

SRI BHARATHI

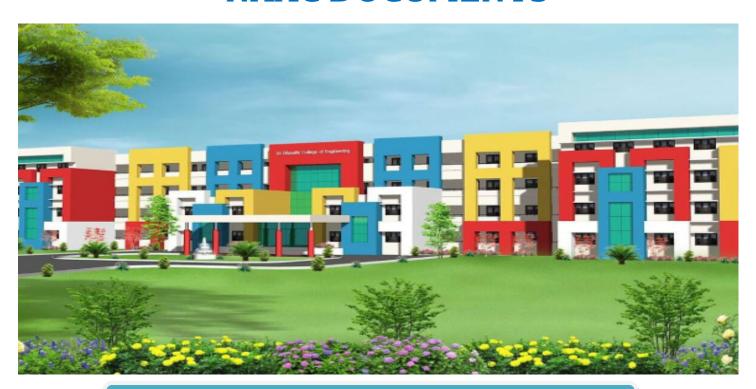
ENGINEERING COLLEGE FOR WOMEN

(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

Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) KAIKKURUCHI, PUDUKOTTAI – 622 303

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ACADEMIC YEAR 2021-2022 / 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:	ENER	GY AUDI	ΓING ()N D	OMESTIC	C APLLIC	ATION					
Mr.N.Sasikumar, Technical Head,												
Resource Person: SD Pro Solutions, No. 64, 1st floor, Sri Krishna complex,												
Opp to E.R Higher Sec School, Chinthamani, Trichy-2.												
	l	Mail id: sdpro	trichy@g	mail.co	m							
Date of conduct from	n :	09.08.2021	To:	14.08	.2021	Duration :	36 Hour	rs				
Organized Departm	ent :	ELECTRIC	CAL ANI) ELE	CTRONICS	ENGINEER	ING					
Participant Year: 2, 3,4 Semester: ODD No. of Students Registered: 27												
Venue: Tutorial Hall:42 ,SBECW												

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(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) KAIKKURUCHI, PUDUKOTTAI – 622 303 DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING **ACADEMIC YEAR 2021-2022 / ODD SEMESTER**

DEPARTMENT CIRCULAR

Date: 30/07/2021

Value Added Course offered by the Department of EEE will be conducted in association with SD PRO SOLUTIONS, Trichy for Second, Third and Final year students on "ENERGY AUDITING IN DOMESTIC APPLICATIONS" from 09.08.2021 to 14.08.2021. Certificates will be issued to the eligible participants at the end of the Course. The Resource person details are shown in table.

RESOURSE PERSON DETAILS:

Name	Mr.N.Sasikumar
Designation:	Technical Head
Company name with address	SD PRO SOLUTIONS No. 64, 1st floor, Sri Krishna complex, Opp to E.R Higher Sec School, Chinthamani, Trichy-2.
Mail id	sdprotrichy@gmail.com

Cc:

• Principal's Office

IQAC Coordinator

Class In charges - II, III & IV-year of EEE

• II, III & IV-year EEE Students

Notice Board

MOD EEE 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 ELECTRICAL AND ELECTRONICS ENGINEERING ACADEMIC YEAR 2021-2022 / ODD SEMESTER

VALUE ADDED COURSE

ENERGY AUDITING IN DOMESTIC APPLICATION

SCHEDULE

SI .NO	TOPICS	DURATION (in hours)	DATE
1.	Basics of Energy scenario and Energy needs of growing economy.	3	09.08.2021
2.	Energy conservation and its importance and Energy strategy for the future	3	09.08.2021
3.	Energy conservation Act-2001 and its features.	3	10.08.2021
4.	Types of Energy- Audit and methodology	3	10.08.2021
5.	Light Measurement, Speed Measurement	3	11.08.2021
6.	Introduction to HVAC and Conditioning System.	3	11.08.2021
7.	Impact of Refrigerants on Environment	3	12.08.2021
8.	Energy – Saving Measures in HVAC.	3	12.08.2021
9.	Energy management (audit) approach	3	13.08.2021
10.	Matching the energy use to requirement	3	13.08.2021
11.	Fuel and energy substitution and conservation and its planning.	3	14.08.2021
12.	Energy conservation in domestic applications.	3	14.08.2021
	TOTAL HOURS	36 HO	OURS

VAC COORDINATOR

Dr. S.THILAGAVATHIM.E., Ph.D.,
PRINCIPAL

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COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.

