

PUNJAB STATE TRANSMISSION CORPORATION LTD.

Departmental Accounts Examination-2023 ( 2<sup>nd</sup> Session)

Category – AE / E

Paper III

Roll No. ....

**Commercial Accounting & Other Miscellaneous Technical Knowledge**

Time allowed : 3hours

Max.marks:100

Note:All questions are compulsory

**Question No. 1:-**

**(Marks: 15+5=20)**

- What do you understand by store incidental Expenses? How are these determined and charged ?
- What are the latest instructions for transfer of material from one job to another?

**Question No. 2:-**

**(Marks:5x 4=20)**

Write Short notes on : -

- Valuation of material receipts and issues
- Period end reconciliations.
- Capital spares at generating station & spares service units.
- Store incidental / Storage charges – O&M stores and O&M–cum-capital stores.
- Accounting for advances to supplier

**Question No. 3:-**

**(Marks: 10+10=20)**

- What is the procedure for maintenance of material estimate control register?
- Write procedure for preparation & authorization of store return warrant.

**Question No. 4:-**

**( Marks: 10+10=20)**

- What is the objective & Scope of state Grid code? .
- Explain in detail structure of state grid code.

**Question No. 5:-**

**(Marks: 10+6+4=20)**

- Explain in detail procedure for filing appeal as per PSERC (Procedure for filing appeal before the Appellate Authority) Regulations 2005.
- Explain the following as per CERC (Standards of performance of inter-state transmission licensee) Regulation 2012:-
  - Transmission System availability
  - Restoration time

a)

Store Incidental Expenses or Stock Storage Charges denote the charges which are levied on issues of stock for works to cover material related expenses and Store godown/yard expenses.

An annual estimate of Store Incidental Expenses shall be prepared to cover following type of expenses:

- a) Material related expenses classified under Account head 76.2 'Material Related Expenses'
- b) Store Godown/Yard Expenses. These expenses include work-charged and daily labour employed on handling of stores and custody of stock; and maintenance of store godowns or rent of hired buildings exclusively used for stores. Where hired buildings are used for office and stores, repair and rental charges of such buildings should be distributed proportionately according to the plinth area of the building.

The estimated expenditure thus will appear under

**GH-74(Repair and maintenance),**

**GH-75(Employee Cost-Work Charged and Daily labor), and**

**GH-76( Administrative and General Expenses on account of to material related expenses and store godown/yard expenses)**

Out turn of truck for carriage of material or carriage of material through contractor from railway/carrier's godown to stores or carriage of material from one store to another shall be debited to **GH-76.211-Transportation/Carriage of Materials including loading and unloading.**

Centage rate of store incidental expenses shall be determined on the basis of estimated annual issues of materials. The estimate rate shall be got sanctioned from the competent authority.

In respect of Capital Stores, Store Incidental Expenses shall be booked initially under GH 74,75 and 76. At the end of each month, expenses shall be transferred to GH 15.331 'Store Incidental Expenses Capital' per contra credit to Account Heads 74.9,75.9 and 76.9. These expenses shall be capitalized by applying them at a centage rate to all issue of material to (i) Capital works,(ii) Contractors for capital works and(iii) other Divisions not having stores, for capital works.

In case of O&M and O&M-cum-Capital Stores, Stores Incidental Expenses shall be booked under GH 74,75 and 76. These shall not be applied to receipt or issue of materials for O&M works and will be charge to revenue accounts.

Store Incidental Expenses at the approved rate shall also be levied on materials issued by Capital Stores as well O&M Stores/Mixed Stores in the following cases

- i) Materials issued for deposit works;
- ii) Materials issued under reciprocal arrangements or otherwise to BBMB etc.;
- iii) Materials issued to contractors for works carried out on through rate basis;
- iv) Sale of materials to contractors and other parties;
- v) Recoveries on account of shortage of materials

These charges shall not be levied for materials exchanged between stores.

b)

Transfer of material from one job to another outside the accounting unit or within the same accounting unit should be avoided. Only in case of emergency, it should be made with the approval of concerned Superintending Engineer and the same be routed through Stores. It should be intimated to the Chief engineer/TS and CE/HR, SD&IT and SE/S&D and respective accounting units alongwith the requisite documents with the value. In case of transfer of transformers by one P&M division to another to another accounting unit, the original cost and accumulated depreciation thereof (not on estimated basis) shall also be accounted for in the respective accounting units. All other formalities like issues of SR, SRW and GRN etc. shall be completed with correct value for proper accounting thereof.

