, energy gets absorbed by \_\_\_\_\_ fluid which passes between the piston-cylinder arrangement.  
a) Aluminium-based  
c) Silicone-based

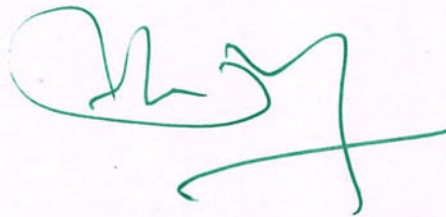
  
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- b) Iron-based  
d) Copper-based
8. Which instrument is used to detect and record seismic waves?  
a) Barograph  
b) Seismograph  
c) Diagraph  
d) Hygrograph
9. Which one of the following in structure is the most important factors affecting its earthquake performance?  
a) Workability  
b) Serviceability  
c) Flexibility  
d) Responsibility
10. Which device act like shock absorbers between the building and its foundation?  
a) Damper  
b) Spring  
c) Base isolation  
d) Air bag
11. Which is known as hypocenter?  
a) Epicenter  
b) Focus  
c) Focal depth  
d) Epicentral distance
12. What is the percentage of the structural cost of the building in the additional cost for the earthquake resisting structure?  
a) About 1%  
b) About 2%  
c) About 3%  
d) About 5%
13. Which isolation bearings are highly elastic?  
a) Wood  
b) Steel  
c) Rubber  
d) Bearing pads
14. In which portion of tectonic plates, earthquake generally occurs?  
a) Plate boundaries  
b) Diversion plates  
c) Converging plates  
d) Middle portion
15. What is the minimum distance to be maintained for the door opening from the cross wall?  
a) End of the wall  
b) 300 mm  
c) 500 mm  
d) 1000 mm
16. Which shape of building plan is safer for earthquake resisting building?  
a) Square plan  
b) T- shaped plan  
c) H- shaped plan  
d) Plan have length more than twice the width
17. What is the distance between two through stones?  
a) 150 to 300 mm  
b) 300 to 450 mm  
c) 450 to 600 mm  
d) 600 to 750 mm
18. Which one of the following is the hard landscape?  
a) Plantation  
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**Dr. S. THILAGAVATHI M.E., Ph.D.,**  
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19. Which precaution should be taken for site selection to prevent earthquake?  
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c) Columns of different height  
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c) medium damage  
d) no damage



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DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2018-2019 / ODD SEMESTER

Value Added Course on “Earthquake Resistant Design of Foundation”

## ANSWER KEY

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

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DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2018-2019 / ODD SEMESTER

19  
25

Name of the Student : G. SYED ALI FATHIMA

Year/Sem: IV / VII

AU Register Number: 912615103015

Value Added Course on “Earthquake Resistant Design of Foundation”

## MCQ QUESTIONS (25X4 = 100 Marks)

- The system which comprises of the reinforced concrete column and connecting beams is known as \_\_\_\_\_  
 a) RC frame  
 b) RC shutter  
 c) RC style  
 d) RC hinge
- While considering the design of R.C. buildings for providing ductility, IS codes prohibit the steel grade greater than \_\_\_\_\_  
 a) Fe 250  
 b) Fe 320  
 c) Fe 415  
 d) Fe 550
- While considering the design of R.C. buildings for providing ductility, the minimum grade of concrete limited by the Indian Code is \_\_\_\_\_  
 a) M 10  
 b) M 20  
 c) M 35  
 d) M 50
- According to the recommendations of IS 13920: 1993, the thickness of any part of the wall should not be less than \_\_\_\_\_  
 a) 50 mm  
 b) 100 mm  
 c) 150 mm  
 d) 200 mm
- Base isolation technique was first demonstrated in India after the \_\_\_\_\_  
 a) 2005 Kashmir earthquake  
 b) 1991 Uttarkashi earthquake  
 c) 1993 Killari earthquake  
 d) 1950 Assam earthquake
- The four-storeyed building of Bhuj Hospital was built after the \_\_\_\_\_  
 a) 2001 Bhuj earthquake  
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 c) 2006 Bhuj earthquake  
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- In viscous dampers, energy gets absorbed by \_\_\_\_\_ fluid which passes between the piston-cylinder arrangement.  
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- b) Iron-based  
d) Copper-based
8. Which instrument is used to detect and record seismic waves?  
a) Barograph  
 b) Seismograph  
c) Diagraph  
d) Hygrograph
9. Which one of the following in structure is the most important factors affecting its earthquake performance?  
a) Workability  
b) Serviceability  
 c) Flexibility  
d) Responsibility
10. Which device act like shock absorbers between the building and its foundation?  
a) Damper  
b) Spring  
 c) Base isolation  
d) Air bag
11. Which is known as hypocenter?  
a) Epicenter  
 b) Focus  
 c) Focal depth  
d) Epicentral distance
12. What is the percentage of the structural cost of the building in the additional cost for the earthquake resisting structure?  
a) About 1%  
b) About 2%  
 c) About 3%  
 d) About 5%
13. Which isolation bearings are highly elastic?  
a) Wood  
b) Steel  
 c) Rubber  
d) Bearing pads
14. In which portion of tectonic plates, earthquake generally occurs?  
 a) Plate boundaries  
b) Diversion plates  
c) Converging plates  
 d) Middle portion
15. What is the minimum distance to be maintained for the door opening from the cross wall?  
a) End of the wall  
b) 300 mm  
 c) 500 mm  
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16. Which shape of building plan is safer for earthquake resisting building?  
 a) Square plan  
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d) Plan have length more than twice the width
17. What is the distance between two through stones?  
a) 150 to 300 mm  
b) 300 to 450 mm  
 c) 450 to 600 mm  
 d) 600 to 750 mm
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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2018-2019 / ODD SEMESTER

