Question Paper Code: 59910A

B.E./B.Tech. DEGREE EXAMINATION, MAY 2021

Elective

Chemical Engineering

15UCH910- ENERGY ENGINEERING

(Regulation 2015)

PART – A (10 X 2 =20 Marks)

ANSWER ANY TEN QUESTIONS

1.	Define renewable and energy resources.	U	CO1
2.	What are the four macro components in coal?	R	CO1
3.	Define Carbonization.	R	CO1
4.	What are the types of biogeochemical cycles?	R	CO2
5.	What are the main constituents of Producer gas?	R	CO2
6.	Define combustion.	R	CO2
7.	How to forecast energy demands?	U	CO3
8.	What is meant by energy plantation?	U	CO3
9.	What is a synthetic fuel?	U	CO3
10.	Write a note on tidal energy.	R	CO4
11.	Write few important applications of Solar Energy.	U	CO4
12.	What are the classifications of solar air collectors?	U	CO4
13.	Write about classification of furnaces.	R	CO5
14.	What are the measures taken for energy conservation in industries?	U	CO5
15.	What do you mean by sweetening of Petroleum products?	U	CO5

ANSWER ANY THREE QUESTIONS

PART - B (3X 10 =30 Marks)

1	Describe how thermal cracking operation differs from catalytic Cracking.	U	CO1
2	Discuss different methods of bio-gas production. Discuss their salient features.	U	CO2
3	What is the basic principle of wind energy conversion? Draw a neat sketch of wind mill and discuss its design aspects for power generation	U	CO3
4	What are the classification of coal gasifiers? With a schematic diagram explain the working of Winkler Gasifier.	U	CO4
5	Explain in detail the energy conservation measures in any chemical or allied industry.	U	CO5