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| Class :**IV/IVB.Tech** | **I Mid-term Examinations** | Date :28/08/2019 |
| Branch **: EEE** | **NEW & RENEWABLE ENERGY SOURCES** | Time :**90 Min** |
| Sub Code : **EE-415** |  | Max.Marks :**18** |

**SECTION-A**

**Answer All Questions: (6 x 1 = 6M)**

1. a) List any two renewable sources of energy. (PO 1,6,7)(CO 1,2,3)**(Understand)**

b) What is the approximate amount of total power generation in India? (PO 1, 6, 7)(CO 1, 2, 3) **(Understand)**

c) What is wind power? (PO 1, 6, 7)(CO 1, 2, 3)**(Understand)**

d) Mention two important wind turbine generator installations in India? (PO 1, 6, 7)(CO 1, 2, 3) **(Understand)**

e) What is meant by Bio Mass? (PO 1, 6, 7)(CO 1, 2, 3) **(Understand)**

f) Write any four differences between renewable and Non Renewable Sources. (PO 1, 6, 7)(CO 1, 2, 3)**(Understand)**

**SECTION-B (1x 6 = 6M)**

1. What is thermo electric generator? Explain its principle of operation and working.(PO 1,6,7)(CO 1,2,3)**(Apply)**

**(OR)**

1. What is MHD? What is the principle behind its working? How it works(PO 1,6,7) (CO 1,2,3)(**Apply)**

**SECTION-C (1 x 6 = 6M)**

1. Draw the characteristics of solar cell and explain about Short Circuit Current Open Circuit Voltage, Fill Factor Efficiency of a solar cell. (PO 1,6,7)(CO 1,2,3)**(Understand)**

**(OR)**

1. Explain the effect of shunt and series resistance parameters on the solar cell performance (PO 1,6,7)(CO 1,2,3)**(Understand).**