Name of the Student : P. Karimoghi

Year/Sem: III / V

AU Register Number: 912616103004

Value Added Course on “Earthquake Resistant Design of Foundation”

## MCQ QUESTIONS (25X4 = 100 Marks)

1. The system which comprises of the reinforced concrete column and connecting beams is known as \_\_\_\_\_  
a) RC frame  
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2. While considering the design of R.C. buildings for providing ductility, IS codes prohibit the steel grade greater than \_\_\_\_\_  
a) Fe 250  
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3. While considering the design of R.C. buildings for providing ductility, the minimum grade of concrete limited by the Indian Code is \_\_\_\_\_  
a) M 10  
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4. According to the recommendations of IS 13920: 1993, the thickness of any part of the wall should not be less than \_\_\_\_\_  
a) 50 mm  
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5. Base isolation technique was first demonstrated in India after the \_\_\_\_\_  
a) 2005 Kashmir earthquake  
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a) 2001 Bhuj earthquake  
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8. Which instrument is used to detect and record seismic waves?

- a) Barograph  
 b) Seismograph

- c) Diagraph  
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9. Which one of the following in structure is the most important factors affecting its earthquake performance?

- a) Workability  
b) Serviceability

- c) Flexibility  
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10. Which device act like shock absorbers between the building and its foundation?

- a) Damper  
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- a) About 1%  
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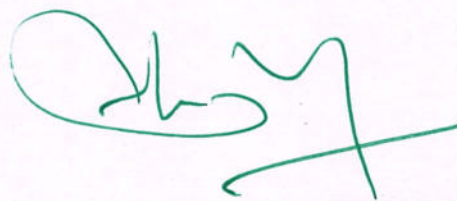
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DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2018-2019 / ODD SEMESTER

Name of the Student : *Mudhumeena. P*

Year/Sem: II / III

AU Register Number: *912617103006*

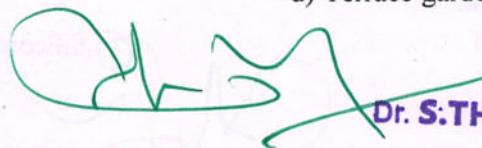
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DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2018-2019 (ODD SEM)

MARK SHEET FOR VALUE ADDED COURSE- EARTHQUAKE RESISTANT DESIGN OF FOUNDATION

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/ BRANCH	ATTENDANCE DETAILS		VAC-MCQ TEST		OVERALL MARK(100) (50% of A + 50% of B)
				No of Sessions Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
1	912617103001	CHANDRIKA.C	II/CIVIL	10	100	22	88	94
2	912617103002	DHESIKAPARTHI.D	II/CIVIL	10	100	20	80	90
3	912617103003	KARTHIKA.K	II/CIVIL	10	100	21	84	92
4	912617103004	KASTHURI.K	II/CIVIL	9	90	19	76	83
5	912617103005	MONIKA.K	II/CIVIL	9	90	18	72	81
6	912617103006	MUTHUMEENA.P	II/CIVIL	10	100	20	80	90
7	912617103007	POTHUMPEN.A	II/CIVIL	8	80	17	68	74

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8	912617103008	PRIYADHARSHINI.S	II/CIVIL	8	80	17	68	74
9	912617103009	RAJESWARI.J	II/CIVIL	9	90	22	88	89
10	912617103010	SIVAPRIYA.S	II/CIVIL	9	90	19	76	83
11	912617103701	LAKSHMI A	II/CIVIL	9	90	20	80	85
12	912616103001	AARTHI.G	III/CIVIL	9	90	19	76	83
13	912616103002	ANANTHI.S	III/CIVIL	8	80	17	68	74
14	912616103003	ANUSIYA.C	III/CIVIL	8	80	18	72	76
15	912616103004	KANIMOZHI.P	III/CIVIL	9	90	21	84	87
16	912616103005	LAVANYA.K	III/CIVIL	10	100	20	80	90
17	912616103006	MASILAMANI.M	III/CIVIL	9	90	17	68	79
18	912616103007	MENAKA.R	III/CIVIL	9	90	19	76	83
19	912616103008	PRAVEENA.M	III/CIVIL	10	100	22	88	94
20	912616103301	GOWSIKA N	III/CIVIL	10	100	21	84	92
21	912616103302	KALISWARI M	III/CIVIL	10	100	20	80	90

  
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22	912616103303	MAHESWARI M	III/CIVIL	9	90	18	72	81
23	912616103304	SARATHAPRITHA S	III/CIVIL	10	100	19	76	88
24	912615103001	ABINAYA .S	IV/CIVIL	10	100	21	84	92
25	912615103002	ALAMELU MANGAI .M	IV/CIVIL	10	100	20	80	90
26	912615103004	ANANTHI .V	IV/CIVIL	9	90	17	68	79
27	912615103005	AYESHA NAJUM .M	IV/CIVIL	8	80	18	72	76
28	912615103006	ELAMATHI .G	IV/CIVIL	9	90	20	80	85
29	912615103007	ELANTHENDRAL .N	IV/CIVIL	9	90	21	84	87
30	912615103008	GAYATHRI .R	IV/CIVIL	10	100	22	88	94
31	912615103009	GOMATHI .S	IV/CIVIL	10	100	17	68	84
32	912615103010	HARITHA .S	IV/CIVIL	9	90	18	72	81
33	912615103011	KARTHIKA .T	IV/CIVIL	8	80	22	88	84
34	912615103012	MADHUMITHA .M	IV/CIVIL	9	90	20	80	85
35	912615103013	RAIHANAJASMINE .A.S	IV/CIVIL	10	100	20	80	90