HoD/EEE

HARATHI ENGINEERING

COLLEGE FOR WOMEN KAIKKURICHI,

PUDUKKOTTA! - 622 303.



(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)
KAIKKURUCHI, PUDUKKOTTAI-622 303.
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
ACADEMIC YEAR 2021-2022 / ODD SEMESTER

STUDENT NAME LIST FOR VALUE ADDED COURSE

ENERGY AUDITING IN DOMESTIC APPLICATION

S.NO	NAME	REG.NO	YEAR & SEMESTER
1	KAYALVIZHI K	912620105001	II & III
2	RAMADEVI S	912620105002	II & III
3	SRINANTHANA S	912620105003	II & III
4	KALPANA T	912620105301	II & III
5	KAVIYA R	912620105302	II & III
6	KOPPERUNDEVI S	912620105303	II & III
7	NARMATHA DEVI K	912620105304	II & III
8	SRIBHARATHI S	912620105305	II & III
9	AASHIKA R	912619105001	III & V
10	ABINAYA S	912619105002	III & V
11	ABITHA P	912619105003	III & V
12	ARTHY N	912619105004	III & V
13	DEEPIKA R	912619105005	III & V
14	KOGULA PRIYA R	912619105006	III & V
15	NISHA S	912619105007	III & V
16	PAVITHRA M	912619105008	III & V
17	PRAGADEESHWARI A	912619105009	III & V
18	SIVARANJANI S	912619105010	III & V
19	RAGAVI R	912619105301	III & V
20	AARTHI G	912618105001	IV &VII
21	AASHA R	912618105002	IV &VII
22	AGARI S	912618105003	IV &VII
23	JEEVITHA R	912618105004	IV &VII
2 4	NISHA K	912618105005	IV &VII

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

25	RAMANA R	912618105006	IV &VII
26	SNEHA S	912618105007	IV &VII
27	VINOTHINI V	912618105301	IV &VII

VAC COORDINATOR

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SRI BHARATHI ENGINEERING
OOLLEGE FOR WOMEN
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Dr. S.THILAGAVATHI M.E., Ph.D.,
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KAIKKURICHI, PUDUKKOTTAI-622 303
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
ACADEMIC YEAR 2021-2022 / ODD SEMESTER

ATTENDANCE SHEET FOR VALUE ADDED COURSE ENERGY AUDITING IN DOMESTIC APPLICATION

S.NO	DEC NO	NAME		09.0	8.21	10.0	08.21	11.0	08.21	12.0	08.21	13.0	08.21	14.0	08.21	NO. OF	SIGN OF
S.NO	REG. NO	NAME	YEAR/ SEM	F.N	A.N	F.N	A.N	F.N	A.N	F.N	A.N	F.N	A.N	F.N	A.N	(A)	STUDENT
1.	912620105001	KAYALVIZHI K	II & III	1	1	1	1	1	/	1	1	1	/	1	/	12	k kayanzh
2	912620105002	RAMADEVI S	II & III	1	1	1	/	/	1	1	1	1	1	1	1	12	Solut.
3	912620105003	SRINANTHANA S	II & III	1	1	1	/	/	1	1	1	1	/	/	1	10	& Sri Day
4	912620105301	KALPANA T	II & III	a	a	1	/	1	1	1	1	/	/	1	a	09	R. Kalpar
5	912620105302	KAVIYA R	II & III	1	1	1	/	1	1	1	1	1	/	1	1	10	Ritarilya
6	912620105303	KOPPERUNDEVI S	II & III	1	1	1	/	a	a	1	1	/	a	1	/	09	S. keef.
7	912620105304	NARMATHA DEVI K	11 & 111	./	1	1	1	1	/	1	/	1	1	/	1	12	R. Danmeth

