#### DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE Regular and Supplementary Summer Examination - 2024 Course: B. Tech. Branch: Common to All branches Semester: II Subject Code & Name: BTES205E - Energy and Environment Engineering Max Marks: 60 Date: 24/06/2024 Duration: 3 Hr. Instructions to the Students: 1. All the questions are compulsory. 2. The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in ( ) in front of the question. 3. Use of non-programmable scientific calculators is allowed. 4. Assume suitable data wherever necessary and mention it clearly. (Level/CO) Marks Q.1 Solve Any Two of the following. 12 M Short Notes:- i) Conventional Energy Sources ii) Steam Power **CO1** 6 Generation B) Explain in detail Gas Turbine Power Plant with neat Diagram. 4 CO<sub>2</sub> 6 C) Difference between :- Thermo electric and Thermionic generators. **CO3** 6 Q.2 Solve Any Two of the following. 12 12 A) Short Notes:- i) Biogas ii) Biomass **CO3** 6 Explain the Fuel Cell with neat diagram. **B**) **CO2** 6 Explain in detail Magneto Hydro Dynamics (MHD) with neat diagram. # JC) COL 6 Q.3 Solve Any Two of the following. 12 A) Short Notes:- i) Maximum energy efficiency ii) Maximum cost **CO1** 6 effectiveness. B) Write the Methods and techniques of energy conservation in ventilation **CO2** 6 and air conditioners, compressors, pumps, fans and blowers. C) Write the Energy conservation in electric furnaces, ovens and boilers. **CO3** 6 lighting techniques. Q.4 Solve Any Two of the following. 12 \*) Write in detail about Air pollution Sources and Effects. CO3 6 Write in detail the control measures in Air pollution. **CO4** 6 Short Notes:- i) Particulate Emission ii) Air quality standards CO5 6 **C**)

Q. 5	Solve Any Two of the following.		12
_A)	Write the Water Pollution Effects and Control Measures.	CO3	6
Æ)	Write the Noise pollution effects and control measures.	CO4	6
C)	Short Notes :- i) Thermal Pollution ii) Soil Pollution	CO5	6

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### DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

#### **Regular End Semester Examination – Summer 2022**

	Regula Course: B. Tech.	r End Semester Examination Branch : First Year	– Summer 2022 Semester :	1388777.	2255
		BTES205E Energy and Env	8.0.80	5496885	1222
	Max Marks: 60	Date:29/08/2022	02382	n: 3.45 Hr.	
	Instructions to the Stude 1. All the questions of 2. Each question car 3. Illustrate your ans 4. The level of question which the question 5. Use of non-program	nts: re compulsory.	am etc., wherever ne E or the Course Out front of the question is allowed.	cessary come (CO) on	Marks
Q.1	Solve Any Two of the fo	llowing.		5547333	
A)		rgy transformations taking plan turbine and Hydro Power plan		BTES205-1/2	6
B)	Explain the function of for i) Condenser ii) Nuclear	llowing components used in po Fuel. iii) Penstock.	ower plant:	BTES 205-3	6
C)		eaction? Explain the importance eactor with respect to chain rea	No Com By and a the	BTES 205-1/3	6
Q.2	Solve Any Two of the fo	llowing.			
A)	What is the source of tida energy in India?	l energy? What are the potentia	al sites of tidal	BTES 205-2/3	6
B)	~ ~ ~ ~ ~ ~ ~ ~ ~	the percentage composition of alth benefits of Bio-gas utilizat	× -	BTES 205-2	6
C)	How the Wind mills are of explain the function of its	lassified? Sketch the diagram of main components.	of a HAWT, and	BTES 205-2	6
No. Co					
Q.3	A S S S L L A S S S S				
A)	ふちちゃんたんしょう	by maximum energy efficiency iple? Discuss with a suitable e		BTES 205-1	6
<b>B</b> )	How do you conserve the suitable measures.	energy in pharmaceutical indu	stry? Write the	BTES 205-1	6
Q.4	Solve Any Two of the fo	llowing.			
A)		sources of outdoor pollution? V th of animals and plants and m		BTES 205-1	6
B)	Differentiate between			BTES 205-4	6

- i) Dust and smoke.
- ii) Pollutants and Toxicant.
- iii) Smoke and Smog.
- C) Explain the types of water pollutants in brief. How do vehicles responsible BTES 205-4 for water pollution?

