

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

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NAAC DOCUMENTS



Quality Indicator Frame Work

Criterion – 1

CURRICULAR ASPECTS

Submitted by

IQAC Internal Quality Assurance Cell

Sri Bharathi Engineering College for Women



ACADEMIC YEAR 2020-2021 / ODD SEMESTER

1.2 Academic Flexibility (30)

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

AND

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

VAC Title:	SMA	ART M	ATERIA	ALS AND N	MEAS	SURIN	NG TECHI	NIQUES		
	I			l, B.E., M.S		ev).,				
Resource Per	Resource Person: Site Engineer & Supervisor, Kamaal Constructions,									
	Aranthangi.									
Date of cond	uct fro	om :	30.11.202	20	To:	05.12	2.2020	Duration:	36 H	ours
Organized D	epartn	nent :	CIVIL E	NGINEERIN	G					
Participant	Participant 2/ 3 /4 Semester: ODD No. of Students Registered : 27									
Year:								8		
Venue: Or	Venue: Online mode Google Meet: <u>https://meet.google.com/qbb-gung-rps</u>									

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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 2020-2021 / ODD SEMESTER

Date: 25/11/2020

DEPARTMENT CIRCULAR

Value added course offered by the Department of Civil Engineering for all Second, Third & Final year Civil Engineering students on **"Smart Materials and Measuring Techniques"** by **Kamaal Constructions** from 30.11.2020 to 05.12.2020 through online platform. Certificates will be issued to the eligible participants at the end of the Course.

S.No.	Name of the Course	Resource Person
1.	Smart Materials and Measuring Techniques	Er.M.Sakthivel, B.E., M.Sc (Rev)., Site Engineer & Supervisor, Kamaal Constructions, Aranthangi.

Hod/Civit

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

KAIKKURICHI.

PUDUKKOTTAI - 622 303

HOD /

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

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



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DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2020-2021 / ODD SEMESTER

Value Added Course on "Smart Materials and Measuring Techniques"

SYLLABUS

S.NO	TOPIC COVERED	DURATION (in hours)	DATE
1	Introduction to Smart Materials and Structures	3	30.11.2020
2	Instrumented structures functions and response	3	30.11.2020
3	Strain Measuring Techniques using Electrical strain gauges	3	01.12.2020
4	Wheatstone bridges, Strain Rosettes	3	01.12.2020
5	Physical Measurement using Piezo Electric Strain measurement	3	02.12.2020
6	Chemical and Bio-Chemical sensing in structural Assessment	3	02.12.2020
7	Actuator materials applications	3	03.12.2020
8	Electro magnetic actuation	3	03.12.2020
9	Data Acquisition and Processing in smart materials	3	04.12.2020
10	Sensors as Geometrical Processors	3	04.12.2020
11	Constant Voltage, Constant Current and Pulse Drive Methods	3	05.12.2020
12	Linear and Non-Linear, Passive, Semi-Active and Active Control, Feedback and Feed forward Control Strategies	3	05.12.2020
	Total Hours	36	-

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 Kaikkurchi - 622 303, Pudukkottai Dt.



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DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2020-2021 (ODD SEM) STUDENTS PARTICIPATION LIST-VAC PROGRAM SMART MATERIALS AND MEASURING TECHNIQUES

S.NO	REG.NO	NAME OF THE STUDENT	YEAR/BRANCH
1	912619103001	AJITHA T	II/CIVIL
2	912619103002	ARULJENIFAR C	II/CIVIL
3	912619103003	DIVYAV	II/CIVIL
4	912619103004	MANGAIYARKARASI G	II/CIVIL
5	912619103005	MUTHULAKSHMI S	II/CIVIL
6	912619103006	PRAVEENA S	II/CIVIL
7	912619103007	PRIYADHARSHINI K	II/CIVIL
8	912619103009	RAGAVI V	II/CIVIL
9	912619103010	RAJATHI T	II/CIVIL
10	912619103301	LILLY JOHN J	II/CIVIL
11	912619103302	BHUVANI S	II/CIVIL
12	912618103003	MAHESHWARI V	III/CIVIL
13	912618103005	MEENACHI K	III/CIVIL
14	912618103008	SATHYA M	III/CIVIL
15	912618103009	SRIVIDHYA S	III/CIVIL
16	912618103010	UMAMAHESWARI K	III/CIVIL
17	912617103001	CHANDRIKA C	IV/CIVIL
18	912617103002	DHESIKAPARTHI D	IV/CIVIL