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K. J. SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN  
PUDUKKOTTAI - 622 303

36	912615103014	RASIKA .R	IV/CIVIL	10	100	17	68	84
37	912615103015	SYED ALI FATHIMA .G	IV/CIVIL	10	100	19	76	88
38	912615103016	VAITHEGI .V	IV/CIVIL	9	90	21	84	87
39	912615103018	ZIRIN ZITHARA FATHIMA BANU .M	IV/CIVIL	8	80	20	80	80
40	912615103302	SURIYA T	IV/CIVIL	9	90	22	88	89
41	912615103303	VANMATHI M	IV/CIVIL	10	100	18	72	86

*[Handwritten signature]*  
VAC Coordinator

*[Handwritten signature]*

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*[Handwritten signature]*  
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KAIKKURICHI,  
PUDUKKOTTAI - 622 303



# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

## DEPARTMENT OF CIVIL ENGINEERING

### ACADEMIC YEAR 2018-2019 / EVEN SEMESTER

Date:05 /12/2018

#### DEPARTMENT CIRCULAR

It is planned to conduct the Value added course offered by the Department of Civil Engineering for all Second, Third & Final year Civil Engineering students on “Quality Assurance and Quality Control in Civil Engineering” in association with Golden Bell Constructions and Promoters from 10.12.2018 to 14.12.2018. Certificates will be issued to the eligible participants at the end of the Course.

S.No.	Name of the Course	Resource Person
1.	Quality Assurance and Quality Control in Civil Engineering	Er.T.Andrews Livingston, B.E., Site Engineer & Supervisor, Golden Bell Constructions, Trichy.

Cc:

- Principal's Office
- IQAC Coordinator
- Class In charges - II, III & IV-year of Civil Engineering
- II, III & IV-year Civil Engineering Students
- Notice Board

*R. S. Thilagavathi*  
12/12/18  
HoD/Civil

HOD / CIVIL  
SRI BHARATHI ENGINEERING  
COLLEGE FOR WOMEN  
KAIKKURICHI,  
PUDUKKOTTAI - 622 303

*S. Thilagavathi*

Dr. S. THILAGAVATHI M.E., Ph.D.,  
PRINCIPAL  
SRI BHARATHI ENGINEERING  
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Kalkkurchi - 622 303, Pudukkottai Dt.





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## DEPARTMENT OF CIVIL ENGINEERING

### ACADEMIC YEAR 2018-2019 / EVEN SEMESTER

Value Added Course on

“Quality Assurance and Quality Control in Civil Engineering”

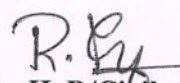
### SYLLABUS

S.NO	TOPIC COVERED	DURATION (in hours)	DATE
1	Roles and responsibilities of a QA/QC inspector	3	10.12.2018
2	Introduction to ISO 9000 and ISO 14000 standards	3	10.12.2018
3	International codes and standards for quality inspection	3	11.12.2018
4	Concept of quality inspection & classification of civil works	3	11.12.2018
5	Preparation of inspection procedures & NDT methods	3	12.12.2018
6	Project quality plan & Specific quality procedures	3	12.12.2018
7	Quality control QC job brief on receiving, in-process, final inspection	3	13.12.2018
8	Implementation and monitoring of QA/QC system	3	13.12.2018
9	Stage wise inspection for structural member	3	14.12.2018
10	Final documentation, inspection report, non conformance report, QA/QC	3	14.12.2018
<b>Total Hours</b>		30	

  
VAC Coordinator



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## DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2018-2019 (EVEN SEM)

### STUDENTS PARTICIPATION LIST-VAC PROGRAM

#### Quality Assurance and Quality Control in Civil Engineering

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/BRANCH
1	912617103001	CHANDRIKA.C	II/CIVIL
2	912617103002	DHESIKAPARTHI.D	II/CIVIL
3	912617103003	KARTHIKA.K	II/CIVIL
4	912617103004	KASTHURI.K	II/CIVIL
5	912617103005	MONIKA.K	II/CIVIL
6	912617103006	MUTHUMEENA.P	II/CIVIL
7	912617103007	POTHUMPEN.A	II/CIVIL
8	912617103008	PRIYADHARSHINI.S	II/CIVIL
9	912617103009	RAJESWARI.J	II/CIVIL
10	912617103010	SIVAPRIYA.S	II/CIVIL
11	912617103701	LAKSHMI A	II/CIVIL
12	912616103001	AARTHI.G	III/CIVIL
13	912616103002	ANANTHI.S	III/CIVIL
14	912616103004	KANIMOZHI.P	III/CIVIL
15	912616103005	LAVANYA.K	III/CIVIL
16	912616103006	MASILAMANI.M	III/CIVIL
17	912616103007	MENAKA.R	III/CIVIL

