**ACPDM** 

# **Assignment Booklet**

Advanced Certificate in Power Distribution Management

## **ACPDM**

**Course Code** 

**BEE-001** 

**BEE-002** 

**BEE-003** 



School of Engineering and Technology Indira Gandhi National Open University Maidan Garhi, New Delhi – 110 068



#### Dear Student,

This booklet contains the assignments of ACPDM programme for the courses of BEE-001 BEE-002 & BEE-003. It is for your kind information that each course has one assignment, which is based on course material. You are advised to **write your responses in your own words**. This will improve your comprehension skills. Further, you may note that in case the Coordinator / Counselor may summarily reject your assignment response happens to be a copy of assignment response sheet submitted by another student, your assignment **and/or your marks might be made null and void**. Therefore, you are strongly advised not to allow any other student to copy it. **Your assignment marks carries 30%weightage in your Term End Examination (TEE).** 

This to inform that minimum duration of this programme is 6 months and maximum duration is 2 years. Please note that if you fail to submit the assignment of any course in the registered session of 6 months then same set of assignment is valid for one year, after one year you have to upload fresh set assignment of current year for submission.

ou need to submit the assignments as under:

In January Session- By 30<sup>th</sup> April/May (For June TEE); In July Session- By 30<sup>th</sup> October/November (For December TEE)

You can submit your assignment-

At your concern **Study Centre/Regional Centre** on or before the due date (in person).

**Student are advised to get the acknowledgement/receipt while submitting assignment** at Study Centre/Regional Centre concerned in order to fill up assignment submission details in your term end examination form.

We strongly feel that you should retain a photocopy of your assignment answer sheet duly acknowledged by the office of the Coordinator/Local Study Centre (LSC)/ Regional Centre (RC) to avoid any unforeseen situation.

#### **For Formatting Your Assignments**

• On the top of the first page of your Tutor Marked Assignment (TMA) answer sheet, please write the details exactly in the following format:

| Regional Centre (RC) Code:     | Date:         |
|--------------------------------|---------------|
| Local Study Centre (LSC) Code: |               |
|                                |               |
| Enrolment No                   | Course Code:  |
| Name:                          | Course Title: |
| Address:                       |               |
|                                | E mail:       |
|                                |               |
| Signature:                     | Mobile No.:   |

- Please follow the above format strictly to facilitate evaluation and avoid delay.
- Use only foolscap size writing paper (but not of very thin variety) for writing your answers.
- Leave 3 cm margin on the left, top and bottom of your answer sheet.
- Your answer should be logical and coherent.

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### **TUTOR MARKED ASSIGNMENT**

**COURSE CODE: BEE-002** 

#### **ENERGY MANAGEMENT AND IT APPLICATIONS**

Maximum Marks: 100 Weightage in TEE: 30%

Note: All questions are compulsory and carry equal marks.

- Q.1 (a) What is global warming? How is our energy usage influencing it?
  - (b) Discuss the options available for ensuring energy security in the area catered to by your utility.
- Q.2 (a) Explain the need for energy accounting giving examples from your own experiences in a power distribution utility.
  - (b) What is an energy balance? How is it prepared for energy accounting?
- Q.3 Distinguish between a preliminary and a detailed energy audit for a power utility.
- Q.4 (a) Discuss the role of ERCs in helping in the implementation of DSM through power utilities.
  - (b) Explain the terms real-time pricing, time of use rates, strategic load conservation.
- Q.5 Discuss electrical safety procedures for working with
  - a) Voltages up to 650 V and beyond
  - b) Transformers
  - c) Overhead lines
  - d) High voltage equipment
- Q.6 (a) Explain the major causes for fire outbreaks in a power utility. What techniques can be used for handling and preventing such fires?
- Q. 7 Explain the objectives and scope of the Disaster Management Plan of a utility; and Describe the major constituents of the Disaster Management System and their functions.
- Q. 8 Explain how IT can help in reducing AT & C losses and improving the efficiency of power distribution. Give examples.
- Q.9 (a) What is SCADA? Discuss its usefulness for improving the operations of a power distribution utility.
  - (b) What is ERP? Discuss the benefits of using ERP in a power distribution utility.