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

19	912617103003	KARTHIKA K	IV/CIVIL
20	912617103004	KASTHURI K	IV/CIVIL
21	912617103005	MONIKA K	IV/CIVIL
22	912617103006	MUTHUMEENA P	IV/CIVIL
23	912617103007	POTHUMPEN A	IV/CIVIL
24	912617103008	PRIYADHARSHINI S	IV/CIVIL
25	912617103009	RAJESWARI J	IV/CIVIL
26	912617103010	SIVAPRIYA S	IV/CIVIL
27	912617103701	LAKSHMI A	IV/CIVIL

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 Kaikkurchi - 622 303, Pudukkotlai Dt.

CH. S. THILAGAVATHI M.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kalksurchi - 522 303, Pudukotal DL



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DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2020-2021 (ODD SEM)

ATTENDANCE SHEET FOR VALUE ADDED COURSE- SMART MATERIALS AND MEASURING TECHNIQUES

REG.NO	NAME OF THE	YEAR/							1					1	NO OF SESSIONS
912617103007	STUDENT	BRANCH	FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	ATTENDED
912619103001	АЛТНА Т	II/CIVIL	1	. 1	1	1	1.	1:	1	1	1	1	r	a	11
912619103002	ARULJENIFAR C	II/CIVIL	1	a	1	1	1	1	1	1	1	1	1	1	11
912619103003	DIVYA V	II/CIVIL	1	,	,	1	1	a	1	a	1	1	1		10
912619103004	MANGAIYARKARASI G	II/CIVIL)	1	1	1	1	. 1	1	1	1	a	1	1	15
912619103005	MUTHULAKSHMI S	II/CIVIL	1	1	1	1	1	1	1	1	1	1	1	1	12
912619103006	PRAVEENA S	II/CIVIL)	a	1	a	1	1	1	1	1	1	1	1	10
912619103007	PRIYADHARSHINI K	II/CIVIL	1	1	1	1,	1	a	1	1	1	1	1	1	tI
912619103009	RAGAVI V	II/CIVIL	1	1	1	;	,	1	1	1	1	a	1	1	11
912619103010	RAJATHI T	II/CIVIL	1	1	1	1	1	1	1	a	1	1	1	a	10
912619103301	LILLY JOHN J	II/CIVIL		The	460	AT	ai ka n	. Ph.	1	1	1	1	1	1	11
912619103302	BHUVANI S	II/CIVIL	,		PRI	VCIPA			,	1	1	a	1	1	19
	REG.NO 912619103001 912619103002 912619103003 912619103004 912619103005 912619103006 912619103007 912619103007 912619103009 912619103010 912619103010 912619103301	REG.NONAME OF THE STUDENT912619103001AJITHA T912619103002ARULJENIFAR C912619103003DIVYA V912619103004MANGAIYARKARASI G912619103005MUTHULAKSHMI S912619103006PRAVEENA S912619103007PRIYADHARSHINI K912619103009RAGAVI V912619103010LILLY JOHN J	REG.NONAME OF THE STUDENTYEAR/ BRANCH912619103001AJITHA TII/CIVIL912619103002ARULJENIFAR CII/CIVIL912619103003DIVYA VII/CIVIL912619103004MANGAIYARKARASI GII/CIVIL912619103005MUTHULAKSHMI SII/CIVIL912619103006PRAVEENA SII/CIVIL912619103007PRIYADHARSHINI KII/CIVIL912619103008RAGAVI VII/CIVIL912619103009RAJATHI TII/CIVIL912619103001LILLY JOHN JII/CIVIL	REG.NONAME OF THE STUDENTYEAR/ BRANCH30.1912619103001AJITHA TII/CIVIL/912619103002ARULJENIFAR CII/CIVIL/912619103003DIVYA VII/CIVIL/912619103004MANGAIYARKARASI GII/CIVIL/912619103005MUTHULAKSHMI SII/CIVIL/912619103006PRAVEENA SII/CIVIL/912619103007PRIYADHARSHINI KII/CIVIL/912619103009RAGAVI VII/CIVIL/912619103010RAJATHI TII/CIVIL/912619103302BHUVANI SAII/CIVIL/	REG.NONAME OF THE STUDENTYEAR/ BRANCH30.1.20912619103001AJITHA