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

8	912620105305	SRIBHARATHI S	II & III	a	a	/	/	1	1	1	1	1	/	,	1	10	S. SriBhor
9	912619105001	AASHIKA R	III & IV	1	/	1	,	1	1	,	,	1	1	,	1	12	R. Aashike
10	912619105002	ABINAYA S	III & IV	/	/	1	1	a	a	1	1	1	1	1	,	10	S. Abinaya
11	912619105003	АВІТНА Р	III & IV	1	/	/	/	1	1	,	1	1	/	,	/	15	P. Abitha
12	912619105004	ARTHY N	III & IV	/	1	1	/	1	/	,	a	1	/	1	,	11	10- Johny
13	912619105005	DEEPIKA R	III & IV	/	1	1	/	1	1	1	1	1	1	a	a	10	(Apopu
14	912619105006	KOGULA PRIYA R	III & IV	1	1	1	/	/	1	1		1	/	1	1	10	D. Kon DO
15	912619105007	NISHA S	III & IV	1	1	1	1	1	1	1	/	1	/	1	1	12	D. Kogulapiy S. Nishae
16	912619105008	PAVITHRA M	III & IV	a	a	1	1	1	1	1	1	1	/	,	1	10	M. Recep
17	912619105009	PRAGADEESHWARI A	III & IV	1	1	1	1	1	a	1	/	1	1	/	1	11	A Pragade shiar
18	912619105010	SIVARANJANI S	III & IV	/	1	1	1	1	1	a	a	1	/	1	,	10	S. Suvagary ay
19	912619105301	RAGAVI R	III & IV	1	1	1	/	1	1	1	1	1	/	1	,	12	R. Ragneri
20	912618105001	AARTHI G	IV & VII	/	1	1	1	1	1	1	1	1	1	1	1	12	G1. Auth
21	912618105002	AASHA R	IV &VII	/	1	/	1	a	a	1	a	/	/	,	,	09	R. Aasha
22	912618105003	AGARI S	IV &VII	1	a	1	1	1	1	1	1	1	/	,	1	11	S. Agroni
23	912618105004	JEEVITHA R	IV &VII		/	a	a	1	1	1	/	1	1	1	1	10	Riedhas

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

24	912618105005	NISHA K	IV &VII	1	1	/	1	1	1	/	1	/	/	/	/	12	K. Dynej
25	912618105006	RAMANA R	IV &VII	/	1	1	1	/	1	/	1	/	/	1	/	12	R. Ramana
26	912618105007	SNEHA S	IV &VII	1	1	1	1	1	1	/	1	/	1	/	1	12	S. Snehen
27	912618105301	VINOTHINI V	IV &VII	a	a	1	1	1	1	1	1	1	1	1	1	10	V. Vig

VAC CO ORDINATOR

HoD/EEE

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SRI BHARATHI ENGINEERING

COLLEGE FOR WOMEN KAIKKURICHI,

PUDUKKOTTAI - 622 303.

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

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) KAIKKURICHI, PUDUKKOTTAI, TAMIL NADU – 622 303, INDIA

Report on Value Added Course

Title:

ENERGY AUDITING ON DOMESTIC APLLICATION

Resource Person:

Mr.N.Sasikumar, Technical Head,

SD Pro Solutions, No. 64, 1st floor, Sri Krishna complex,

Opp to E.R Higher Sec School, Chinthamani, Trichy-2.

Mail id: sdprotrichy@gmail.com

Date of conduct from:

09.08.2021

To:

14.08.2021

Duration:

36 Hours

Organized Department:

ELECTRICAL AND ELECTRONICS ENGINEERING

Participant Year:

2/3/4

Semester:

ODD

No. of Students Registered:

27

Venue:

Tutorial Hall:42, SBECW.

Outcome of Value Added Course (VAC)

At the end of the Course, Students can able to

- Explain about the energy needs of growing economy, energy security.
- Describe about the Audit Methodology, Financial Analysis, Sensitivity Analysis, Energy Monitoring and Training and Survey Instrumentation.
- Obtain the insight about HVAC, Psychrometry, Vapour Compression Refrigeration Cycle, impact of refrigerants on environment, energy saving in HVAC.
- Comprehend about the Energy management (audit) approach, maximizing system efficiencies.
- Demonstrate about optimizing the input energy requirements, Fuel and energy substitution.
- Illustrate about the energy saving measures in new buildings, energy conservation planning, and Energy conservation in household and commercial sectors.

No. of students successfully completed the VAC course is 27 students based on the following assessment process.

Assessment Process

Students, who are 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

ATHI ENGINEERIN **COLLEGE FOR WOMEN** KAIKKURICHI.

PUDUKKOTTAI - 622 303.

SRI BHARATHI ENGINEERINC COLLEGE FOR WOMEN KAIKKURICHI - 622 303.

