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

Jan/July 2025

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 30th April/May (For June TEE) ;

In July Session- By 30th 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.
- While solving problems, clearly indicate the question number along with the part being solved. Recheck your work before submitting it.

Wishing you all good luck!

Laser Typesetting by SOET, IGNOU, New Delhi

ACPDM

TUTOR MARKED ASSIGNMENT

COURSE CODE:BEE-001

POWER DISTRIBUTION SECTOR

Maximum Marks: 100
Weightage in TEE : 30%

Note: All questions are compulsory and carry equal marks.

Q.1 (a) What do you understand by load scheduling and Unscheduled Interchanges?

(b) Outline the problems and challenges being faced by your utility and suggest ways in which these could be addressed to improve its overall performance.

Q.2. (a) Outline the aims and objectives of the Electricity Act, 2003. In what sense is it different from the Electricity Acts preceding it?

(b) What are the main objectives and thrust areas of the National Electricity Policy.

Q.3 (a) Discuss the role of Energy Efficiency in the distribution sector in mitigating the demand–supply deficit.

(b) Describe the relevant provisions of IEA 2003 and National Tariff Policy aimed at rationalizing the tariff in the electricity sector.

Q.4 Discuss the role of the Central and State governments, Regulatory bodies, power utilities and the consumers in implementing distribution reforms.

Q.5 Describe the important features of the power distributions system. Outline the advantages of high voltage distribution system (HVDS).

Q.6 What is the significance of Grid Management? Who has the responsibility of Grid Management in your State and your utility?

Q.7 (a) Distinguish between current and voltage transformers.

(b) Describe the equipment required for the construction of a 11/0.4 kV distribution substation.

Q.8 (a) Explain the Criteria for distribution Transformer Selection and Placement.

(b)Which tests can be performed on DTRs before and immediately after installation?

Q.9 (a) Explain the concept of benchmarking. Distinguish between different types of benchmarking.

(b) Explain the importance of KPIs in Power Sector.

Q.10 (a) Distinguish between T&D losses and AT&C losses. What factors contribute to T&D losses in rural areas?

(b) Discuss how the utilities can carry out revenue protection through use of innovative metering, billing and collection techniques.

ACPDM

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.

Q.10 (a) Consider an existing web site of a power distribution utility. List the features of the web site. How would you like to change it to make it more user-friendly?

(b) List the reforms possible through GIS in the power sector.

ACPDM

TUTOR MARKED ASSIGNMENT

COURSE CODE: BEE-003

MANAGEMENT OF POWER DISTRIBUTION

Maximum Marks: 100
Weightage in TEE: 30%

Note: All questions are compulsory and carry equal marks.

Q.1 (a) In the context of your own organization, analyse statement 'Customer relationship management has become an important area for public utilities'.

(b) What do you understand by Supply Chain Management?

Q.2 (a) Why is effective communication important to the managers?

(b) Discuss the reliable methods of communication.

Q.3 (a) Describe Performance Management System with the help of example.

(b) How can a utility implement Franchisee scheme to increase revenue collection and provide better customer care?

Q.4 (a) Explain turnkey contracts in power distribution. Make comparative statement of benefits of turnkey contracts vis-à-vis unit rate contracts.

(b) Distinguish between fixed assets and current assets.

Q.5 (a) Explain the importance of customer satisfaction survey and explain how it is conducted.

(b) Explain the basic process of communication. What purposes are served through vertical communication?

Q.6 (a) What do you understand by the cost-volume-profit analysis.

(b) Explain the process of DPR preparation.

Q.7 (a) Discuss the models of conflict process with examples.

(b) Explain the various methods of resolving conflicts in an organization.

Q.8 (a) Discuss the important factors for motivating employees in an organization.

(b) In your opinion, what should the role of a change leader be in facilitating the changes being brought about due to the power distribution reforms?

Q. 9 (a) Define the objective of budgeting and budgetary control.

(b) Describe different method of costing.

Q.10 (a) Explain the difference between Trial Balance and Balance Sheet.

(b) What is meant by 'Operating Leverage' and 'Financial Leverage'?