TII/CIVILIN912619103002ARULJENIFAR CII/CIVILI912619103003DIVYA VII/CIVILI912619103004MANGAIYARKARASI GII/CIVILI912619103005MUTHULAKSHMI SII/CIVILI912619103006PRAVEENA SII/CIVILI912619103007PRIYADHARSHINI KII/CIVILI912619103008RAGAVI VII/CIVILI912619103009RAGAVI VII/CIVILI912619103010BHUVANI SII/CIVILI912619103302BHUVANI SII/CIVILI	REG.NONAME OF THE STUDENTYEAR/ BRANCH30.1.2001.1912619103001AJITHA TII/CIVIL1NN912619103002ARULJENIFAR CII/CIVIL10.11912619103003DIVYA VII/CIVIL10.21912619103004MANGAIYARKARASIII/CIVIL111912619103005MUTHULAKSHMI SII/CIVIL111912619103006PRAVEENA SII/CIVIL111912619103007PRIYADHARSHINI KII/CIVIL111912619103008RAGAVI VII/CIVIL111912619103009RAGAVI VII/CIVIL111912619103000RAJATHI TII/CIVIL111912619103001BHUYANI SII/CIVIL111912619103302BHUYANI SII/CIVIL111	REG.NONAME OF THE STUDENTYEAR/ BRANCH30.1.2001.1.20912619103001AJITHA TII/CIVILINANFNAN912619103002ARULJENIFAR CII/CIVILIIIII912619103003DIVYA VII/CIVILIIIIII912619103004MANGAIYARKARASI GII/CIVILIIIIII912619103005MUTHULAKSHMI SII/CIVILIIIIII912619103006PRAVEENA SII/CIVILIIIIII912619103007PRIYADHARSHINI KII/CIVILIIIIII912619103008RAGAVI VII/CIVILIIIIII912619103009RAGAVI VII/CIVILIIIIII912619103001BAJATHI TII/CIVILIIIIII912619103302BHUYANI SII/CIVILIIIIII	REG.NO NAME OF THE STUDENT YEAR/ BRANCH $30.1.20$ $01.2.20$ 02.1 912619103001 AJITHA T II/CIVIL I	REG.NO NAME OF THE STUDENT YEAR/ BRANCH 30.1 \cdot 0 01.2 \cdot 02.1 \cdot 00.1 912619103001 AJITHA T II/CIVIL I N	REG.NO NAME OF THE STUDENT YEAR/ BRANCH $30.1.20$ $01.2.20$ $02.1.20$ $03.1.20$ 912619103001 AJITHA T II/CIVIL IN AN FN FN FN FN FN FN FN FN FN </td <td>REG.NO NAME OF THE STUDENT YEAR/ BRANCH $30.1 \cdot 20$ $01.2 \cdot 20$ $02.1 \cdot 20$ $03.1 \cdot 20$ 912619103001 AJITHA T II/CIVIL 1 N N</td> <td>REG.NO NAME OF THE STUDENT YEAR/ BRANCH $30.1.20$ $01.2.20$ $02.1.20$ $03.1.20$ $04.1.20$ 912619103001 AJITHA T II/CIVIL 1 N N</td> <td>REG.NO NAME OF THE STUDENT YEAR/ BRANCH 30.1.20 91.2.20 93.2.20 94.2.20 912619103001 AJITHA T II/CIVIL I AN FN AN FN</td> <td>REG.NO NAME OF THE STUDENT YEAR/ BRANCH $30.1-20$ $01.2-20$ $0.1-2-0$ $0.1-2-0$</td> <td>REG.NO NAME OF THE STUDENT YEAR/ BRANCH $30.1 - 20$ $01.2 - 20$ $03.1 - 20$ $04.1 - 20$ $05.1 - 20$ 912619103001 AJITHA T II/CIVIL 1 N N<!--</td--></td>	REG.NO NAME OF THE STUDENT YEAR/ BRANCH $30.1 \cdot 20$ $01.2 \cdot 20$ $02.1 \cdot 20$ $03.1 \cdot 20$ 912619103001 AJITHA T II/CIVIL 1 N	REG.NO NAME OF THE STUDENT YEAR/ BRANCH $30.1.20$ $01.2.20$ $02.1.20$ $03.1.20$ $04.1.20$ 912619103001 AJITHA T II/CIVIL 1 N	REG.NO NAME OF THE STUDENT YEAR/ BRANCH 30.1.20 91.2.20 93.2.20 94.2.20 912619103001 AJITHA T II/CIVIL I AN FN AN FN	REG.NO NAME OF THE STUDENT YEAR/ BRANCH $30.1-20$ $01.2-20$ $0.1-2-0$	REG.NO NAME OF THE STUDENT YEAR/ BRANCH $30.1 - 20$ $01.2 - 20$ $03.1 - 20$ $04.1 - 20$ $05.1 - 20$ 912619103001 AJITHA T II/CIVIL 1 N </td