PUDUKKOTTAI DISTRICT

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

SD PRO SOLUTIONS

No. 64, 1st floor,Sri Krishna complex, Opp to E.R Higher Sec School,Chinthamani,Trichy-2. Mail id: sdprotrichy@gmail.com



CERTIFICATE OF PARTICIPATION

This is to certify that Ms. AASHIKA R, Reg no: 912619105001, III year, EEE department has successfully completed the Value added Course on "ENERGY AUDITING IN DOMESTIC APPLICATIONS" conducted at Sri Bharathi Engineering College for Women, Pudukkottai in association with SD PRO SOLUTIONS PVT LTD, Trichy from 09.08.2021 to 14.08.2021.

MR.N.SASIKUMAR

TECHNICAL HEAD

PRINCIPAL

SBECW

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

SD PRO SOLUTIONS

No. 64, 1st floor, Sri Krishna complex, Opp to E.R Higher Sec School, Chinthamani, Trichy-2. Mail id: sdprotrichy@gmail.com



CERTIFICATE OF PARTICIPATION

This is to certify that Ms. AARTHI G, Reg no: 912618105001, IV year, EEE department has successfully completed the Value added Course on "ENERGY AUDITING IN DOMESTIC APPLICATIONS" conducted at Sri Bharathi Engineering College for Women, Pudukkottai in association with SD PRO SOLUTIONS PVT LTD, Trichy from 09.08.2021 to 14.08.2021.

MR.N.SASIKUMAR

TECHNICAL HEAD

PRINCIPAL

-SBECW

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



No. 64, 1st floor,Sri Krishna complex, Opp to E.R Higher Sec School,Chinthamani,Trichy-2. Mail id: sdprotrichy@gmail.com



CERTIFICATE OF PARTICIPATION

This is to certify that Ms. KAYALVIZHI K, Reg no: 912620105001, II year, EEE department has successfully completed the Value added Course on "ENERGY AUDITING IN DOMESTIC APPLICATIONS" conducted at Sri Bharathi Engineering College for Women, Pudukkottai in association with SD PRO SOLUTIONS PVT LTD, Trichy from 09.08.2021 to 14.08.2021.

MR.N.SASIKUMAR

TECHNICAL HEAD

Dr. S.THILAGAVATHAM.E., Ph.D.,

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt. **PRINCIPAL**

SBECW



ACADEMIC YEAR 2021-2022 / ODD SEMESTER

VALUE ADDED COURSE

ENERGY AUDITING IN DOMESTIC APPLICATION

Name of student:		Year/Sem:
AU Reg.No:		
MULTIPLE CHOICE QUESTION (20 X1 =	20 MARKS)	$M \sim$
1. Non contact speed measurements can be can	ried out by	the
(a) Tachometer (b) Stroboscope (c) Oscilloscop	e (a) odometer	HILAGAVATHI M.E.,Ph.E PRINCIPAL
2. Non contact flow measurement can be carried	1 / 1	BHARATHI ENGINEERING OLLEGE FOR WOMEN urchi - 622 303, Pudukkottai Dt.
(a) Orifice meter (b) Turbine flow meter	(c) Ultrasonic flow meter	(d) Magnetic flow meter
3. Name the one instrument used to measure CC	22 from boilers stack is	
(a) Infrared thermometer (b) Fyrite	(c) Anemometer	(d) Pitot tube
4. The percentage of energy saved at the current use, is called	rate of use, compared to the	e reference year rate of
(a) Energy Utilization (b) Energy Performance	e (c) Energy Efficiency	(d) None
5. The objective of energy management include	es	
(a) Minimizing energy costs(c) Minimizing environmental degradation	(b) minimizing waste(d) all the above.	
6. The various types of the instruments, which re	equires during audit need to	be
(a) easy to carry (b) easy to operate	(c) inexpensive (d)	all (a) to (c)