Ans 2 (a)

Valuation of material receipts and issues

Material received in stores shall be value at basic purchase price, excise duty, sales tax and freight charges where payable by the Board Material issues shall be valued at weighted average rate However for fast moving items Standard rate System could be followed alternatively. Subsequent increase /decrease in the cost of receipts shall be adjusted in the issue rate prospectively.

Material related expenses such as insurance , octroi, loading and unloading charges, local transport charges etc. shall not be taken into account for determining receipt or issue rate of materials.

Ans. 2 (b)

Period end Reconciliation

The following reconciliations have been provided:-

- i) Quantities as per stock cards and value ledger cards monthly.
- ii) Value as per value ledger cards and General ledger balance monthly.
- iii) Ground balances with stock card balances as prescribed by the Board.

Ans. 2 (c)

Capital Spares at Generating Stations

- 1) Capital spares at a Generating Station purchased prior to commissioning of the Generating station shall be capitalized upon capitalization of the Generating Stations for which the spares are purchased.
- 2) Capital spares purchased subsequent to the commissioning of Generating Stations shall be capitalized upon purchase.

Ans. 2 (d)

Store Incidental/Storage Charges

O&M Stores and O&M-Cum- Capital Stores:-

Store Incidental expenses shall be booked under group heads 74,75 and 76. These shall not be applied to receipts or issue of materials for O&M works and will be charged to revenue accounts of the Corporation. Where materials are issued to Capital works as in case of COS Stores incidental expenses shall be capitalized by applying centage rate as determined in the sanctioned estimate to all issues of materials for capital works. The

credits on this account will be afforded to the Account Heads 74.9, 75.9 and 76.9 broadly in the ratio of estimated expenditure under these heads

Store incidental expenses at approved rates shall also be levied on material issued by capital stores as well as O&M / Mixed stores in the following cases:

- i) Material issued for deposit works
- ii) Material issued under reciprocal arrangements or otherwise to BBMB, HSEB Etc.
- iii) Material issued to contractors for works carried out on through rate basis
- iv) Sale of material to contractors and other parties (10% supervision charges shall also be levied)
- v) Recoveries on account of shortage of materials in stores

ANS. 2 (e)

Accounting for advances to suppliers

Advances to suppliers, irrespective of where it is paid is to transferred to the unit which will handle the accounting. for this purpose a sundry creditors ledger in columnar form showing the amount of advance expenses recoverable and net payable amount has been designed and will be maintained.

3 (a)

Maintenance of materials estimate control register:-

1. Where Initial Works Register is not to be maintained i.e. in case of minor works as and when new work started concerned office shall maintain a Material Estimate Control Register for each sanctioned estimate/ work.
2. The register will show at any point of time the cumulative quantity and value of material received in respect of major items and petty items as per sanctioned requirements.
3. The register will also indicate consumption and balance of material in hand both with regard to the quantity and value on the last day of each Month/FY or on completion of work.
4. The register shall be maintained for all the minor works under capital/ revenue accounts.
5. JE works shall entered quantities in blue /black ink and value in red ink.
6. He shall enter estimated quantities and value of each item at the top of each column provided in case of Electric works. In case of civil works the value of material as per the formula given in the column Schedule of rates or otherwise as approved by the competent authority.
7. AE/AEE shall sign the entries in the register in token of check.
8. Register shall be updated on every receipt of material drawn as per sanctioned estimate. Consumption of the material shall be entered with reference to EMB after the completion of the work. In case of civil works consumption of material shall be entered as per measurements recorded in Works measurement book.
9. Unused material shall be return to store through SRW after completion of work and make entry in the register as minus receipts.
10. In case of annual repairs and maintenance only total value of the material shall be entered in the register. Consumption of material shall be entered with reference to the location where the material is used. AE/AEE shall verify consumption of all major items and initial the entries with date.
11. Monthly transactions of material issued to works shall be posted from each SR and vouchers.
12. No page should neither be torn out nor should any entry be erased or disfigured. Any cutting made should be attested by JE, AE/AEE incharge.
13. Register shall be checked monthly by the SDE and signed by AE/AEE in token of Check.