12	912618103003	MAHESHWARI V	III/CIVIL	1	1	1	a	1	1	1	a	1	1	1	1	to
13	912618103005	MEENACHI K	III/CIVIL	1	1	1	1	1	1	1	1	1	1	1	1	12
14	912618103008	SATHYA M	III/CIVIL	1	1	1	1	1	1	1	1	1	1	1	4	12
15	912618103009	SRIVIDHYA S	III/CIVIL	1	1	1.	1	1	1	1	1	1	1	1	1	12
16	912618103010	UMAMAHESWARI K	III/CIVIL	1	1	1	1	1	1	1	1	1	1	1	à	11
17	912617103001	CHANDRIKA C	IV/CIVIL	1	1	1	1	1	1	1	1	1	1	1	1	12
18	912617103002	DHESIKAPARTHI D	IV/CIVIL	1	1	1	1	1	1	1	1	1	1	1	1	12
19	912617103003	KARTHIKA K	IV/CIVIL	1	1	1	1	1	1	1	1	1	1	1	1	12
20	912617103004	KASTHURI K	IV/CIVIL	1	1	1	1	1	1	1	a	1	1	r	1	[]
21	912617103005	MONIKA K	IV/CIVIL	1	1	;	1	1	1	1	1	1	a	1	1	()
22	912617103006	MUTHUMEENA P	IV/CIVIL	1	1	1	1	1	1	1	1	1	1	1	1	12
23	912617103007	POTHUMPEN A	IV/CIVIL	1	1	1	1	1	a	1	1	1	1	1	1	viether
24	912617103008	PRIYADHARSHINI S	IV/CIVIL	1	a	1	1	1	1	1	1	1	a	1	1	10
25	912617103009	RAJESWARI J	IV/CIVIL	1	1	1	1	1	1	1	1	1	1	1	1	12
26	912617103010	SIVAPRIYA S	IV/CIVIL	1	1	1	a	1	1	1	1	1	1	1	1	11
27	912617103701	LAKSHMI A	IV/CIVIL	100	1	1	,	1	1	1	1	1	1	1	1	12

Kalkkurahi - 622 303, Pudukkodan Di

VAC Coordinator

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

R 2026-2021 (ODD SEM)

