

Name:

Enrolment No:



School of Business
UPES
End Semester Examination December 2022

Program: BBA (GES)
Subject/Course: Solar Energy Resource Management
Course Code: OGET 2003

Semester: 3rd
Max. Marks: 100
Duration: 3 Hours

SECTION A
10Qx2M=20Marks

Q.No		Marks	Cos
Q1	What are the 2 most prominent concerns about Solar Power?	2	CO1
Q2	Which of the following is not a Renewable Source of Power Generation: a) Natural Gas b) Biomass c) Bagasse d) Wind	2	CO2
Q3	Write about any 2 advantages of Solar Photovoltaic Cells	2	CO2
Q4	What are Portable Solar applications?	2	CO1
Q5	The installed capacity of Solar Power accounts for the highest percentage share among all Renewable Energy Sources. (True/False)	2	CO2
Q6	What do you understand by the term “Off Grid Solar Applications”?	2	CO2
Q7	Which of the following is not a material used in the construction of Solar Photovoltaic Cells: a) Silicon b) Gallium Arsenide c) Copper d) Tungsten	2	CO1
Q8	Which organization has been set up to facilitate the implementation of the National Solar Mission by the Ministry of New and Renewable Energy (MNRE)	2	CO1
Q9	What is understood by “Security of Source” with reference to the importance and relevance of Solar Energy in India.	2	CO1
Q10	The Mission Strategy of the JNNSM suggests to make Solar Heaters mandatory for all buildings. (True/False)	2	CO1
SECTION B 4Qx5M= 20 Marks			
Q11	Discuss about any 2 applications of Passive Solar Techniques.	5	CO2

Q12	Discuss the disadvantages of using coal as a fuel for power generation.	5	CO3															
Q13	Briefly discuss the Mission Strategy under the Jawaharlal Nehru Solar Mission.	5	CO3															
Q14	Explain any 3 ways by which the Government of India has encouraged the generation and use of solar energy.	5	CO2															
SECTION-C 3Qx10M=30 Marks																		
Q15	Discuss the Objectives of the Jawaharlal Nehru National Solar Mission.	10	CO3															
Q16	Discuss 5 advantages and 5 disadvantages of Solar Power.	10	CO4															
Q17	Discuss in detail the benefits of registering a Solar Power Plant for REC Mechanism.	10	CO3															
SECTION-D 2Qx15M= 30 Marks																		
Q18	<p>You have been put in charge of the power sale for a Solar Generating station. Evaluate if you will opt to sell the power on Preferential Tariff or register the generating station for REC Mechanism. The evaluation should clearly highlight the reasons for your choice. The following data may be used for evaluation purposes.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Particulars</th> <th style="width: 50%;">Details</th> </tr> </thead> <tbody> <tr> <td>Preferential Tariff</td> <td>Rs. 5.30/kWh</td> </tr> <tr> <td>Conventional Tariff</td> <td>Rs. 3.10/kWh</td> </tr> <tr> <td>REC Price</td> <td>Floor Price: Rs. 1500/REC Forbearance Price: Rs. 3000/REC</td> </tr> <tr> <td>REC Available for sale in the market</td> <td>10000 RECs</td> </tr> </tbody> </table> <p>Note: The RPO Regulations are strictly implemented in the state.</p>	Particulars	Details	Preferential Tariff	Rs. 5.30/kWh	Conventional Tariff	Rs. 3.10/kWh	REC Price	Floor Price: Rs. 1500/REC Forbearance Price: Rs. 3000/REC	REC Available for sale in the market	10000 RECs	15	CO4					
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Q19	<p>Following is the breakup of RE Power Installed Capacity in India.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Source of Generation</th> <th style="width: 50%;">Installed Capacity (MW)</th> </tr> </thead> <tbody> <tr> <td>Small Hydro Power</td> <td>4923.50</td> </tr> <tr> <td>Wind Power</td> <td>41843.98</td> </tr> <tr> <td rowspan="2">Bio-Power</td> <td>BM Power/Cogen.</td> <td>10205.61</td> </tr> <tr> <td>Waste to Energy</td> <td>495.23</td> </tr> <tr> <td>Solar Power</td> <td>61624.27</td> </tr> <tr> <td>Total Capacity</td> <td>119092.59</td> </tr> </tbody> </table> <p>Based on the above data, comment on India's strategy toward the adoption of Renewable Energy.</p>	Source of Generation	Installed Capacity (MW)	Small Hydro Power	4923.50	Wind Power	41843.98	Bio-Power	BM Power/Cogen.	10205.61	Waste to Energy	495.23	Solar Power	61624.27	Total Capacity	119092.59	15	CO4
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