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# B. TECH.

# THEORY EXAMINATION (SEM-VI) 2016-17 POWER THEFT AND ENERGY MANAGEMENT

Time: 3 Hours Max. Marks: 100

Note: Be precise in your answer. In case of numerical problem assume data wherever not provided.

### SECTION - A

## 1. Attempt all of the following questions:

 $10 \times 2 = 20$ 

- a) What are different Energy Sources?
- **b)** What are Renewable and Non-Renewable energy sources?
- c) What do you mean by Power theft?
- **d**) What are the harmonics in power system?
- e) Explain the meaning of audit in energy.
- **f**) What do you understand by good power quality?
- g) What do you mean by security seals?
- h) List down the various principles involved in energy conservation.
- i) Explain the term energy management and audit.
- j) Write down the strategies of energy security.

#### SECTION - B

## 2. Attempt any five of the following questions:

 $5 \times 10 = 50$ 

- a) What are different ways to improve system efficiency?
- **b)** Write about different industrial and commercial industrial DSM practices.
- c) What are different ways to reduce rising power thefts?
- **d**) Write a note on energy security.
- e) What is the motive behind Demand Supply Management?
- **f**) Explain different terms related to energy systems maintenance.
- **g)** Explain different ways and types of power theft.
- **h)** Explain the concept of Demand Side Management. What is the scope of demand side management? What are different types of DSM activities?

#### SECTION - C

## Attempt any two of the following questions:

 $2 \times 15 = 30$ 

- **3.** Write an explanatory note on problem of Power Theft.
- **4.** What are different load management programs? Explain.
- 5. What is Demand Side Management (DSM)? Explain the DSM strategies.