Name:

Enrolment No:

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2022

Course: Regulatory Framework for Green Energy & Sustainability **Semester: III**
Program: BBA Green Energy & Sustainability **Time : 03 hrs.**
Course Code: OGET2004 **Max. Marks: 100**
Set -1
Instructions:

SECTION A
10Qx2M=20Marks (Answer All Question)

S. No.		Marks	CO
Q 1	What is the CERC and SERC?	**2**	**CO1**
Q 2	What is NLDC, RLDC and SLDC?	**2**	**CO1**
Q 3	What is the full form PNGRB & MNRE?	**2**	**CO1**
Q 4	Name any 2 Power Exchange in India.	**2**	**CO1**
Q 5	What is the ROE? Explain	**2**	**CO1**
Q 6	Name 2 types of Solar Energy.	**2**	**CO1**
Q 7	What is UNFCCC?	**2**	**CO1**
Q 8	Is Solar Energy a Primary form of Energy? Answer with a small argument.	**2**	**CO1**
Q 9	What is Sustainability? Explain.	**2**	**CO1**
Q 10	Expand CEA and APTEL.	**2**	**CO1**

SECTION B
4Qx5M= 20 Marks

Q 1	Explain CUF, PLF and PAF. Also state the relationship between them. Give standard CUF for Solar PV and Wind Energy Power Plant in India.	**5**	**CO2**
Q 2	Explain Regulatory framework for Energy Sector in India.	**5**	**CO2**
Q 3	Critical analyze Current Power Scenario in India (Fuel wise) with targets for 2030.	**5**	**CO2**
Q 4	Name following – a. Minister of New & Renewable Energy, Govt. of India b. Secretary Ministry of Power, Govt. of India. c. Minister of Petroleum & Natural Gas, Govt. of India d. Power Minister of Uttarakhand. e. Chairman of CEA	**5**	**CO2**

SECTION-C
3Qx10M=30 Marks

Q 1	Differentiate among Grey Hydrogen, Blue Hydrogen and Green Hydrogen. Critically analyze Green Hydrogen Policy/Mission in India.	**10**	**CO3**
Q 2	Analyze REC after explaining one of it.	**10**	**CO3**
Q 3	Analyze the India ambitious growth plan for non-fossil fuel up to 2030 with suggestions for better implantation after explaining.	**10**	**CO3**
SECTION-D 2Qx15M= 30 Marks			
	Calculate the Tariff for Solar Plant of 10 MW capacity with help of Following parameters: 1. Capital Cost = Rs. 4 Crores per MW 2. Interest on debt = 10 % per Annum 3. Interest on working capital= 10 % per Annum (Assume working capital as 10% of Capital Cost) 4. CUF= 20 % and Depreciation= 6 % per annum 5. RoE= 14 % per annum 6. O&M Cost – 5 Lakhs per MW per Year		**CO4**
Q1	Calculate tariff for one unit of Power for first year of operation.	**15**	**CO4**
Q 2	How you can bring down this tariff to Rs. 2 per KWh. Please suggest with explanations.	**15**	**CO4**