Roll No. _____

END SEMESTER EXAMINATION
SEMESTER- V

COURSE CODE : EE-604 | **DURATION : 3 (THREE)HRS**
COURSE TITLE : NON CONVENTIONAL SOURCES OF ENERGY | **MAXIMUM MARKS : 75**
PASS MARKS : 35 %
SESSION : JULY-DEC 2021

NOTE:
1. All the questions are compulsory
2. Attempt any 5 (five) questions.
3. Mark for each question is shown against it.
4. Assume suitable logical data wherever necessary.

1.	**(a)**	What are the factors to be considered while selecting sites for wind power plant.	**(3)**
	(b)	Define solar cell. Explain the construction and operation of solar cell.	**(7)**
	(c)	Draw and explain Flat plate collector.	**(5)**
2.	**(a)**	Draw and explain the general scheme of a tidal power station.	**(10)**
	(b)	Define tidal power.	**(2)**
	(c)	How wave is used for generation of electricity.	**(3)**
3.	**(a)**	What is hydrogen energy? And how does it work.	**(8)**
	(b)	What is the difference between biomass and biogas.	**(3)**
	(c)	What is a radiation measuring instruments.	**(4)**
4.	**(a)**	With neat diagram explain the wind turbine configuration.	**(10)**
	(b)	Write short notes on the types of wind power plant.	**(5)**
5.	**(a)**	What is OTEC.	**(2)**
	(b)	With neat diagram explain the operation of closed cycle OTEC plant.	**(8)**
	(c)	Explain pyrolysis if wood.	**(5)**
6.	**(a)**	With neat diagram explain the working of a solar electric power plant.	**(8)**
	(b)	Define (i) global radiation (ii) direct radiation (iii) diffused radiation	**(6)**
	(c)	Define non conventional sources of energy.	**(1)**
7.	**(a)**	Write short notes on the following : (i) Gasification of wood. (ii) Briquetting. (iii) Energy plantation and power program	**(12)**
	(b)	What is the use of condenser and boiler in solar electric power plant.	**(3)**
8.	**(a)**	What do you mean by solar array.	**(2)**
	(b)	Draw and explain large scale Solar power plant.	**(9)**
	(c)	Which fuel is not considered as biomass energy and why.	**(4)**

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