HoD/Civil HOD / CIVIL

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



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

		Rep	ort on	Value	Add	ed Cou	irse		
Title:	Smart Ma	aterials a	and Meas	uring Te	chniqu	ies			
	E	r.M.Sak	thivel, B	.E. M.S	c (Rev	·)			
	C		neer & Si			/•,			
Resource	CISUII.	-	Constructi	-	-,				
		ranthan		10115,					
Date of co	nduct from :		.2020	To:	05.12.	2020	Duration:	36 Hou	rs
	Department		IL ENGI					50 1104	
Participan		-	mester:	ODD		No. of Stu	idents Registe	ered : 27	7
Venue:	Online mod	le Google	Meet: ht	tns://mee				·	
							rse, Students c	an able 4	
 the c Desc devi Deri Iden appl No. of 	utting-edge ribe and iden ces using sm ve conceptua tify, select an ication areas	developm ntify the l art mater al designs nd use sm ccessfully	hents in sm basic fabric ials. for the pro- hart materia completed	art materi cation and oduction o als for the	als for e charact of engine fabricat	engineering cerization to cering devi cion of eng is <u>27 stud</u>	, and methodo g systems. echniques of l ices using sma ineering devic <u>ents</u> based on	Engineeri art materi ces in diff	ing ials. ferent
eligible	to receive th	ne certific	n 60% on the	total sco VAC cou	ore and urse cond	secured m ducted	ore than 75%		
	rks) AC Coordina HIM.E.,Ph.		С	BHARATH	I ENGIN	IEERING DMEN			VOMEN
PRINCIP ARATHI EN LEGE FOR	GINEERING								



2 8 2 2

24/4, Athippa Complex, Bharathidasan Street, Aranthangi-614616

Er. S. Rawuther Appa B. E., M. Sc. (REV)

Licensed Building Surveyor

CERTIFICATE OF PARTICIPATION

This is to certify that Ms.Ajitha T of II Year B.E-Civil Engineering, Sri Bharathi Engineering College for Women, Pudukkottai has successfully completed the Value Added course on "Smart Materials And Measuring Techniques" conducted from 30.11.2020 to 05.12.2020 (6days) during the Academic year 2020-2021.

Dr. S.THILAGAVATHIM.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt. KK + - of the the the the the

Er. S. Rawuther Appa B. E., M. Sc. (REV) Licensed Building Surveyor



KAMAAL CONSTRUCTION

St

24/4, Athippa Complex, Bharathidasan Street, Aranthangi-614616

Er. S. Rawuther Appa B. E., M. Sc. (REV)

Licensed Building Surveyor

CERTIFICATE OF PARTICIPATION

This is to certify that Ms.Meenachi K of III Year B.E-Civil Engineering, Sri Bharathi Engineering College for Women, Pudukkottai has successfully completed the Value Added course on "Smart Materials And Measuring Techniques" conducted from 30.11.2020 to 05.12.2020 (6days) during the Academic year 2020-2021.

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

Er. S. Rawuther Appa B. E., M. Sc. (REV) Licensed Building Surveyor



KAMAAL CONSTRUCTION

St

24/4, Athippa Complex, Bharathidasan Street, Aranthangi-614616

Er. S. Rawuther Appa B. E., M. Sc. (REV)

Licensed Building Surveyor

CERTIFICATE OF PARTICIPATION

This is to certify that Ms.Karthika K of IV Year B.E-Civil Engineering, Sri Bharathi Engineering College for Women, Pudukkottai has successfully completed the Value Added course on "Smart Materials And Measuring Techniques" conducted from 30.11.2020 to 05.12.2020 (6days) during the Academic year 2020-2021.

Dr. S.THILAGAVATHIM.E., Ph.D., PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt. the the 23

Er. S. Rawuther Appa B. E., M. Sc. (REV) Licensed Building Surveyor

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DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2020-2021 / ODD SEMESTER

Name of the Student :

Year/Sem:

AU Register Number:

Value Added Course on "Smart Materials and Measuring Techniques"

MCQ QUESTIONS (25X4 = 100 Marks)

- 1. Monel metal is an alloy of
 - a) Molybdenum and nickel
 - b) Nickel and copper

- c) Molybdenum and aluminiumd) Molybdenum and zinc
- 2. Thermoplastic resins are those polymers, which
 a) Has decreased plasticity at increasing temperature
 b) Cannot be moulded

c) Easily deform under pressure at high temperatured) None of these

- 3. Constantan used in thermocouples is an alloy of
 - a) Iron & copper
 - b) Copper & aluminium

c) Lead & tind) None of these

c) Artificial ageing

c) Martensite

d) None of these

d) Solution annealing

4. The heat treatment process applied to cold formed steel parts is

- a) Normalizing
- b) Tempering
- 5. A hardened steel essentially contains
 - a) Sorbite b) Troostite