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18	912616103008	PRAVEENA.M	III/CIVIL
19	912616103301	GOWSIKA N	III/CIVIL
20	912616103302	KALISWARI M	III/CIVIL
21	912616103303	MAHESWARI M	III/CIVIL
22	912616103304	SARATHAPRITHA S	III/CIVIL
23	912616103501	VISALATCHI P	III/CIVIL
24	912615103001	ABINAYA .S	IV/CIVIL
25	912615103002	ALAMELU MANGAI .M	IV/CIVIL
26	912615103004	ANANTHI .V	IV/CIVIL
27	912615103005	AYESHA NAJUM .M	IV/CIVIL
28	912615103006	ELAMATHI .G	IV/CIVIL
29	912615103007	ELANTHENDRAL .N	IV/CIVIL
30	912615103008	GAYATHRI .R	IV/CIVIL
31	912615103009	GOMATHI .S	IV/CIVIL
32	912615103010	HARITHA .S	IV/CIVIL
33	912615103011	KARTHIKA .T	IV/CIVIL
34	912615103012	MADHUMITHA .M	IV/CIVIL
35	912615103013	RAIHANAJASMINE .A.S	IV/CIVIL
36	912615103014	RASIKA .R	IV/CIVIL
37	912615103015	SYED ALI FATHIMA .G	IV/CIVIL
38	912615103016	VAITHEGI .V	IV/CIVIL
39	912615103302	SURIYA T	IV/CIVIL
40	912615103303	VANMATHI M	IV/CIVIL

  
VAC Coordinator

  
HOD/Civil

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DEPARTMENT OF CIVIL ENGINEERING

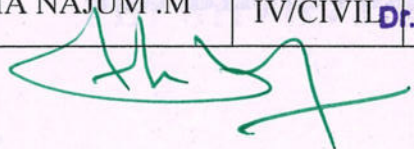
ACADEMIC YEAR 2018-2019 (EVEN SEM)

### ATTENDANCE SHEET FOR VALUE ADDED COURSE- Quality Assurance and Quality Control in Civil Engineering

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/ BRANCH	DATE: 10.12.18		DATE: 11.12.18		DATE: 12.12.18		DATE: 13.12.18		DATE: 14.12.18		NO OF SESSIONS ATTENDED	SIGNATURE OF THE STUDENT
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
1	912617103001	CHANDRIKA.C	II/CIVIL	/	/	/	/	/	/	/	a	/	/	9	C. Chandrika
2	912617103002	DHESIKAPARTHI.D	II/CIVIL	/	/	/	a	/	/	/	/	/	/	9	D. Dhesikaparthi
3	912617103003	KARTHIKA.K	II/CIVIL	/	/	/	/	/	/	/	/	/	/	10	K. Karthika
4	912617103004	KASTHURI.K	II/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Kasthuri.K
5	912617103005	MONIKA.K	II/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Monika.K
6	912617103006	MUTHUMEENA.P	II/CIVIL	/	a	/	/	/	/	/	/	/	/	9	Muthumeena.P
7	912617103007	POTHUMPEN.A	II/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Pothumpen.A
8	912617103008	PRIYADHARSHINI.S	II/CIVIL	/	/	/	/	/	a	/	/	/	/	9	Priyadharsini.S
9	912617103009	RAJESWARI.J	II/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Rajeswari.J


  
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10	912617103010	SIVAPRIYA.S	II/CIVIL	/	/	/	/	/	/	/	/	/	/	/	10	S. Sivapriya
11	912617103701	LAKSHMI A	II/CIVIL	/	/	/	/	/	/	/	/	/	/	/	10	Lakshmi A.
12	912616103001	AARTHI.G	III/CIVIL	/	/	/	/	/	/	/	/	/	a	9	Arthi	
13	912616103002	ANANTHI.S	III/CIVIL	/	a	/	/	/	a	/	/	/	/	8	Ananthi	
14	912616103004	KANIMOZHI.P	III/CIVIL	/	/	/	/	/	/	/	a	/	/	9	Kanimo	
15	912616103005	LAVANYA.K	III/CIVIL	/	/	/	a	/	/	/	/	/	/	9	Lavanya	
16	912616103006	MASILAMANI.M	III/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Masilamani	
17	912616103007	MENAKA.R	III/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Menaka.R	
18	912616103008	PRAVEENA.M	III/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Preetha	
19	912616103301	GOWSIKA N	III/CIVIL	/	a	/	/	/	/	/	/	/	/	9	Gowrika.N	
20	912616103302	KALISWARI M	III/CIVIL	/	/	/	/	/	/	/	a	/	/	9	Kalishwari	
21	912616103303	MAHESWARI M	III/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Manu	
22	912616103304	SARATHAPRITHA S	III/CIVIL	/	/	/	/	/	a	/	/	/	/	9	Arthi	
23	912616103501	VISALATCHI P	III/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Visalatchi	
24	912615103001	ABINAYA .S	IV/CIVIL	/	/	/	a	/	/	/	/	/	/	9	Arina	
25	912615103002	ALAMELU MANGAI .M	IV/CIVIL	/	a	/	/	/	/	/	/	/	a	8	Alungai	
26	912615103004	ANANTHI .V	IV/CIVIL	/	/	/	a	/	a	/	/	/	/	8	Ananthi	
27	912615103005	AYESHA NAJUM .M	IV/CIVIL	/	/	/	/	/	/	/	a	/	/	9	Ayeshanajum	



