



# Centre for Open and Distance Learning(CODL) Tezpur University

Tezpur, Assam- 784028

**ASSIGNMENT FOR AUTUMN SEMESTER END EXAMINATION, 2018**

**Course Name - Wind and Hydro Energy**

**Course Code- DRE 104**

**Full Marks= 30**

1. (a) What is the maximum energy available from the wind?  
(b) Explain the time distribution and frequency distribution of wind speed for a site.  
(c) The wind regime at a site is described by Weibull scale parameter of 6m/s and shape parameter of 2. What is the total annual duration in hours for which a wind speed is greater than 10m/s will be available at this site?  
(d) Explain the characteristics of a good wind site.

**3+3+5+4=15**

2. (a) What are the various factors considered in designing a hydroelectric power plant?  
(b) Draw a schematic diagram of a hydropower plant. Explain in brief the various components of this power plant  
(c) Discuss the operation of pumped hydro storage project.

**4+6+5=15**

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