

Test: CLA-T2

Date: 06-11-2023

Course Code & Title: 18EE0301T SUSTAINABLE ENERGY

Duration: 2 Periods

Year & SEM: IV Year / VII SEM

Max. Marks: 50

Course Articulation Matrix:

S.No.	Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1	CO1	3	2	2				1					
2	CO2	3	2	2				1					
3	CO3	3	2					1					
4	CO4	3	2					1					
5	CO5	3	2	2				1					

Part - A

(5 x 4 = 20 Marks)

Instructions: Answer any five questions

Q. No	Question	Marks	BL	CO	PO
1	State Lambert law of absorption.	4	2	4	1
2	What are the major problems you think in tidal energy generation?	4	3	4	2
3	Show the wave characteristics with the help of a diagram.	4	2	4	2
4	Compare Ionic and Electronic conductivity of fuel cell.	4	3	5	1
5	Enumerate the advantages of fuel cell.	4	2	5	1
6	What is fuel cell stack? Comment on the need for fuel cell stack.	4	3	5	2

Part – B

(15 x 2 = 30 Marks)

Instructions: Answer any one Question

7	(a) Discuss the role of various components and working of open cycle OTEC System with neat diagram. (OR) (b) Discuss the role of various components and working of single basin type tidal power plant with neat diagram.	15	2	4	1
8	(a) Compare the various types of fuel cells and explain any one type in detail with neat diagram. (OR) (b) Draw the cross section of typical PEM fuel cell and discuss the various storage methods of fuel cell.	15	3	5	2