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28	912615103006	ELAMATHI .G	IV/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Elamathi
29	912615103007	ELANTHENDRAL .N	IV/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Elanthendral
30	912615103008	GAYATHRI .R	IV/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Gayathri
31	912615103009	GOMATHI .S	IV/CIVIL	/	a	/	/	/	/	/	/	/	/	9	Gomathi
32	912615103010	HARITHA .S	IV/CIVIL	/	/	/	/	/	/	a	/	/	/	9	Haritha
33	912615103011	KARTHIKA .T	IV/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Karthika
34	912615103012	MADHUMITHA .M	IV/CIVIL	/	/	/	a	/	/	/	a	/	/	8	Madhumitha
35	912615103013	RAIHANAJASMINE .A.S	IV/CIVIL	/	/	/	/	/	a	/	/	/	/	9	Raihanajasmine
36	912615103014	RASIKA .R	IV/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Rasika
37	912615103015	SYED ALI FATHIMA .G	IV/CIVIL	/	a	/	/	/	/	/	/	/	/	9	Syed Ali Fathima
38	912615103016	VAITHEGI .V	IV/CIVIL	/	/	/	/	/	a	/	/	/	a	8	Vaithengi
39	912615103302	SURIYA T	IV/CIVIL	/	/	/	/	/	/	a	/	/	/	9	Suriya
40	912615103303	VANMATHI M	IV/CIVIL	/	/	/	a	/	/	/	/	/	a	8	Vanmathi

  
VAC Coordinator



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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

**Report on Value Added Course**

Title:	Quality Assurance and Quality Control in Civil Engineering				
Resource Person:	Er.T.Andrews Livingston, B.E., Site Engineer & Supervisor, Golden Bell Constructions, Trichy.				
Date of conduct from :	10.12.2018	To:	14.12.2018	Duration:	30 Hours
Organized Department :	CIVIL ENGINEERING				
Participant Year:	2, 3, 4	Semester:	EVEN	No. of Students Registered :	40
Venue:	First Floor-Lecture Hall:30				

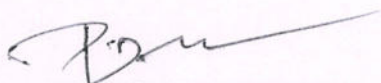
**Outcome of Value Added Course (VAC): At the end of the Course, Student can able to**

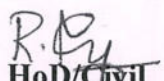
- Improve the management of material for construction project.
- Minimise the repetition of past failure.
- Learn from other people's experiences to avoid pitfalls and to minimize the repetitions of errors.
- Identify specific design, process or decision that reduces or eliminates the potential for failures.
- Explain the availability of corrective actions for typical problems that might impact the costs of a project.
- Assess the quality of the materials used in construction site.

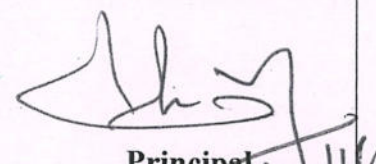
No. of students successfully completed the VAC course is **40 students** based on the following assessment process.

**Assessment Process**

- Students securing **more than 60% 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)

  
VAC Coordinator

  
HoD/Civil  
HOD / CIVIL

  
Principal  
PRINCIPAL

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COLLEGE FOR WOMEN  
KAIKKURICHI - 622 303,  
PUDUKKOTTAI DISTRICT

  
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SRI BHARATHI ENGINEERING  
COLLEGE FOR WOMEN  
Kalkkurchi - 622 303, Pudukkottai Dt.



# GOLDEN BELL CONSTRUCTIONS

## CERTIFICATE OF PARTICIPATION

*Certificate is awarded to Ms.ELAMATHI .G B.E IV year Civil Engineering Sri Bharathi Engineering College for Women for actively participated in 5 days Value Added Course on "Quality Assurance and Quality Control in Civil Engineering" from 10.12.2018 to 14.12.2018.*

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Kalkkurchi - 622 303, Pudukkottai Dt.

Site Engineer,  
Golden Bell Constructions.





# GOLDEN BELL CONSTRUCTIONS

## CERTIFICATE OF PARTICIPATION

*Certificate is awarded to Ms.KALISWARI M B.E III year Civil Engineering Sri Bharathi Engineering College for Women for actively participated in 5 days Value Added Course on "Quality Assurance and Quality Control in Civil Engineering" from 10.12.2018 to 14.12.2018.*

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Site Engineer,  
Golden Bell Constructions.



# GOLDEN BELL CONSTRUCTIONS

## CERTIFICATE OF PARTICIPATION

*Certificate is awarded to Ms.CHANDRIKA.C B.E II year Civil Engineering Sri Bharathi Engineering College for Women for actively participated in 5 days Value Added Course on "Quality Assurance and Quality Control in Civil Engineering" from 10.12.2018 to 14.12.2018.*

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## DEPARTMENT OF CIVIL ENGINEERING

### ACADEMIC YEAR 2018-2019 / EVEN SEMESTER

Name of the Student :

Year/Sem:

AU Register Number:

Value Added Course on

**“Quality Assurance and Quality Control in Civil Engineering”**

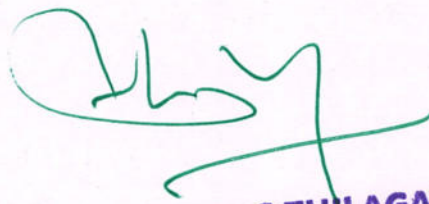
### MCQ QUESTIONS (25X4 = 100 Marks)

1. What is known as the maximum percentage of defective accepted by the customer?  
a) SQC  
b) AQL  
c) Order quantity  
d) Arbitrary sampling
2. What is the abbreviation of AAMA?  
a) Apparel Aids for Manufactures Association  
b) American Apparel Manufacturers Association  
c) American and Mexican Association  
d) American Aided Manufactures Association
3. Which is the process of maintaining the standards in the product?  
a) Quantity assurance  
b) Quality control  
c) Quality testing  
d) Quantity inspection
4. What is the goal of quality controllers?  
a) Maintain products and materials  
b) Maintain quality standards  
c) Maintain required materials  
d) Maintain quality of material
5. Who is responsible to solve the quality problem?  
a) Industrial engineers  
b) Quality supervisor  
c) Sewing operator  
d) Manager
6. Which method inspects random shipments?  
a) Spot checking  
b) Statistical sampling  
c) Arbitrary sampling  
d) No inspection
7. What is the other name for broken picks?  
a) Floats  
b) Double picks  
c) Lashing - in  
d) Temple mark

