

S.B. Roll No.....

NON- CONVENTIONAL ENERGY SOURCES
5TH Exam/Elect/5520/3552/ Nov'16

Duration : 3 Hrs

M.Marks:75

SECTION- A

Q1. Fill in the blanks:

1.5x10=15

- a. Wind is Renewable energy source
- b. Flat plate collector is non..... type collector.
- c. A..... is a source parallel arrangement of solar cells.
- d. The operating cost of MHD power generation is.....
- e. Biogas is mixture of methane and dioxide
- f. Coal is an example of non conventional energy source. (T/F)
- g. _____ is material used for making solar cell.
- h. Plant having generation capacity up to _____kW are micro hydel project.
- i. Gobar gas plant is an example of energy from biomass.(T/F)
- j. _____speed generators are used in wind power generator.

SECTION – B

Q2. Attempt any six questions:

5x6=30

- i. State the advantages of small scale hydro-electric plants.
- ii. What is the principal of hydroelectric power plant? Explain.
- iii. Explain working of Hero's turbine with figure.
- iv. What are the different types of wind mills?
- v. State advantages of fuel cell.
- vi. What is closed cycle in ocean thermal energy conversion?
- vii. Explain the thermo chemical process of conversion of getting different products from biomass.
- viii. What is future prospect of non conventional energy sources in the state of Punjab?

SECTION – C

Attempt any three questions:

10x3=30

- Q3.** Explain the construction and working of a flat plate and concentrating solar collector with neat sketch.
- Q4.** Discuss the working of (a) Solar cooker (b)Solar furnace?
- Q5.** Write note on working of MHD power generation?
- Q6.** Explain the construction and working of fuel cell with neat sketch.