		Hall Ticket Number :								
			R-20							
	C	Dec : 20A27MT IV B.Tech. I Semester Supplementary Examinations May / Ju Smart Grid (Floatrical and Floatranica Engine agrical)	Jne 2024							
	Μ	(Electrical and Electronics Engineering) ax. Marks: 70 ********	Time: 3 Hours							
	No	ote: 1. Question Paper consists of two parts (Part-A and Part-B) 2. In Part-A, each question carries Two marks . 3. Answer ALL the questions in Part-A and Part-B PART-A								
		(Compulsory question)								
		1. Answer all the following short answer questions (5 X 2 = 10M)	CO BL							
		a) What is the need of smart grid	CO1 2							
		b) What is GIS?	CO2 1							
		c) List out the types of fuel cells	CO3 1							
		d) What is meant by double layer capacitor	CO4 2							
		e) What is meant by cloud computing	CO5 2							
		PART-B								
	4	Answer <i>five</i> questions by choosing one question from each unit (5 x 12		-						
			Marks	CO	BL					
0		UNIT-I	14							
2.		Briefly explain the concept of plug in hybrid vehicle technology and challenges		CO1	4					
		OR	12111	COT	7					
3.	2)	Discuss the concept of Robust and self-healing.	6M	CO1	4					
٥.	a)	·		CO1						
	b)	Write short note on smart sensors UNIT-II	OIVI	COT	2					
4.	a)	Explain the features and applications of PMU in power systems	6M	CO2	4					
•	b)	Write a short note on wide area measuring system.	6M	CO2	2					
	D)	OR	OIVI	002	_					
5.		Explain about the intelligent electronic devices used for monitoring a		000	4					
		protection. UNIT-III	I∠IVI	CO2	4					
6.	a)	Discuss about the various issues of inter connection of micro grid	6M	CO3	4					
	b)	Write short note on organic solar cells.	6M	CO3	2					
		OR								
7.		Explain in detail about the formation of micro grid and also mention applications		CO3	4					
8.	a)	Write short note on standards in Electrical energy storage system.	6M	CO4	2					
0.	b)	Give the comparison between DLG and SMES	6M	CO4	4					
	D)	OR	Olvi	004	7					
9.		Explain in detail about the various storage technologies used in smart grid	12M	CO4	4					
10.	a)	What are the protocols and benefits of Advance metering infrastructure?	6M	CO5	2					
	b)	Discuss about home area network	6M	CO5	4					
	OR									
11.	a)	Explain the concept of cyber security for smart grid	6M	CO5	2					
11.	а) b)	Write short note on wireless mess network	6M	CO5	4					
	IJ)	*** End ***	OIVI	000	4					

