



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

NAAC DOCUMENTS



Quality Indicator Frame Work

Criterion – 1

CURRICULAR ASPECTS

Submitted by

IQAC

Internal Quality Assurance Cell

Sri Bharathi Engineering College for Women



SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN
Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25
KAIKKURUCHI, PUDUKOTTAI – 622 303
DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2018-2019 / EVEN 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

VAC 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				

TABLE OF CONTENTS

SNO	DOCUMENT	PAGE-NO
1	Certificate Course Circular	3-3
2	Certificate Course Schedule	4-4
3	List of students participants	5-6
4	Attendance Of Students	7-9
5	Certificate Course Report	10-10
6	Course Completion Certificates	11-13
7	Certificate Course Test Paper	14-16
8	Certificate Course Answer Key	17-17
9	Certificate Course Test Answer Sheet-Sample	18-26
10	Certificate Course Mark Statement	27-30



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

Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
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”

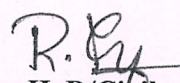
SYLLABUS

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
Total Hours		30	


VAC Coordinator



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


HoD/Civil
HOD / CIVIL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
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 SEM)

STUDENTS PARTICIPATION LIST-VAC PROGRAM

Quality Assurance and Quality Control in Civil Engineering

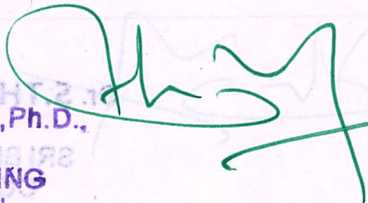
S.NO	REG.NO	NAME OF THE STUDENT	YEAR/BRANCH
1	912617103001	CHANDRIKA.C	II/CIVIL
2	912617103002	DHESIKAPARTHI.D	II/CIVIL
3	912617103003	KARTHIKA.K	II/CIVIL
4	912617103004	KASTHURI.K	II/CIVIL
5	912617103005	MONIKA.K	II/CIVIL
6	912617103006	MUTHUMEENA.P	II/CIVIL
7	912617103007	POTHUMPEN.A	II/CIVIL
8	912617103008	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

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

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


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

HOD / CIVIL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURCHI,
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

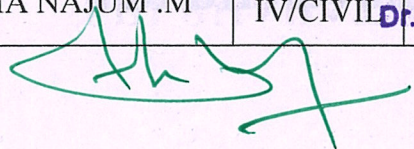
ACADEMIC YEAR 2018-2019 (EVEN SEM)

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	Priyadharshini.S.
9	912617103009	RAJESWARI.J	II/CIVIL	/	/	/	/	/	/	/	/	/	/	10	Rajeswari.J.

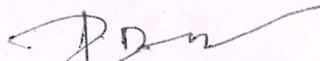
Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai, Dt.


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 G.
13	912616103002	ANANTHI.S	III/CIVIL	/	a	/	/	/	a	/	/	/	/	/	8	Ananthi S.
14	912616103004	KANIMOZHI.P	III/CIVIL	/	/	/	/	/	/	/	a	/	/	/	9	Kanimozhi P.
15	912616103005	LAVANYA.K	III/CIVIL	/	/	/	a	/	/	/	/	/	/	/	9	Lavanya K.
16	912616103006	MASILAMANI.M	III/CIVIL	/	/	/	/	/	/	/	/	/	/	/	10	Masilamani M.
17	912616103007	MENAKA.R	III/CIVIL	/	/	/	/	/	/	/	/	/	/	/	10	Menaka R.
18	912616103008	PRAVEENA.M	III/CIVIL	/	/	/	/	/	/	/	/	/	/	/	10	Praveena M.
19	912616103301	GOWSIKA N	III/CIVIL	/	a	/	/	/	/	/	/	/	/	/	9	Gowsika N.
20	912616103302	KALISWARI M	III/CIVIL	/	/	/	/	/	/	/	a	/	/	/	9	Kaliswari M.
21	912616103303	MAHESWARI M	III/CIVIL	/	/	/	/	/	/	/	/	/	/	/	10	Maheswari M.
22	912616103304	SARATHAPRITHA S	III/CIVIL	/	/	/	/	/	a	/	/	/	/	/	9	Sarathapriya S.
23	912616103501	VISALATCHI P	III/CIVIL	/	/	/	/	/	/	/	/	/	/	/	10	Visalatchi P.
24	912615103001	ABINAYA .S	IV/CIVIL	/	/	/	a	/	/	/	/	/	/	/	9	Abinaya S.
25	912615103002	ALAMELU MANGAI .M	IV/CIVIL	/	a	/	/	/	/	/	/	/	a	/	8	Alamelu Mangai M.
26	912615103004	ANANTHI .V	IV/CIVIL	/	/	/	a	/	a	/	/	/	/	/	8	Ananthi V.
27	912615103005	AYESHA NAJUM .M	IV/CIVIL	/	/	/	/	/	/	/	a	/	/	/	9	Ayeshanajum M.