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8. Which of these is not a factor affecting quality Control?
- a) Employees of an organization  
b) Site location  
c) Skills of workers  
d) Supervision standards
9. What are the advantages of quality control?
- a) Reduction in construction cost  
b) Less inspection required  
c) Both A & B  
d) Reduction in material cost
10. Statistical Quality Control applied for \_\_\_\_\_
- a) To maintain quality  
b) To improve quality  
c) To solve quality problems  
d) All of the above
11. Which of these is not an objective of SQC?
- a) To know the trend of variables in the quality  
b) To decide the suitable quality level  
c) To assess the risk of project failure  
d) To reduce scrap and spoiled work
12. QMS, TQM, and QIP all corresponds to -----
- a) Quality techniques  
b) Quality abbreviations  
c) Quality parameters  
d) None of the above
13. Quality improvement program focuses on –
- a) Procedure  
b) Process and organization structure  
c) Research and responsibilities  
d) All are true
14. The \_\_\_ quality measure “inspection of the user interface”.
- a) Static analytical  
b) Dynamic analytical  
c) ISO  
d) SEI
15. At a work site, statistical quality control of concrete means
- a) Measurement of risks to eliminate failures  
b) Applying the theory' of probability to sample testing or inspection  
c) Reduction in wastage of inspection costs  
d) Reduction in costs for the removal of defects
16. Definition of Quality is \_\_\_\_\_.
- a) It is conformation to specification.  
b) It is about meeting the needs of the customer.  
c) It is reduction in variability.  
d) All of the above
17. Which are the indicators of good quality in a structure?
- a) Design of building is structurally sound.  
b) Proper materials are selected for proper purpose  
c) Workmanship is excellent  
d) All of the above

18. Which of this is not a good quality indicator in a structure?
- a) Adequate testing is done and results are satisfactory
  - b) Construction is supervised by technically qualified person
  - c) Expensive method of construction is adopted
  - d) Construction team is quality conscious
19. In construction industry QCIP stands for \_\_\_\_\_.
- a) Quantity Costing and Integration Program
  - b) Quality Control and Improvement Program
  - c) Quality Control Inspection Program
  - d) Quality Control Internal Program
20. Quality is not maintained by contractor because of \_\_\_\_\_
- a) To earn more profit using inferior material
  - b) To complete the work early
  - c) To cover up mistakes without rectifying them
  - d) All of the above
21. The minimum content of QCIP should be \_\_\_\_\_.
- a) Project introduction and proposed construction
  - b) Organization chart of inspection force
  - c) Number and specialties of inspectors proposed
  - d) All of the above
22. Which of these is not required as content of QCIP?
- a) Frequency of testing
  - b) Schedule of fund flow
  - c) Schedule of all major activities of construction
  - d) Planned use of consultants
23. Which of these is not a cost of quality control?
- a) Prevention Costs
  - b) Indirect Cost
  - c) External Cost
  - d) Appraisal Cost
24. CONQUAS stands for \_\_\_\_\_.
- a) Quality Control System for Construction
  - b) Construction Quality Assessment System
  - c) Construction Quality Assurance System
  - d) Construction Quality Control System
25. Quality Assurance is a sum of \_\_\_\_\_.
- a) Quality Design
  - b) Quality conformance and performance
  - c) Quality Service
  - d) All of the above



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COLLEGE FOR WOMEN  
Kalkkurchi - 622 303, Pudukkottai Dt.



# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2018-2019 / EVEN SEMESTER

Value Added Course on

“Quality Assurance and Quality Control in Civil Engineering”

ANSWER KEY

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

**Dr. S.THILAGAVATHI M.E., Ph.D.,**  
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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2018-2019 / EVEN SEMESTER

Name of the Student : A.S. Raihana Jasmine Year/Sem: IV/VIII

AU Register Number: 912615103013

Value Added Course on

“Quality Assurance and Quality Control in Civil Engineering”

## MCQ QUESTIONS (25X4 = 100 Marks)

1. What is known as the maximum percentage of defective accepted by the customer?  
a) SQC  
 b) AQL  
c) Order quantity  
d) Arbitrary sampling
2. What is the abbreviation of AAMA?  
a) Apparel Aids for Manufactures Association  
 b) American Apparel Manufacturers Association  
c) American and Mexican Association  
d) American Aided Manufactures Association
3. Which is the process of maintaining the standards in the product?  
a) Quantity assurance  
 b) Quality control  
c) Quality testing  
d) Quantity inspection
4. What is the goal of quality controllers?  
a) Maintain products and materials  
 b) Maintain quality standards  
c) Maintain required materials  
d) Maintain quality of material
5. Who is responsible to solve the quality problem?  
a) Industrial engineers  
 b) Quality supervisor  
c) Sewing operator  
d) Manager
6. Which method inspects random shipments?  
 a) Spot checking  
b) Statistical sampling  
c) Arbitrary sampling  
d) No inspection
7. What is the other name for broken picks?  
a) Floats  
 b) Double picks  
c) Lashing - in  
d) Temple mark

