


Name:			
Enrolment No:			
UPES End Semester Examination, December 2023			
Course: Alternate Energy Sources Program: B. Tech Chemical Course Code: CHCE3022P		Semester: VII Time : 03 hrs. Marks: 100	
Instructions: Attempt All			
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q 1	List the advantages and disadvantages of geothermal energy?	4	CO1
Q2	Write the principle of solar photovoltaic energy conversion.	4	CO2
Q3	Classify different types of solar thermal collectors.	4	CO3
Q 4	What is meant by solar green house.	4	CO2
Q5	Define concentration ratio of a solar collector.	4	CO3
SECTION B (4Qx10M= 40 Marks)			
Q 6	With the help of schematic diagram explain solar passive space cooling system through ventilation.	10	CO4
Q7	Explain the mechanism of photoconduction in a PV cell.	10	CO4
Q 8	Explain with the help of suitable diagram vapor dominated system in geothermal energy.	10	CO3
Q9	Where is the largest tidal plant located. Give its details? Or Describe the flat plate collector with suitable diagram.	10	CO5
SECTION-C (2Qx20M=40 Marks)			
Q 10	How can solar thermal energy be converted into electrical energy? Give a diagram showing the elements of such a plant.	20	CO5
Q 11	Explain the working of solar distillation process with a neat sketch.	20	CO4