TED (21) – 6012A Reg.No……
(REVISION-2021) Signature…….

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER - 2024

RENEWABLE ENERGY AND ENVIRONMENT

[Maximum Marks:75] [Time: 3 Hours]

PART-A

I. Answer *all* the following questions in one word or one sentence. Each question carries *'one'* mark.

(9 x 1 = 9 Marks)

		Module Outcome	Cognitive level
1.	Define Renewable Energy	M1.01	R
2.	Write any two different renewable energy technologies	M1.02	R
3.	Write any 2 applications of solar thermal energy	M2.01	R
4.	Write the weakness of PV system	M2.03	U
5.	Write the Types of Wind Energy Systems	M3.01	R
6.	Write the Limitations Tidal energy	M3.03	R
7.	What are the applications of Wave Energy	M3.02	R
8.	Define biomass	M4.01	U
9.	What is the classification of bio gas plants?	M4.02	R

PART-B

II. Answer any *eight* questions from the following. Each question carries *'three'* marks.

(8 x 3 = 24 Marks)

		Module Outcome	Cognitive level
1.	Write the difference between Renewable energy and Nonrenewable energy technologies	M1.01	U
2.	Write the Advantages of renewable energy systems	M1.04	U
3.	Explain the detail about geothermal energy technologies	M1.03	R
4.	Write the difference between solar thermal system and PV system	M2.01	U
5.	Draw and Explain Photovoltaic electric conversion	M2.03	R
6.	Explain the Applications of wind energy	M3.01	U
7.	Explain the detail about site selection of wind energy	M3.03	U
8.	Explain the applications of Bio energy	M4.04	U
9.	Write properties of solid, liquid and gaseous fuel for biomass power plants	M4.02	U
10.	Write the Advantages biogas	M4.01	R

PART-C

Answer all questions. Each question carries *'seven'* marks

(6 x 7 = 42 Marks)

		Module Outcome	Cognitive level
III.	Explain the detail about solar Energy and wind Energy **OR** Explain the detail about hydroelectric power station with neat diagram	M1.05	U
IV.		M1.03	R
V.	With the help of neat sketch explain about solar thermal power stations **OR**	M2.01	U
VI.	Explain the detail about any 3 PV technologies	M2.04	U
VII.	Explain the detail about Wind Map of India and Wind Data and Energy Estimation	M3.04	U
VIII.	**OR** Draw and Explain Tidal energy	M3.03	U
IX.	Explain the detail about Wind Turbine Generator with neat diagram **OR**	M3.03	U
X.	Explain the detail about Safety and Environmental Aspects of wind energy	M3.04	U
XI.	Write power plant Properties of solid fuel for biomass power **OR**	M4.03	U
XII.	Draw and explain floating type biogas plant	M4.01	U
XIII.	Explain the detail about fixed type biogas plant OR	M4.04	U
XIV.	Explain the detail about Thermal power station with neat diagram	M4.05	U

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