

**PANIPAT INSTITUTE OF ENGINEERING & TECHNOLOGY**

**SEMESTER: 5<sup>TH</sup> (CSE/IT)**

**SUBJECT: ENERGY RESOURCES AND MANAGEMENT**

**PAPER CODE: MC-904 A**

**Time allowed: 3 hrs**

**Max. Marks: 100**

**Note: Attempt 75% of the total marks. Each question carries equal marks.**

1. What are conventional and non-conventional energy source? Write its advantages and obstacles to implement of non-conventional energy sources. (20)
2. Draw the layout of diesel power plant. Discuss the advantage and disadvantage of a diesel engine. State the applications of a diesel power plant? (20)
3. How can wind energy be utilized for electricity generation? What are the applications, advantages, and disadvantages of wind energy? (20)
4. Explain the working of thermal energy power plant with neat and clean diagram. (20)
5. Explain the factors considered in the site selection of Bio-energy plants. Also explain its working with the help of neat and clean diagram. Discuss its advantages and disadvantages. (20)
6. Explain the factors which are considered in the site selection of hydro power plant? Explain its working with the help of neat and clean diagram. Also write its advantage & disadvantage. (20)
7. What are the general principles of energy management? Describes the modern trends and developments towards computerizations of power system. (20)
8. Discuss the current Indian energy scenario. Explain briefly about the energy strategy for future. (20)

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