CBCS SCHEME

USN | | | | | | | | | | |

Librarian
Learning Resource Centre
Acharya Institute of Technology

18EE744

Seventh Semester B.E. Degree Examination, Feb./Mar. 2022
Smart Grid

Time: 3 hrs. Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Module-1

1 a. Define smart grid. What are the attributes of smart grid? **(08 Marks)**
b. Explain device level power system and building integrated power system. **(12 Marks)**

OR

2 a. Write short note on:
i) Electricity network ii) Local energy network
iii) Electric transportation iv) Low carbon central generation. **(08 Marks)**
b. Explain distributed power system and fully integrated power system. **(12 Marks)**

Module-2

3 a. Writ the benefits and drivers of DC power delivery system. **(12 Marks)**
b. Write the goals of intelligrid. **(08 Marks)**

OR

4 a. Write a note on powering equipment and appliances with dc. **(10 Marks)**
b. Explain intelligrid today. **(10 Marks)**

Module-3

5 a. Explain the components of dynamic energy management. **(10 Marks)**
b. Explain role of technology in demand response. **(10 Marks)**

OR

6 a. List the limitations and scope for dynamic energy management. **(10 Marks)**
b. Explain the key features of a dynamic energy management system. **(10 Marks)**

Module-4

7 a. Write a brief note on: i) Lighting ii) Space conditioning iii) Indoor air quality iv) Domestic water heating. **(10 Marks)**
b. Explain industrial motors and drivers. **(10 Marks)**

OR

8 a. Explain equipment Retrofit and replacement. **(10 Marks)**
b. Explain industrial electro technologies. **(10 Marks)**

Module-5

9 a. What is demand side planning? Write a note on selecting alternatives. **(08 Marks)**
b. Explain utility planning process. **(12 Marks)**

OR

10 a. Explain levels of analysis. **(12 Marks)**
b. Write a note on transferability and data requirement. **(08 Marks)**

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