7. Find out the 'odd' a			el substitution for ind	
(a) LPG for soft coke	(b) coal with rice hus	sk (c) natural	gas for fertilizer plant	(d) LDO with LSHS.
8. The tool used for per Energy management a		nt and logical	evaluation of avenues	s for improvement in
(a) Fuel substitution	(b) Monitoring and	verification	(c) Energy pricing	(d) Bench marking
9. An energy policy do	pes not include			
(a) Target energy cons(c) Declaration of top		tment	•	luction projection d for reduction.
10. Indian per capita e	nergy consumption i	s of the	world average.	
(a) 4% (b) 1%	(c) 20%	(d) 10%	
11. The judicious and positions". This can be		gy to maximiz	ze profits and enhance	competitive
(a) Energy conservation	on (b) Energy	management	(c) Energy policy	(d) Energy Audi
12. Which instrument	is used to monitor O	2, CO in flue	gas? (EA)	
(a) Combustion analyz	zer (b) Power a	nalyzer	(c) Pyrometer	(d) Fyrite
13. Air velocity in duc	ets can be measured b	y using a	and manometer	
(a) Orifice meter	(b) Borden g	gauge	(c) Pitot tube	(d) Anemometer
14. Steps involved in	pre-audit phase are			
(a) Plan and organize (c) Informal interview	with plant personnel		(b) Walk through a (d) All the above.	udit
15. The formation of f		in a refrigera		0
(a) improves C.O.P. of (c)reduces power cons			(b) increases heat(d) Increases power	

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



- 16. Energy Star Label rating scheme for Fluorescent lamp is based on:
- (a) Lumens per Watt at 100, 2000 and 3500 hours of use (b) End of Lamp Life in terms of
- burring hours (c)Lumen depreciation at 2000 hours
- (d)Color Rendering Index
- 17. The various types of the instruments, which requires during audit need to be
- (a) easy to carry
- (b) easy to operate
- (c) inexpensive
- (d) all (a) to (c)

- 18. Lux meter is used to measure..... (EA)
- (a) Illumination level

(b) Sound intensity and illumination level

(c) Harmonics

- (d) Speed
- 19. CO2 measurement of Fyrite kit is based on (EA)
- (a) Weight basis (dry)

(b) Volume basis (dry)

(c) Weight basis (wet)

- (d) Volume basis (wet)
- 20. Preliminary energy audit is a relatively quick exercise to
- (a) Offers the most accurate estimate of energy savings and cost
- (b) Includes detailed energy cost saving calculations and project cost.
- (c) Identify the most likely (and the easiest areas for attention)
- (d) Provides a detailed energy project implementation plan for a facility, since it evaluates all major energy using systems.

Dr. S.THILAGAVATHI M.È., Ph.D.

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ACADEMIC YEAR 2021-2022 / ODD SEMESTER VALUE ADDED COURSE ENERGY AUDITING IN DOMESTIC APPLICATION

ANSWER KEY FOR MCQ

1	b	2	С	3	b	4	b	5	d
6	d	7	a	8	d	9	b	10	С
11	b	12	a	13	С	14	d	15	d
16	a	17	d	18	a	19	b	20	С

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

PRINCIPAL SRI BHARATHI ENGINEERING



ACADEMIC YEAR 2021-2022 / ODD SEMESTER

VALUE ADDED COURSE

ENERGY AUDITING IN DOMESTIC APPLICATION

Name of student: K. Kayalvizhi	Year/Sem: 11 111
AU Reg.No: 912620105001	
MULTIPLE CHOICE QUESTION (20 X1 = 20 MARKS)	_)
1. Non contact speed measurements can be carried out by	
(a) Tachometer (b) Stroboscope (c) Oscilloscope (d) Odometer	
2. Non contact flow measurement can be carried out by	
(a) Orifice meter (b) Turbine flow meter (c) Ultrasonic flow meter	(d) Magnetic flow meter
3. Name the one instrument used to measure CO2 from boilers stack is	
(a) Infrared thermometer (b) Fyrite (c) Anemometer	(d) Pitot tube
4. The percentage of energy saved at the current rate of use, compared to the use, is called	reference year rate of
(a) Energy Utilization (b) Energy Performance (c) Energy Efficiency	(d) None
5. The objective of energy management includes	
(a) Minimizing energy costs (b) minimizing waste (c) Minimizing environmental degradation (d) all the above.	
6. The various types of the instruments, which requires during audit need to	be
(a) easy to carry (b) easy to operate (c) inexpensive (d) a	all (a) to (c)
\wedge	

Dr. S.THILAGAVATHI M.E., Ph.D.,
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SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN (Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai-622 303.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

7. F	ind o	ut the	'odd'	among the	following	choices	for t	fuel	substitution	for	industrial	sector	of	India
------	-------	--------	-------	-----------	-----------	---------	-------	------	--------------	-----	------------	--------	----	-------