  
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22  
-----  
25

8. Which of these is not a factor affecting quality Control?
- a) Employees of an organization  
 b) Site location  
 c) Skills of workers  
 d) Supervision standards
9. What are the advantages of quality control?
- a) Reduction in construction cost  
 b) Less inspection required  
 c) Both A & B  
 d) Reduction in material cost
10. Statistical Quality Control applied for \_\_\_\_\_
- a) To maintain quality  
 b) To improve quality  
 c) To solve quality problems  
 d) All of the above
11. Which of these is not an objective of SQC?
- a) To know the trend of variables in the quality  
 b) To decide the suitable quality level  
 c) To assess the risk of project failure  
 d) To reduce scrap and spoiled work
12. QMS, TQM, and QIP all corresponds to -----
- a) Quality techniques  
 b) Quality abbreviations  
 c) Quality parameters  
 d) None of the above
13. Quality improvement program focuses on -
- a) Procedure  
 b) Process and organization structure  
 c) Research and responsibilities  
 d) All are true
14. The \_\_\_ quality measure "inspection of the user interface".
- a) Static analytical  
 b) Dynamic analytical  
 c) ISO  
 d) SEI
15. At a work site, statistical quality control of concrete means
- a) Measurement of risks to eliminate failures  
 b) Applying the theory' of probability to sample testing or inspection  
 c) Reduction in wastage of inspection costs  
 d) Reduction in costs for the removal of defects
16. Definition of Quality is \_\_\_\_\_.
- a) It is conformation to specification.  
 b) It is about meeting the needs of the customer.  
 c) It is reduction in variability.  
 d) All of the above
17. Which are the indicators of good quality in a structure?
- a) Design of building is structurally sound.  
 b) Proper materials are selected for proper purpose  
 c) Workmanship is excellent  
 d) All of the above

  
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18. Which of this is not a good quality indicator in a structure?
- a) Adequate testing is done and results are satisfactory  
 b) Construction is supervised by technically qualified person  
 c) Expensive method of construction is adopted  
 d) Construction team is quality conscious
19. In construction industry QCIP stands for \_\_\_\_\_
- a) Quantity Costing and Integration Program  
 b) Quality Control and Improvement Program  
 c) Quality Control Inspection Program  
 d) Quality Control Internal Program
20. Quality is not maintained by contractor because of \_\_\_\_\_
- a) To earn more profit using inferior material  
 b) To complete the work early  
 c) To cover up mistakes without rectifying them  
 d) All of the above
21. The minimum content of QCIP should be \_\_\_\_\_.
- a) Project introduction and proposed construction  
 b) Organization chart of inspection force  
 c) Number and specialties of inspectors proposed  
 d) All of the above
22. Which of these is not required as content of QCIP?
- a) Frequency of testing  
 b) Schedule of fund flow  
 c) Schedule of all major activities of construction  
 d) Planned use of consultants
23. Which of these is not a cost of quality control?
- a) Prevention Costs  
 b) Indirect Cost  
 c) External Cost  
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24. CONQUAS stands for \_\_\_\_\_.
- a) Quality Control System for Construction  
 b) Construction Quality Assessment System  
 c) Construction Quality Assurance System  
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25. Quality Assurance is a sum of \_\_\_\_\_.
- a) Quality Design  
 b) Quality conformance and performance  
 c) Quality Service  
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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2018-2019 / EVEN SEMESTER

20  
25

Name of the Student : MONIKA.K

Year/Sem: II / IV

AU Register Number: 912617103005

Value Added Course on

“Quality Assurance and Quality Control in Civil Engineering”

## MCQ QUESTIONS (25X4 = 100 Marks)

1. What is known as the maximum percentage of defective accepted by the customer?  
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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2018-2019 / EVEN SEMESTER

Name of the Student : Arathi G

Year/Sem: III / VI

AU Register Number: 912616103001

Value Added Course on

“Quality Assurance and Quality Control in Civil Engineering”

## MCO QUESTIONS (25X4 = 100 Marks)

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புதுச்சேரி  
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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2018-2019 (EVEN SEM)

## MARK SHEET FOR VALUE ADDED COURSE- Quality Assurance and Quality Control in Civil Engineering

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/ BRANCH	ATTENDANCE DETAILS		VAC-MCQ TEST		OVERALL MARK(100) (50% of A + 50% of B)
				No of Sessions Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
1	912617103001	CHANDRIKA.C	II/CIVIL	9	90	19	76	83
2	912617103002	DHESIKAPARTHI.D	II/CIVIL	9	90	21	84	87
3	912617103003	KARTHIKA.K	II/CIVIL	10	100	23	92	96
4	912617103004	KASTHURI.K	II/CIVIL	10	100	22	88	94
5	912617103005	MONIKA.K	II/CIVIL	10	100	20	80	90
6	912617103006	MUTHUMEENA.P	II/CIVIL	9	90	21	84	87
7	912617103007	POTHUMPEN.A	II/CIVIL	10	100	18	72	86