Preparation and authorization of Store Return Warrant (SRW)

1. JE works shall prepare five copies of SRW as and when require.
2. SRW shall distinctly be shown following details and shall be got approved from the SDO:-
  - i) Sanctioned Estimate no / work to which the material was issued initially.
  - ii) Material code
  - iii) Material description
  - iv) Quantity of material returned
  - v) Earlier SR no. and date of issue out of which material are being returned.
3. Security staff at store shall enter in the material inward register after verifying as per SRW and make entry on SRW.
4. JE store shall compare the material quantity, description and quality of the material as per SRW. He will also scrutinize the completeness, correctness, authorization and get any missing or inaccurate data in SRW filled up/corrected. He shall prepare GRN and got it approved from store incharge and enter GRN no. on SRW.
5. JE store shall return two copies of SRW duly acknowledged for material received on it to the returning person.
6. JE store shall forward on copy of GRN to CE/S&D for computerization and 2 copies of SRW and one copy of GRN to Evaluation Cell.
7. AO/ Evaluation cell shall forward evaluated copy of SRW alongwith U-Cheque to Division office. Evaluation cell shall also enter the material as per GRN on the receipt side of the value ledger.
8. JE works shall acknowledged SRW immediately in the IWR/MECR as material returned to store.

## **Objectives**

The State Grid Code governs the boundary between State Transmission Utility (STU) and Users as well as establishes guidelines for operation of facilities for those who are connected and will use the State Transmission System. It lays down both the information requirements and procedures governing the relationship between STU and Users. The principal objectives of the State Grid Code are:

- o To provide clarity and certainty to the STU, State Generating Stations (SGS) other than inter-state generating stations, including Independent power plants (IPPs) /Captive Power Plants (CPPs) within Punjab, Distribution Licensees, Transmission licensees and Open Access Consumers by stating their respective roles, responsibilities and obligations with respect to the operation of the State Transmission System.
- o To improve the grid stability and set minimum standards of system performance.
- o To define requirement for new entrants i.e. future new generating companies, licensees, CPPs and consumers.
- o To document the common knowledge or normal practice in writing for ease of reference and help in compliance.
- o To lay down in consultation with generators, performance characteristics of generating plants.
- o To improve co-operation by providing a mechanism for clear and consistent disclosure of all information.
- o To provide a level playing field.
- o To indicate how generation and load is to be scheduled and despatched.
- o To actually enforce what is verbally agreed.



## Scope

- 1.3.1 State Grid Code defines the boundary between STU and Users and establishes the procedures for operation of facilities connected to the State Grid.
- 1.3.2 All Users that connect with and/or utilize the State Transmission System are required to abide by the principles and procedures as laid down in the State Grid Code in so far as they apply to that User.
- 1.3.3 The State Grid Code shall be complied with by SLDC as the apex body to ensure integrated operation of power system in the state, STU in its capacity as holder of the Transmission Licence, transmission licensee, State Generating Station (SGS), Distribution Licensees including EHV consumers and Open Access Consumers connected directly with STS in the course of generation, transmission, supply and utilisation of electricity.
- 1.3.4 The State Grid Code shall come into effect from the date of publication in the official gazette of Government of Punjab.

## 2) No. 4 (b) Structure of State Grid Code

The State Grid Code comprises of following parts:

### Part I- General

This section includes :

- o **Management:** The State Grid Code is a live document and has to be periodically reviewed by a competent panel as and when required in the light of experience gained and difficulties faced from time to time. This section formulates the procedures for the same. It also defines the roles and functions of various agencies to ensure that all other sections of the State Grid Code work together in the management of the State Grid Code.
- o **Review Procedures:** specify a procedure for review of State Grid Code to cater to inadvertent omissions and any modifications needed from time to time.

### Part II- Planning Code

Planning Code includes sections on:

- o **System Planning:** specifies the procedures to be applied by STU in the planning and development of the State Transmission System and by other Users connected or seeking Connection to the State Transmission System.
- o **Procedures:** specify procedures to be followed by STU in the development of the State Transmission System in the long term taking into account the requirements for new connection of generation and demand.
- o **Connection Conditions:** specifies the technical requirements and standards to be complied with by STU and other Users connected or seeking Connection to the State Transmission System.

