

Name:	 <b>UPES</b> UNIVERSITY WITH A PURPOSE
Enrolment No:	

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**End Semester Examination, May 2019**

**Course: INTRODUCTORY POWER ECONOMICS**

**Semester: IV**

**Program: BA Economics (Hons.)**

**Time: 03 Hours**

**Course code: ECON 2008**

**Max. Marks: 100**

**Pages : 3**

**Section A**

1	Write Short Note on : <ul style="list-style-type: none"> <li>a. NLDC</li> <li>b. CERC</li> <li>c. Smart Grid</li> <li>d. Unbundling</li> <li>e. Transformer</li> <li>f. Substation</li> <li>g. Load Forecasting</li> <li>h. SCADA</li> <li>i. REC</li> <li>j. PESTEL Analysis</li> </ul>	<b>[10X2]</b>	<b>CO1</b>
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**SECTION B (Attempt all Questions)**

1	Why Hydro power is important for Indian Electricity scenario?	<b>[5]</b>	<b>CO2</b>
2	What is PPP ? Give examples	<b>[5]</b>	<b>CO1</b>
3	What is Demand Management? What schemes can be implemented in Demand Management	<b>[5]</b>	<b>CO2</b>
4	What are the various tools that can be used for Load Forecasting ?	<b>[5]</b>	<b>CO2</b>

<b>SECTION C (Attempt any TWO questions)</b>																																							
1.	Draw block diagram of Coal based Thermal Power operation.	[15]	CO2																																				
2.	Critically analyze the various market structure model of India with International Benchmarks.	[15]	CO3																																				
3.	Prime Minister of India had given target of 175 GW of solar energy that have to be installed by 2022. Is it possible? Justify your answers	[15]	CO3																																				
4.	Critically analyze the economic evaluation of Solar rooftop PV setup. Explain with suitable example	[15]	CO3																																				
<b>SECTION D</b>																																							
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12	Specific Oil Consumption	10 ml/MW*
13	Price of Oil	Rs. 10000/KL
14	Gross Calorific value of Oil	10,000 Kcal/Lit
15	Station Heat Rate	2,425 Kcal/Kwh
16	Cost of Coal	Rs. 1000 / Tonnes
17	Auxiliary Power Consumption	6.50%*
18	Plant Life (For thermal plant based on Coal)	25
19	Gross Calorific value of coal	4800 Kcal/Kg.
<p><b>Calculate the Electricity Tariff after calculating the fixed cost and variable cost.</b></p>		

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**Section A**

1	Write Short Note on :		
	<ul style="list-style-type: none"> <li>a) NLDC</li> <li>b) SERC</li> <li>c) Smart Grid</li> <li>d) Privatization</li> <li>e) Transformer</li> <li>f) Tidal Power</li> <li>g) Load Forecasting</li> <li>h) Micro Grid</li> <li>i) PFC</li> <li>j) Corporatization</li> </ul>	<b>[10X2]</b>	<b>CO1</b>

**SECTION B (Attempt all Questions)**

1	Why Solar is important for Indian Electricity scenario?	[5]	<b>CO2</b>
2	What is PPA ? Give examples	[5]	<b>CO1</b>
3	What is Case 1 and Case 2 Bidding process ?	[5]	<b>CO2</b>
4	What are the various tools that can be used for Load Forecasting ?	[5]	<b>CO2</b>

**SECTION C (Attempt any TWO questions)**

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1.	Draw block diagram of Hydro Power and Gas Power operation separately.	[15]	CO2
2.	Critically analyze the various regulated/deregulated market structure model of India with International Benchmarks.	[15]	CO3
3.	Prime Minister of India had given target of 175 GW of solar energy that have to be installed by 2022. Is it possible? Justify your answers	[15]	CO3
4	Critically analyze the economic evaluation of Solar rooftop PV setup. Explain with suitable example	[15]	CO3

**SECTION D**

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17	Auxiliary Power Consumption	6.50%
18	Plant Life (For thermal plant based on Coal)	25
19	Gross Calorific value of coal	5000 Kcal/Kg.
<p><b>1. Calculate the Electricity Tariff after calculating the fixed cost and variable</b></p>		