S.B. Roll No……..

NON CONVENTIONAL ENERGY RESOURCES

5th//Elect/5520/3552/May'16

Duration: 3 hrs. **M. Marks=75**

SECTION A

Q1) Fill in the blanks: - **1.5x10=15**

a. The _____ plants don't require any fuel.
b. Flat plate collectors can use both _____ & _____ solar radiations.
c. Conversion efficiency of PV cell is _____.
d. Anaerobic digestion involves _____ digestion of biomass.
e. In pyrolysis chemical change is _____.
f. The purpose of the controller is to sense _____.
g. Sluice gates are opened by _____ and no mechanical means is required.
h. _____ is a combination of open and closed cycle.
i. Darrius type motor is _____ starting and has_____speed.
j. Geothermal energy has a _____ heart inside the earth.

SECTION B

Q2) Attempt any FIVE questions: - **5x6=30**

a. Explain the various types of energy resources?
b. What factors influence the selection of a biogas plant?
c. What are the environmental factors associated with wind energy.
d. What is the difference between fuel cell & battery?
e. What do you mean by non-conventional sources of energy?
f. What are the different types of solar collectors?
g. What are the pants of a tidal plant?
h. What are the advantages of MHD generator?

SECTION C

Q3) Attempt any THREE questions: - **3x10=30**

a. Explain the principle working of solar water heater with neat figures?
b. What are present scenarios and future prospects of non conventional energy sources in India?
c. What are the different methods of obtaining energy from biomass explain briefly on method?
d. Explain the construction & working of a lead acid battery.
e. Explain the following OT EC cycle
(1) Open cycle **(2)** Closed Cycle.