



Name:  
Enrolment No:

**UPES**

**End Semester Examination, May 2024**

**Course: Wind Energy Resource Management**  
**Program: BBA GES**  
**Course Code: OGET2005**

**Semester: IV**  
**Time : 03 hrs.**  
**Max. Marks: 100**

**Instructions:**

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

S. No.		Marks	CO
Q 1	What is Cut in Speed?	2	CO1
Q 2	What is Rated Speed?	2	CO1
Q 3	What is VAWT?	2	CO1
Q 4	Which is the nodal body for Wind energy Bidding process?	2	CO1
Q 5	What is the role of IREDA?	2	CO1
Q 6	Expand EMD.	2	CO1
Q 7	Under which Ministry Wind energy development comes.	2	CO1
Q 8	What is the present Wind energy capacity in India?	2	CO1
Q 9	What is EIA?	2	CO1
Q 10	Wind Energy is Feasible is state of Uttarakhand. True or False?	2	CO1

**SECTION B**  
**4Qx5M= 20 Marks**

Q 1	What major points that are required for preparing DPR of Wind energy project?	5	CO2
Q 2	Why government should initiate RMU projects in Wind energy sector?	5	CO2
Q 3	Where we can use VAWT and why should we use it?	5	CO2
Q 4	Explain the role of IT in Wind Energy.	5	CO2

**SECTION-C**  
**3Qx10M=30 Marks**

Q 1	Analyze the major points highlighted under New Wind Energy Lease rules.	10	CO3
Q 2	Draw Block diagram/rough sketch of a Wind Power Plant.	10	CO3
Q 3	Analyze the major documents required to be submitted for a Wind energy Bidding process.	10	CO3

**SECTION-D**  
**2Qx15M= 30 Marks**

	<p>Calculate the power output at 100 m and 150 m height of a wind power plant from the following data.</p> <ul style="list-style-type: none"> <li>a. Temperature= 293 Kelvin</li> <li>b. Air Mass Density = 1.2 Kg/m<sup>3</sup></li> <li>c. Blade Diameter= 120 m</li> <li>d. Rated Speed= 13 m/s</li> </ul>		
Q1	Calculate the power output at 100 m and 150 m	<b>20</b>	<b>CO4</b>
Q2	If there is a value difference at the heights, why so? what should government do then?	<b>10</b>	<b>CO4</b>