# Q. 5 Solve Any Four of the following.

A)	What are the effects of noise pollution on children's health?	BTES 205-4	
B)	What is marble cancer? How is Taj Mahal turning yellow?	BTES 205-4	3
C)	Write in brief about the sources of thermal pollution and its effects.	BTES 205-4	3
D)	How oil spills and sediments degrade the water quality? Explain.	223333900	3
E)	Write briefly about the major sources of noise pollution.	BTES 205-4	3
F)	What is radioactive pollution? What are its effects?	BTES 205-4	3
	Portation. What are its effects?	BTES 205-4	3

End

### DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

#### Regular End Semester Examination - Summer 2022

		r End Semester Examination – Summer		
	Course: B. Tech.		mester : II	
	Subject Code & Name:	BTES205E Energy and Environment I	Engineering	45.20
	Max Marks: 60	Date:29/08/2022	Duration: 3.45 Hr.	
	<ol> <li>The level of question which the question</li> <li>Use of non-progra</li> </ol>	re compulsory.	urse Outcome (CO) on question.	Marks
Q. 1	Solve Any Two of the fol	lowing.		
A)		gy transformations taking place in the follourbine and Hydro Power plant	owing: BTES205-1/2	6
B)	Explain the function of fol	lowing components used in power plant:	BTES 205-3	6
	i) Condenser ii) Nuclear I	Fuel. iii) Penstock.		
C)		ction? Explain the importance of moderate actor with respect to chain reaction?	or and BTES 205-1/3	6
Q.2	Solve Any Two of the foll	owing.	E.	
A)	What is the source of tidal energy in India?	energy? What are the potential sites of tida	BTES 205-2/3	6
B)	82322322	te percentage composition of Bio-gas. What the benefits of Bio-gas utilization?	at are BTES 205-2	6
C)	How the Wind mills are cla explain the function of its n	ssified? Sketch the diagram of a HAWT, a nain components.	nd BTES 205-2	6
Q.3	Solve the following.			
A)	What do you understand by	maximum energy efficiency in context wit le? Discuss with a suitable example.	h BTES 205-1	6
B)	How do you conserve the er suitable measures.	ergy in pharmaceutical industry? Write the	BTES 205-1	6
Q.4	Solve Any Two of the follo	wing.		
A)		arces of outdoor pollution? What effects do of animals and plants and materials.	es BTES 205-1	6
B)	Differentiate between		BTES 205-4	6

i) Dust and smoke.ii) Pollutants and Toxicant.iii) Smoke and Smog.

C) Explain the types of water pollutants in brief. How do vehicles responsible BTES 205-4 for water pollution?

### Q. 5 Solve Any Four of the following.

A)	What are the effects of noise pollution on children's health?	BTES 205-4	3
B)	What is marble cancer? How is Taj Mahal turning yellow?	BTES 205-4	3
C)	Write in brief about the sources of thermal pollution and its effects.	BTES 205-4	3
D)	How oil spills and sediments degrade the water quality? Explain.	BTES 205-4	3
E)	Write briefly about the major sources of noise pollution.	BTES 205-4	3
F)	What is radioactive pollution? What are its effects?	BTES 205-4	3
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		er End Semester Examinatio			3423
	Course: B. Tech.	Branch : First Year	Semester	:: II	5505
	Subject Code & Name:	BTES205E Energy and En	vironment Engine	ering	
	Max Marks: 60	Date:29/08/2022		tion: 3.45 Hr.	18 8 7
Q.1	which the question 5. Use of non-progra 6. Assume suitable d	are compulsory. ries 12 marks. swers with neat sketches, diago ion/expected answer as per OL is based is mentioned in () in immable scientific calculators ata wherever necessary and m	BE or the Course On front of the question of the guestion of t	1001	Marks
A)	Write the sequence of ener Nuclear power plant, Gas	rgy transformations taking pla turbine and Hydro Power plan	ce in the following:	BTES205-1/2	6
B)	Explain the function of for i) Condenser ii) Nuclear	llowing components used in p	ower plant:	BTES 205-3	6
C)	What is a nuclear chain re	eaction? Explain the importanc reactor with respect to chain rea	e of moderator and action?	BTES 205-1/3	6
QJ	Solve Any Two of the fo	llowing.			
A	What is the source of tida energy in India?	d energy? What are the potentia	2 C. 6	BTES 205-2/3	6
B C	How the Wind mills are c	the percentage composition of alth benefits of Bio-gas utilization classified? Sketch the diagram of		BTES 205-2	6
	explain the function of its	main components.	a a may i, and	BTES 205-2	6
Q.3 A)	What do you understand b	by maximum energy efficiency	in context with	PTER and i	
B)	energy conservation princ	iple? Discuss with a suitable ex energy in pharmaceutical indus	ample	BTES 205-1	6
	suitable measures.	and by in pharmaceutical indus	stry? Write the	BTES 205-1	6
	Solve Any Two of the foll				
1	air pollution have on Healt	ources of outdoor pollution? W h of animals and plants and ma	hat effects does does	BTES 205-1	6
B)	Differentiate between			BTES 205-4	6
		DAPT ANA APPENDING			

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