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6. Silicone rubber is not resistant to the corrosive action of
a) Sulphuric acid (10%)
b) Sulphuric acid (95%)
c) Ether
d) Both (b) and (c)

- 7. Which of the following mechanical properties of a material is most structure insensitive?
 a) Modulus of elasticity (young's modulus)
 b) Toughness
 c) Percentage reduction of area
 d) Tensile strength
- 8. Carbon percentage in medium carbon steel is arounda) 0.1 to 0.35c) 0.8 to 1.4

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

b) 0.35 to 0.5 d) 1 to 1.5 9. Aluminium as a material of construction suffers from the disadvantage of a) Very high cost c) Very low strength to weight ratio b) Rather low tensile strength d) Scarce availability 10. Coke oven regenerators are made of bricks. c) Low thermal conductivity a) Fire clav d) High electrical conductivity b) Silica 11. Perspex is nothing but c) An alloy of lead and tin a) Acrylic sheet d) Aluminium foil clad with Bakelite b) An elastomer 12. Cementite is c) Characterized by an orthorhombic crystal a) Fe₃C chemically structure b) A compound of carbon and iron d) All (a), (b) and (c)13. High degree of toughness is a must for a) High speed steel c) Cold work tool steel b) Cold work tool steel d) None of these 14. The phenomenon in which slow extension of material takes place with the time at constant load is called Diameter of Round Steel Fiber lies in the range of mm a) Plasticity c) Elasticity b) Creep d) Ductility 15. Ability of a material to be is indicated by its damping capacity. c) Absorb shock a) Withstand compression d) None of these b) Absorb vibration 16. A material is called 'ductile', if it can c) Fractured without deformation a) Drawn into wires b) Hammered to a thin sheet d) Made lustrous by heating it 17. Presence of manganese in alloy steel improves its a) Corrosion resistance c) Abrasion resistance & toughness d) Elasticity & creep resistance b) Cutting ability 18. Which of the following undergoes granular fracture? c) Cast iron a) Wrought iron b) Steel d) None of these 19. The most distinguished property of malleable cast iron is its high c) Malleability a) Ductility d) None of these b) Hardness 20. Teflon (PTFE) is corroded by AGAVATHI M.E., R.D. DL S.THILAGAVATHIME.Ph.D Dr. S.THIL PRINCIPAL

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a) Hydrochloric acid (10%)

b) Hydrochloric acid (95%)

c) Sulphuric acidd) None of these

- 21. Amount of energy that a material can absorb before its fracture is a measure of its
 - a) Toughnessb) Resilience

c) Malleabilityd) Ductility

- 22. Vycor, a widely used material for making 'thermal wells' in temperature measurement, is aa) Cermetb) Characterization (Content of the content of the content
 - b) Glass

d) Metallic alloy

23. Karbate is

a) A mixture of iron dust and saw dustb) Carbon impregnated with resin (usually Bakelite)

c) An acid resistant materiald) Both (b) and (c)

- 24. Invar used in thermocouples is an alloy of nickel and
 - a) Iron
 - b) Copper

- c) Chromium d) Lead
- 25. Ball bearings are generally made of
 - a) Plain carbon steel
 - b) Chrome carbon steel

c) Stainless steeld) Malleable cast iron

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DEPARTMENT OF CIVIL ENGINEERING

ACADEMIC YEAR 2021-2022 / ODD SEMESTER

Value Added Course on "Smart Materials and Measuring Techniques"

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

ANSWER KEY

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Name: V. Ragavi Reg. NO: 912619103009 MCB Test-Smart materials & Measuring Techniques T) 2) C 3 Ð 4 D-5 CN D. 6 bx 1 8 b-9 6 10 a 11 a 12 de 13 CX 14 6. 15 6 16 a C. 17 18 b CX 19 20 d 21 a 22 6, 23 d Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL 24 a SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt. 25 6/