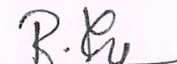
Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL

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	Vaithegi
39	912615103302	SURIYA T	IV/CIVIL	/	/	/	/	/	/	a	/	/	/	9	Suriya
40	912615103303	VANMATHI M	IV/CIVIL	/	/	/	a	/	/	/	/	/	a	8	Vanmathi


VAC Coordinator



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


HoD/Civil
HOD / CIVIL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURCHI,
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

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

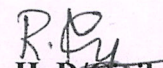
- Improve the management of material for construction project.
- Minimise the repetition of past failure.
- Learn from other people's experiences to avoid pitfalls and to minimize the repetitions of errors.
- Identify specific design, process or decision that reduces or eliminates the potential for failures.
- 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.

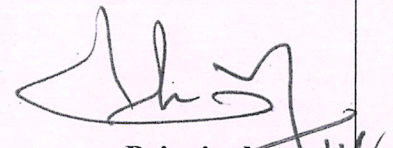
No. of students successfully completed the VAC course is **40 students** based on the following assessment process.

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)

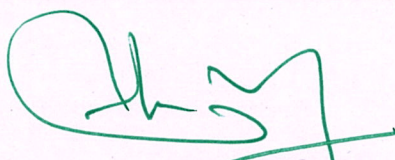

VAC Coordinator


HoD/Civil
HOD / CIVIL


Principal
PRINCIPAL

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

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



Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
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.

Dr. S:THILAGAVATHI M.E.,Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
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.

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

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.

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

Site Engineer,
Golden Bell Constructions.



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

Name of the Student :

Year/Sem:

AU Register Number:

Value Added Course on

“Quality Assurance and Quality Control in Civil Engineering”

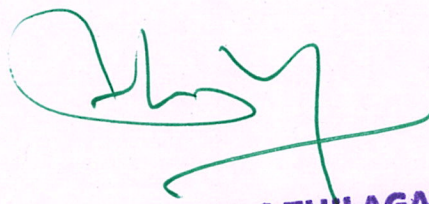
MCQ QUESTIONS (25X4 = 100 Marks)

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

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

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



Dr. S:THILAGAVATHI M.E.,Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 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.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 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

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

Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL

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

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


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

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


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

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?
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

Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL

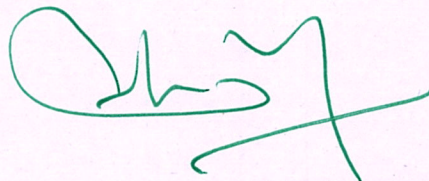
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.

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


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

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

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



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

18
25

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)

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

[Handwritten signature]

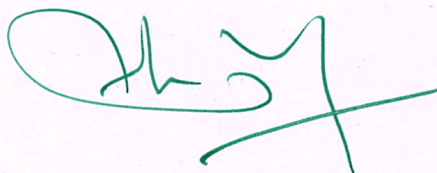
Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.

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


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

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

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



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

கைக்கரீச்சி - 622 303 புதுக்கோட்டை டி
 COLLEGE FOR WOMEN
 சரீ பறாத்தி இஞ்ஜீனரீங்
 பீரிசீயீட்
 டீ 2 டீரிஜீயல் பீரிசீயீட்



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 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

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

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

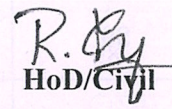

Dr. S.THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kalkkurchi - 622 303, Pudukkottai Dt.

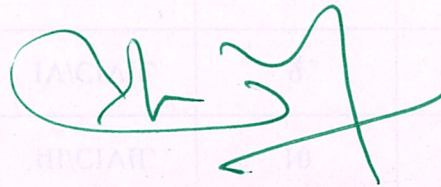
22	912616103304	SARATHAPRITHA S	III/CIVIL	9	90	18	72	81
23	912616103501	VISALATCHI P	III/CIVIL	10	100	19	76	88
24	912615103001	ABINAYA .S	IV/CIVIL	9	90	20	80	85
25	912615103002	ALAMELU MANGAI .M	IV/CIVIL	8	80	21	84	82
26	912615103004	ANANTHI .V	IV/CIVIL	8	80	22	88	84
27	912615103005	AYESHA NAJUM .M	IV/CIVIL	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


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

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



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