7. Find out the odd among the following choices for fue	i substitution for industrial sector of india.
(a) LPG for soft coke (b) coal with rice husk (c) natural g	as for fertilizer plant (d) LDO with LSHS.
8. The tool used for performance assessment and logical energy management and audit is	evaluation of avenues for improvement in
(a) Fuel substitution (b) Monitoring and verification	(c) Energy pricing
9. An energy policy does not include	
(a) Target energy consumption reduction(c) Declaration of top management commitment	(d) Time period for reduction.
10. Indian per capita energy consumption is of the w	
(a) 4% (c) 20%	(d) 10%
11. The judicious and effective use of energy to maximize positions". This can be the definition of:	e profits and enhance competitive
(a) Energy conservation (b) Energy management	(c) Energy policy (d) Energy Audit
12. Which instrument is used to monitor O2, CO in flue g	as? (EA)
(a) Combustion analyzer (b) Power analyzer	(c) Pyrometer (d) Fyrite
13. Air velocity in ducts can be measured by using an	nd manometer
(a) Orifice meter (b) Borden gauge	© Pitot tube (d) Anemometer
14. Steps involved in pre-audit phase are	
(a) Plan and organize(c) Informal interview with plant personnel	(b) Walk through audit (d) All the above.
15. The formation of frost on cooling coils in a refrigerate(a) improves C.O.P. of the system(c)reduces power consumption	(b) increases heat transfer (d) Increases power consumption

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16. Energy Star Label ra	ating scheme for Fluor	escent lamp	is based or	n: ×		
(a) Lumens per Watt at burring hours (c)Lumen				•		
17. The various types of	f the instruments, which	h requires o	during audit	need to	o be	
(a) easy to carry	(b) easy to operate	(c) inex	pensive	6	Dall (a) to (c)	
18. Lux meter is used to	measure (EA)					
a Illumination level		(b) Sou	and intensity	y and il	lumination level	
(c) Harmonics		(d) Speed				
19. CO2 measurement of	of Fyrite kit is based or	n (EA)				
(a) Weight basis (dry)(c) Weight basis (wet)			lume basis (ume basis (
20. Preliminary energy	audit is a relatively qui	ck exercise	to			
(-) OCC 1						

- (a) Offers the most accurate estimate of energy savings and cost
- (b) Includes detailed energy cost saving calculations and project cost.
- (E) Identify the most likely (and the easiest areas for attention)
- (d) Provides a detailed energy project implementation plan for a facility, since it evaluates all major energy using systems.

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ACADEMIC YEAR 2021-2022 / ODD SEMESTER

VALUE ADDED COURSE

ENERGY AUDITING IN DOMESTIC APPLICATION

Name of student: 5 · ABINAYA	Year/Sem: III /Y
AU Reg.No: 912619105002	
MULTIPLE CHOICE QUESTION (20 X1 = 20 MARKS)	
Non contact speed measurements can be carried out by	
(a) Tachometer (b) Stroboscope (c) Oscilloscope (d) Odometer	
2. Non contact flow measurement can be carried out by	
(a) Orifice meter (b) Turbine flow meter (c) Ultrasonic flow meter	(d) Magnetic flow meter
3. Name the one instrument used to measure CO2 from boilers stack is	
(a) Infrared thermometer (b) Fyrite (c) Anemometer	(d) Pitot tube
4. The percentage of energy saved at the current rate of use, compared to the use, is called	reference year rate of
(a) Energy Utilization	(d) None
5. The objective of energy management includes	
(a) Minimizing energy costs (b) minimizing waste (c) Minimizing environmental degradation (d) all the above.	
6. The various types of the instruments, which requires during audit need to	be
(a) easy to carry (b) easy to operate (c) inexpensive (d) a	all (a) to (c)