a) Demonstrate the temperature rise in motor with necessary equations? 6M CO1 L2 b) Explain the starting and running characteristics of electric drives. 6M CO1 L1 OR Summarize the different Types of Industrial Loads? Explain in detail. 12M CO1 L6 UNIT-II Explain in detail about (i) Resistance welding (ii) Arc welding OR a) Explain dielectric heating with a neat sketch 6M CO2 L1 b) Distinguish between electric and nonelectric welding 6M CO2 L4 UNIT-III a) State and prove the laws of illumination 6M CO3 L2 b) With a neat diagram, explain the construction and working of sodium vapour lamp OR Discuss different types of lightning schemes. 12M CO3 L6 UNIT-IV a) Explain the various types of traction systems in detail 6M CO4 L1 b) Analyze the dynamic braking with suitable sketch. 6M CO4 L4 OR Explain coefficient of adhesion and also discuss the factors affecting the coefficient of adhesion UNIT-V a) Briefly explain various types of electric vehicles 6M CO5 L3 b) Explain different HEV configurations. 6M CO5 L6 OR a) Draw the basic block diagram of an Electric Vehicle. 6M CO5 L6	На	II Ticket Number :			
IV B.Tech. I Semester Supplementary Examinations May / June 2024 Utilization of Electrical Energy (Electrical and Electronics Engineering) Max. Marks: 70 Time: 3 Hours Note: 1. Question Paper consists of two parts (Part-A and Part-B) 2. In Part-A, each question carries Two marks. 3. Answer ALL the questions in Part-A and Part-B PART-A (Compulsory question) 1. Answer all the following short answer questions (5 X 2 = 10M) CO BL a) List the advantages of electrical drive used on traction. CO1 L1 b) List the properties of a good heating element. CO2 L1 c) Draw the circuit diagram of fluorescent lamp d) What are the problems associated with AC traction system? CO4 L1 e) List out the types of electric vehicle chargers? CO5 L1 PART-B Answer five questions by choosing one question from each unit (5 x 12 = 60 Marks) PART-B Answer five questions by choosing one question from each unit (5 x 12 = 60 Marks) PART-B Answer five questions by choosing one question from each unit (5 x 12 = 60 Marks) PART-B Answer five questions by choosing one question from each unit (5 x 12 = 60 Marks) PART-B Answer five questions by choosing one question from each unit (5 x 12 = 60 Marks) PART-B Answer five questions by choosing one question from each unit (5 x 12 = 60 Marks) PART-B Answer five questions by choosing one question from each unit (5 x 12 = 60 Marks) PART-B Answer five questions by choosing one question from each unit (5 x 12 = 60 Marks) PART-B Answer five questions by choosing one question from each unit (5 x 12 = 60 Marks) BEXPLAIN the temperature rise in motor with necessary equations? OR Summarize the different Types of Industal Loads? Explain in detail. DINIT-III Explain in detail about (i) Resistance welding (ii) Arc welding Distinguish between electric and nonelectric welding OR Distinguish between electric and nonelectric welding OR Discuss different types of lightning schemes. DIVIT-IV AND CO3 L6 Explain the various types of traction systems in detail DNIT-IV AND CO4 L1 OR Explain the various t	Co	de: 20A27HT	R-20		
Clectrical and Electronics Engineering			ne 2024		
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b) List Advantages and Disadvantages of HEV. 6M CO5 L4 *** End ***	IJ)	•	OIVI	CO3	∟4

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Hall Ticket Number :												R-20
Code: 20A27DT									K-20			

IV B.Tech. I Semester Supplementary Examinations May / June 2024

Energy Auditing and Demand Side Management

			(Electrical and Electronics Engineering)			
٨	Лах	Time: 3 Ho	me: 3 Hours			
N	ote	· 1 Question Pa	******** aper consists of two parts (Part-A and Part-B)			
11	ote		ach question carries Two marks.			
		•	the questions in Part-A and Part-B			
		3. Allower ALL	PART-A			
			(Compulsory question)			
	1.	Answer <i>all</i> th	ne following short answer questions $(5 \times 2 = 10M)$	СО В	L	
		a) Define cost i	- · · · · · · · · · · · · · · · · · · ·		1	
		b) Define energ			1	
		,	ope of Demand Side Management.		1	
		d) Define harm			1	
		,	e value of money?		1	
		o, what is time	PART-B	J	•	
		Answer <i>five</i> que	estions by choosing one question from each unit (5 x 12 = 6	60 Marks)		
		• •	•	Marks	s CO	BL
			UNIT-I			
2.	a)	What is the im	nportance of energy conservation?	5N	1 1	2
	b)	Explain differe	ent energy conservation schemes.	7N	1 1	2
			OR			
3.	a)	Discuss about	t pie charts.	6N	1 1	2
	b)	Discuss about	t load profiles.	6N	1 1	2
			UNIT-II			
4.	a)	List out the res	sponsibilities of energy auditors.	6N	1 2	1
	b)	Explain the pro	ocedure for presentations of energy audit reports.	6N	1 3	2
			OR			
5.		Discuss about	t the following energy instruments:			
		(i) dataloggers	s (ii) thermocouples	12N	1 3	2
			UNIT-III			
6.		Explain	i decomining (ii) time of decomposed	401	4 0	_
		(i) time of	day pricing (ii) time of day model.	12N	1 2	2
7		Evalaia the ave	OR	. 401	4 0	_
7.		Explain the evo	olution of Demand Side Management and the strategy or the sam	e. 12N	1 2	2
8.		Evoluin the fac	Ctors affecting the loss distribution of motors.	401	1 1	_
0.		Explain the lat	OR	12M	1 4	2
0		Discuss how a		xr2 40N		_
9.		DISCUSS HOW C	capacitors can be employed for improvement of power facto	or? 12M	1 4	2
10.		Explain averag	ge rate of return method.	12M	1 5	2
10.			OR	ı∠IV	. 3	2
11.		Evolain prese	nt value method.	12M	1 5	2
11.			*** End ***	I∠IV	1 3	_
			LIIU			