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8	912617103008	PRIYADHARSHINI.S	II/CIVIL	9	90	19	76	83
9	912617103009	RAJESWARI.J	II/CIVIL	10	100	20	80	90
10	912617103010	SIVAPRIYA.S	II/CIVIL	10	100	20	80	90
11	912617103701	LAKSHMI A	II/CIVIL	10	100	21	84	92
12	912616103001	AARTHI.G	III/CIVIL	9	90	18	72	81
13	912616103002	ANANTHI.S	III/CIVIL	8	80	17	68	74
14	912616103004	KANIMOZHI.P	III/CIVIL	9	90	20	80	85
15	912616103005	LAVANYA.K	III/CIVIL	9	90	21	84	87
16	912616103006	MASILAMANI.M	III/CIVIL	10	100	19	76	88
17	912616103007	MENAKA.R	III/CIVIL	10	100	20	80	90
18	912616103008	PRAVEENA.M	III/CIVIL	10	100	22	88	94
19	912616103301	GOWSIKA N	III/CIVIL	9	90	21	84	87
20	912616103302	KALISWARI M	III/CIVIL	9	90	18	72	81
21	912616103303	MAHESWARI M	III/CIVIL	10	100	17	68	84

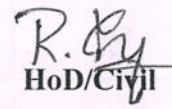
  
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22	912616103304	SARATHAPRITHA S	III/CIVIL	9	90	18	72	81
23	912616103501	VISALATCHI P	III/CIVIL	10	100	19	76	88
24	912615103001	ABINAYA .S	IV/CIVIL	9	90	20	80	85
25	912615103002	ALAMELU MANGAI .M	IV/CIVIL	8	80	21	84	82
26	912615103004	ANANTHI .V	IV/CIVIL	8	80	22	88	84
27	912615103005	AYESHA NAJUM .M	IV/CIVIL	9	90	17	68	79
28	912615103006	ELAMATHI .G	IV/CIVIL	10	100	19	76	88
29	912615103007	ELANTHENDRAL .N	IV/CIVIL	10	100	21	84	92
30	912615103008	GAYATHRI .R	IV/CIVIL	10	100	20	80	90
31	912615103009	GOMATHI .S	IV/CIVIL	9	90	18	72	81
32	912615103010	HARITHA .S	IV/CIVIL	9	90	19	76	83
33	912615103011	KARTHIKA .T	IV/CIVIL	10	100	21	84	92
34	912615103012	MADHUMITHA .M	IV/CIVIL	8	80	17	68	74
35	912615103013	RAIHANAJASMINE .A.S	IV/CIVIL	9	90	22	88	89

  
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36	912615103014	RASIKA .R	IV/CIVIL	10	100	21	84	92
37	912615103015	SYED ALI FATHIMA .G	IV/CIVIL	9	90	20	80	85
38	912615103016	VAITHEGI .V	IV/CIVIL	8	80	21	84	82
39	912615103302	SURIYA T	IV/CIVIL	9	90	20	80	85
40	912615103303	VANMATHI M	IV/CIVIL	8	80	18	72	76

  
VAC Coordinator

  
HoD/Civil  
HOD / CIVIL  
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**Criteria 2**

**Teaching-Learning and Evaluation**

**350**

**Key Indicator- 2.3. Teaching- Learning Process (40)**

**2018-2019**

**CIVIL ENGINEERING**

**PARTICIPATIVE LEARNING**

**SYMPOSIUM**



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## DEPARTMENT OF CIVIL ENGINEERING

List of Civil Engineering Students Attended

Symposium/Workshop/Seminar/Conference-Participative learning

Academic Year 2018-2019

S.No	Register No	Student Name	Year/Sem	Name of the Learning Method
1	912615103008	Gayathri.R	IV/VIII	Symposium
2	912615103302	Suriya.T	IV/VIII	

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DIRECTORATE OF TECHNICAL EDUCATION, CHENNAI-600 025  
 GOVERNMENT COLLEGE OF ENGINEERING, THANJAVUR-613 402  
 DEPARTMENT OF CIVIL ENGINEERING

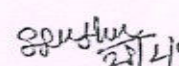


# Certificate Of Appreciation

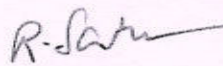
This is to certify that Mr/Ms. R. GAYATHRI of  
SRIBHARATHI CLG OF ENGG FOR WOMEN has Won/Participated  
 ————— in the event PAPER PRESENTATION held as a  
 part of National Level Technical Symposium Crepido19,  
 Organized By  
SOCIETY FOR THE ADVANCEMENT OF CIVIL ENGINEERS

on 28<sup>th</sup> February 2019

  
 Dr. S. THILAGAVATHI M.E., Ph.D.,  
 PRINCIPAL  
 SRI BHARATHI ENGINEERING  
 COLLEGE FOR WOMEN  
 Kaikkurchi - 622 303, Pudukkottai Dt.

  
 CO-ORDINATOR

  
 HOD/CIVIL

  
 PRINCIPAL

SPONSERED BY : CADD CENTRE , THIRUVERUMBUR CADD CENTRE



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**RAJAMADAM - 614 701, THANJAVUR-DIST**



# PILLARZ 2K19

THE NATIONAL LEVEL TECHNICAL SYMPOSIUM

## Certificate Of Merit

This certificate is awarded to Mr./Mrs. ....*T. SURYA*.....for being the

Winner / Runner / Participant in....*TECHNICAL QUIZ*.....

event during “PILLARZ 2K19” a national Level Technical Symposium organised by  
 Department of Civil Engineering on 15<sup>th</sup> Feb 2019 at University College of Engineering

Pattukkottai.

*M. Lakshmi Devi*  
 CO-ORDINATOR

*D. M.*  
 HOD

*[Signature]*  
 Dr. S. THILAGAVATHI M.E., Ph.D.,  
 PRINCIPAL  
 SRI BHARATHI ENGINEERING  
 COLLEGE FOR WOMEN  
 Kaikkurchi - 622 303, Pudukkottai

*[Signature]*  
 DEAN