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		ne following choices for fu		
(a) LPG for soft col	ke (b) coal	with rice husk (c) natural	gas for fertilizer plant	(d) LDO with LSHS.
8. The tool used for Energy management		nce assessment and logical t is	evaluation of avenues	for improvement in
(a) Fuel substitution	(b) Mo	onitoring and verification	(c) Energy pricing	d Bench marking
9. An energy policy	does not	include		
(a) Target energy co (c) Declaration of to			(d) Time period	uction projection for reduction.
10. Indian per capita	a energy c	onsumption is of the	world average.	
(a) 4%	(b) 1%	(c) 20%	(3) 10%	X
11. The judicious an positions". This can		e use of energy to maximiz	ze profits and enhance	competitive
(a) Energy conserva	tion	(b) Energy management	(c) Energy policy	(d) Energy Audit
12. Which instrumen	nt is used	to monitor O2, CO in flue	gas? (EA)	
(a) Combustion anal	lyzer	(b) Power analyzer	(c) Pyrometer	(d) Fyrite
13. Air velocity in d	lucts can b	e measured by using a	nd manometer	
(a) Orifice meter		(b) Borden gauge	© Pitot tube	(d) Anemometer
14. Steps involved i	in pre-aud	it phase are		
(a) Plan and organiz (c) Informal intervie		ant personnel	(b)Walk through au d All the above.	dit
15. The formation of (a) improves C.O.P.		cooling coils in a refrigerat	or (b) increases heat t	ransfer

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(c)reduces power consumption

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d Increases power consumption



16. Energy Star Label rating scheme for Fluorescent lamp is based on:

Lumens per Watt at 100, 2000 and 3500 hours of use	(b) End of Lamp Life in terms of
burring hours (c)Lumen depreciation at 2000 hours	(d)Color Rendering Index

17. The various types of the instruments, which requires during audit need to be

(a) easy to carry

(b) easy to operate

(c) inexpensive

(d) all (a) to (c)

18. Lux meter is used to measure..... (EA)

(a) Illumination level

(b) Sound intensity and illumination level

(c) Harmonics

(d) Speed

19. CO2 measurement of Fyrite kit is based on (EA)

(a) Weight basis (dry)

(b) Volume basis (dry)

(c) Weight basis (wet)

(d) Volume basis (wet)

20. Preliminary energy audit is a relatively quick exercise to

(a) Offers the most accurate estimate of energy savings and cost

(b) Includes detailed energy cost saving calculations and project cost.

(c) Identify the most likely (and the easiest areas for attention)

(d) Provides a detailed energy project implementation plan for a facility, since it evaluates all major energy using systems.

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(a) easy to carry

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ACADEMIC YEAR 2021-2022 / ODD SEMESTER

VALUE ADDED COURSE

ENERGY AUDITING IN DOMESTIC APPLICATION

Name of student: R. JES. VITHA	Year/Sem: [V / V!]
AU Reg.No: 912618105004	
MULTIPLE CHOICE QUESTION (20 X1 =20 MAI	(15)
1. Non contact speed measurements can be carried out	by
(a) Tachometer (b) Stroboscope (c) Oscilloscope (d) Oc	ometer
2. Non contact flow measurement can be carried out by	\times
(a) Orifice meter (b) Turbine flow meter (c) Uli	rasonic flow meter (d) Magnetic flow meter
3. Name the one instrument used to measure CO2 from	boilers stack is
(a) Infrared thermometer (b) Fyrite (c) An	emometer (d) Pitot tube
4. The percentage of energy saved at the current rate of use, is called	use, compared to the reference year rate of
(a) Energy Utilization (6) Energy Performance (c) En	ergy Efficiency (d) None
5. The objective of energy management includes	
(a) Minimizing energy costs (c) Minimizing environmental degradation (d)	minimizing waste) all the above.
6. The various types of the instruments, which requires	during audit need to be

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(c) inexpensive

(b) easy to operate

(a) all (a) to (c)

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7. Find out the 'odd' among t	NT OF ELECTRICAL ANd the following choices for full the		
(a) LPG for soft coke (b) coa	l with rice husk (c) natural	gas for fertilizer plant	(d) LDO with LSHS.
8. The tool used for performa Energy management and aud		evaluation of avenues	s for improvement in
(a) Fuel substitution (b) Mo	onitoring and verification	(c) Energy pricing	Bench marking
9. An energy policy does not	include		
(a) Target energy consumption(c) Declaration of top manage		(b) Future prod (d) Time period	uction projection d for reduction.
10. Indian per capita energy of	consumption is of the	world average.	
(a) 4% (b) 1%	(c) 20%	(d) 10%	X
11. The judicious and effective positions". This can be the de		ze profits and enhance	competitive
(a) Energy conservation	(b) Energy management	(c) Energy policy	(d) Energy Audit
12. Which instrument is used	to monitor O2, CO in flue	gas? (EA)	
(a) Combustion analyzer			(d) Fyrite
13. Air velocity in ducts can l	be measured by using a	and manometer	
(a) Orifice meter	(b) Borden gauge	©Pitot tube	(d) Anemometer
14. Steps involved in pre-aud	dit phase are		
(a) Plan and organize(c) Informal interview with p	lant personnel	(b) Walk through as (d) All the above.	udit
15. The formation of frost on (a) improves C.O.P. of the sy (c)reduces power consumption	stem	tor (b) increases heat (d) Increases powe	

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major energy using systems.

