

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 2021

**I
G
N
O
U**

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.

This to inform that minimum duration of this programme is 6 months and max. 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.

Please note, assignments submission are prerequisite to appear in your Term End Examination (TEE).

You need to submit the assignments as under:

For January Session- By 30th April/May ; For July Session- By 30th October/Nov.

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 :

RC Code/LSC Code:	
Enrolment No. _____	Date: _____
Course Code : _____	Course Title : _____
Name : _____	Address : _____

Signature :	E mail-----Mob.-----

- 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

TUTOR MARKED ASSIGNMENT**BEE-001****POWER DISTRIBUTION SECTOR****Maximum Marks: 100**
Weightage : 30%**Course Code: BEE-001****Note:** All questions are compulsory and carry equal marks.

- Q. 1 Describe the Electricity Act 2003.
- Q. 2 Discuss the role of stakeholders in distribution reforms.
- Q.3 How would the National Tariff Policy help in realizing the aims and objectives of Electricity Act 2003?
- Q.4 In what ways can the Central Electricity Regulatory Commission help in improving the function of the power utility? Discuss the role of CERC in tariff setting.
- Q.5 (a) Explain Aggregate Technical and Commercial losses (AT&C losses).
(b) Study any utility's system and identify the causes for T&D losses.
- Q.6 (a) What are the various types of Distribution network systems? Describe briefly.
(b) What do you understand by distribution Network Reconfiguration and Network Reconductoring.
- Q.7 (a) Broadly categorized and briefly describes the equipment in a substation.
(b) What is HVDS? Outline its advantages over the LT system.
- Q.8 (a) What are the measures, which can be adopted by a utility to reduce Distribution transformer failure rate?
(b) Differentiate between preventive and breakdown maintenance.
- Q.9 (a) Explain the live line maintenance techniques and tools
(b) Explain the importance of key performance indicators for a utility. Describe the process of benchmarking.
- Q.10(a) What are the measures a distribution utility can take to improve collection?
(b) Who can engage in trading? Which body fixes the trading margins?

TUTOR MARKED ASSIGNMENT**BEE-002****ENERGY MANAGEMENT AND IT APPLICATIONS****Maximum Marks: 100**
Weightage : 30%**Course Code: BEE-002****Note:** All questions are compulsory and carry equal marks.

- Q.1 (a) What do you understand by energy intensity and energy efficiency.
(b) Describe the basic aim of energy security for a nation.
- Q.2 (a) Discuss energy accounting and various problems associated with it?
(b) Justify need for energy auditing with the help of suitable examples.
- Q.3 (a) Describe the importance of ERP and its application areas in distribution.
(b) Discuss "Green House Effect" on Global Environment.
- Q.4 (a) Discuss the measures that should be taken to improve the energy efficiency of buildings.
(b) Explain in brief different types of fire extinguishers.
- Q.5 (a) Describe the benefits of GIS for managing the power distribution system.
(b) Explain why utilities should adopt integrated IT systems rather than standalone applications.
- Q.6 (a) Explain how IT can help in reducing AT & C losses and improving the efficiency of power distribution.
(b) Explain the two types of spot billing technology. What are their relative advantages and disadvantages?
- Q.7 (a) How is an HHD actually used for reading meters?
(b) State the benefits of AMR and outline the hardware requirements for it.
- Q.8 Discuss the usefulness of SCADA for improving the operations of a power distribution utility.
- Q.9 (a) Describe what you can do as a consumer to contribute to DSM and energy efficiency improvement.
(b) Discuss the reasons why DSM has not been taken up actively by utilities in the domestic and commercial sectors.
- Q.10 (a) What should be the disaster management plan for quick restoration of power supply in the event of earthquake?

TUTOR MARKED ASSIGNMENT**BEE-003****MANAGEMENT OF POWER DISTRIBUTION****Maximum Marks: 100**
Weightage : 30%**Course Code: BEE-003****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) (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'?