Name : K. Kasthurie Reg. No : 912617103004

Value Added Course MCQ Test - Smart materials and measuring techniques 6 () bx 2) 3) bx 4) d-5) C / d/ 6) 7) an 8) 61 9) 5/ a (0) 1) CX d 12) 13) 6-14) 6/ 15) 6 (6) a/ c/ 17) 6/ 18) F) C X 20) d Dr. S.THILAGAVATHI M.E., Ph.D., 21) a-PRINCIPAL **SRI BHARATHI ENGINEERING** 22) 6 -**COLLEGE FOR WOMEN** Kaikkurchi - 622 303, Pudukkottai Dt. 23) 6~ 24) a 25) 6

Name: Umamahesh parite MCQ Test on value added Smant materials & Measuring Techniques. Reg NO : 912618103010 1) 6/ d1) a 1 2) c 1 227 6/ 3) 0/ 23) d/ Alex 5) C/ 24) a 6) d 251.5 7) a/ 8) 5 / 9) C X 10) a ~ 11) bx 12) d/ 13) 6 / 14) CX 15) 6/ 167 a 17) ad 18) 5) / Dr. S.THILAGAVATHI M.E., Ph.D., 19) C/ PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN 20)0/ Kaikkurchi - 622 303, Pudukkottai Dt.



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ACADEMIC YEAR 2020-2021 (ODD SEM)

MARK SHEET FOR VALUE ADDED COURSE- SMART MATERIALS AND MEASURING TECHNIQUES

1 -	012618103000	SRUVIDED A.S.	HPC PAR	ATTENDAN	CE DETAILS	VAC-M	CQ TEST	OVERALL
S.NO	REG.NO	NAME OF THE STUDENT	· YEAR/ BRANCH	No of Sessions	Attendance Mark(100)	No of Correct	MCQ Mark(100)	MARK(100) (50% of A +
13	013844166082	VREXXEN X	HARAN.	Attended	(A)	Answers	(B)	50% of B)
1	912619103001	АЈІТНА Т	II/CIVIL	11	92	20	80	86
2	912619103002	ARULJENIFAR C	II/CIVIL	, 11	92	21	84	88
3	912619103003	DIVYA V	II/CIVIL	10	83	18	72	78
4	912619103004	MANGAIYARKARASI G	II/CIVIL	11	92	19	. 76	84
5	912619103005	MUTHULAKSHMI S	II/CIVIL	12	100	20	80	90
6	912619103006	PRAVEENA S	II/CIVIL	10	83	19	76	80

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7	912619103007	PRIYADHARSHINI K	II/CIVIL	11	92	21	84	88
8	912619103009	RAGAVI V	II/CIVIL	11	92	22	88	90
9.	912619103010	RAJATHI T	II/CIVIL	10	83	17	68	76
10	912619103301	LILLY JOHN J	II/CIVIL	11	92	.19	76	84
11	912619103302	BHUVANI S	II/CIVIL	11	92	17	68	80
12	912618103003	MAHESHWARI V	III/CIVIL	10	83	17	68	76
13	912618103005	MEENACHI K	III/CIVIL	12	100	20	80	90
14	912618103008	SATHYA M	III/CIVIL	12	100	21	84	92
15	912618103009	SRIVIDHYA S	III/CIVIL	12	100	22	88	94
16	912618103010	UMAMAHESWARI K	III/CIVIL		92	20	80	86
17	912617103001	CHANDRIKA C	IV/CIVIL	12	100	22	88	94
18	912617103002	DHESIKAPARTHI D	IV/CIVIL	12	100	20	80	90
19	912617103003	KARTHIKA K	IV/CIVIL	12	100	22	88	94
20	912617103004	KASTHURI K	IV/CIVIL	11 HILAGAVAT	92	20	80	86

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21	912617103005	MONIKA K	IV/CIVIL	11	92	21	84	88
22	912617103006	MUTHUMEENA P	IV/CIVIL	12	100	.22	88	94
23	912617103007	POTHUMPEN A	IV/CIVIL	11	92	20	80	86
24	912617103008	PRIYADHARSHINI S	IV/CIVIL	10	83	19	76	80
25	912617103009	RAJESWARI J	IV/CIVIL	12	100	23	92	96
26	912617103010	SIVAPRIYA S	IV/CIVIL	11	92	20	80	86
27	912617103701	LAKSHMI A	IV/CIVIL	12	100	21	84	92

= P.2 VAC Coordinator

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