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

16. Energy Star Label rating scheme for Fluoresc	ent lamp	is based on:	
(a) Lumens per Watt at 100, 2000 and 3500 hour burring hours (c)Lumen depreciation at 2000 hours		(b) End of Lan (d)Color Rende	np Life in terms of ering Index
17. The various types of the instruments, which r	equires d	uring audit need	d to be
(a) easy to carry (b) easy to operate	(c) inexp	pensive	(d) all (a) to (c)
18. Lux meter is used to measure (EA)			
a)Illumination level	(b) Sou	nd intensity and	d illumination level
(c) Harmonics	(d) Spe	ed	
19. CO2 measurement of Fyrite kit is based on (F	EA)		
(a) Weight basis (dry)(c) Weight basis (wet)	-	ume basis (dry) ume basis (wet)	
20. Preliminary energy audit is a relatively quick	exercise	to	
(a) Offers the most accurate estimate of energy sa	avings an	d cost	
(b) Includes detailed energy cost saving calculat	ions and	project cost.	•
(c) Identify the most likely (and the easiest areas	for atten	tion)	
(d) Provides a detailed energy project implement	tation pla	n for a facility	since it evaluates al

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ACADEMIC YEAR 2021-2022 / ODD SEMESTER

MARK SHEET FOR VALUE ADDED COURSE ENERGY AUDITING IN DOMESTIC APPLICATION

S.N O	REG. NO	NAME	YEAR/ SEM	AR/ ATTENDACE 50% 50% (A)	(A)		50%(B)	
				No of Session Attended	MARKS	No of Correct Answer	MARKS	(A+B)
1	912620105001	KAYALVIZHI K	II & III	12	100	18	90	95
2	912620105002	RAMADEVI S	II & III	12	100	19	95	98
3	912620105003	SRINANTHANA S	II & III	12	100	17	85	93
4	912620105301	KALPANA T	II & III	9	75	16	80	78
5	912620105302	KAVIYA R	II & III	12	100	15	75	88
6	912620105303	KOPPERUNDEVI S	II & III	9	75	18	90	83
7	912620105304	NARMATHA DEVI K	II & III	12	100	19	95	98
8	912620105305	SRIBHARATHI S	II & III	10	83	17	85	84
9	912619105001	AASHIKA R	III & V	12	100	18	90	95
10	912619105002	ABINAYA S	III & V	10	83	17	85	87
11	912619105003	ABITHA P	III & V	12	100	19	95	98
12	912619105004	ARTHY N	III & V	11	92	20	100	96
13	912619105005	DEEPIKA R	III & V	10	83	15	75	79
14	912619105006	KOGULA PRIYA R	III & V	12	100	19	95	98
15	912619105007	NISHA S	III & V	12	100	18	90	95
16	912619105008	PAVITHRA M	III & V	10	83	17	85	87
17	912619105009	PRAGADEESHWARI A	III & V	11	92	20	100	96
18	912619105010	SIVARANJANI S	III & V	10	83	15	75	79
19	912619105301	RAGAVI R	III & V	12	100	19	95	98
20	912618105001	AARTHI G	IV &VII	12	100	18	90	95

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21	912618105002	AASHA R	IV &VII	9	75	17	85	80
22	912618105003	AGARI S	IV &VII	11	92	20	100	96
23	912618105004	JEEVITHA R	IV &VII	10	83	15	75	79
24	912618105005	NISHA K	IV & VII	12	100	19	95	98
25	912618105006	RAMANA R	IV &VII	12	100	18	90	95
26	912618105007	SNEHA S	IV &VII	12	100	19	95	98
27	912618105301	VINOTHINI V	IV &VII	10	83	17	85	87

VAC COORDINATOR

HoD/EEE

HOD EEL SRI BHARATHI ENGINE FING

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