### Part III- Operating Code

Operating Code specifies the conditions under which STU and transmission licensee shall operate the State Transmission System, the Generating Companies shall operate their Power Stations and the Distribution Licensees shall operate their Distribution Systems in so far as necessary to protect the security and quality of supply and safe operation of the State Transmission System under both normal and abnormal operating conditions. This code

includes sections on:-

- **System Security:** describes the general security aspects to be followed by generating companies, STU and all other Users of the State Grid.
- **Operational Planning:** describes the process by which SLDC carries estimation of the demand in its control area and methodology for demand control for ensuring grid security.
- **Outage Planning:** describes the process by which SLDC shall carry out the planning of outage in the STS in a coordinated and optimal manner.
- **Contingency Planning:** describe the steps to be followed by all Users for recovery in case of total or partial blackouts of STS
- **Inter-User Boundary Safety:** describes the procedure to be followed for maintaining safe working practices associated with inter-user boundary operation.
- **Event/Accident Reporting:** describes the reporting procedure of reportable events in the STS

#### **Part IV- Scheduling and Despatch Code**

- **Schedule and Despatch:** Specifies the procedures relating to the scheduling and despatch of Generating Stations and drawal by Distribution Licensees/ Open Access Customers to meet state demand and drawal allocation.
- **Frequency, Voltage and Reactive Power Management:** describes the method by which all Users of the State Transmission System shall co-operate with SLDC and STU in contributing towards effective control of the system frequency and managing the voltage of the State Transmission System.
- **Monitoring of Generation & drawal:** describes the responsibility of all SGS to ensure reliability & performance of generating units and distribution licensee responsibility to comply with scheduled drawal.

#### **Part V- Protection Code**

Protection Code specifies the co-ordination responsibility and minimum standards of protection that are required to be installed by Users of the State Transmission System.

#### **Part VI- Metering Code**

Metering Code specifies the minimum operational and commercial metering to be provided for each User. It also sets out the requirement and procedures for metering.

#### **Part VII- Data Registration Code**

This contains the details of all the data required by STU, which is to be provided by the Users and vice versa.

Q No. 5 (a)

**1. Filing of appeal**

1. Any person aggrieved by a final order made by an assessing officer under Section 126 of the Act, may, within 30 days of the order, file an appeal before the Appellate Authority.
2. The appeal shall be made in the form specified in the Schedule to these Regulations.
3. The Memorandum of Appeal shall be signed and verified in the manner specified in the Schedule to these Regulations.
4. No appeal against an order of assessment under Clause (1) shall be entertained unless an amount equal to half of the assessed amount is deposited in cash or by way of bank draft with the Licensee and documentary evidence of such deposit has been enclosed alongwith the appeal.
5. The appeal shall be accompanied by the fee of 0.5% of the assessed amount subject to minimum of Rs. 100.
6. The fee shall be paid in such form as the Appellate Authority may specify.

**2. Miscellaneous**

1. Subject to the provisions of the Electricity Act, 2003 and these Regulations, the Commission may, from time to time, issue orders and practice directions in regard to the implementation of these Regulations and procedure to be followed on various matters, which the Commission has been empowered by these Regulations to direct and matters incidental or ancillary thereto.
2. If any difficulty arises in giving effect to any of the provisions of these Regulations, the Commission may, by general or special order, do or undertake or permit the Appellate Authority to do or undertake things not being inconsistent with the provisions of the Act which in the opinion of the Commission are necessary or expedient for removing the difficulty.
3. The Commission may, at any time, add, vary, alter, modify or amend any of the provisions of these Regulations.

Qno. 5(b) (i)

**Transmission System Availability**

- (i) The transmission system availability shall be calculated element-wise on monthly basis, in the same manner as provided for in the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, as amended from time to time and any subsequent enactment thereof.**
- (ii) The deemed availability of the transmission elements under outage shall be as specified in the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, as amended from time to time and any subsequent enactment thereof.**
- (iii) The element-wise monthly availability of the transmission system**

shall not be below the availability as given below:

Sl. No.	Transmission Elements	Availability (% of time)
(i)	AC Transmission line	90
(ii)	ICTs	90
(iii)	Reactors	90
(iv)	Static VAR Compensator	90
(v)	Series Compensator	90
(vi)	HVDC (Back-to-back Stations and bi-pole links)	85

Notes:

- (1) Tower collapse shall not be counted for the purpose of calculation of monthly availability of AC transmission line and HVDC bipole line.
- (2) Failure of Inter-Connecting Transformer (ICT) and Reactor shall not be counted for the purpose of calculation of availability of Inter-Connectivity Transformer and Reactor.
- (iv) The element-wise monthly availability shall be certified by the Member Secretary of the Regional Power Committee.

Qno. 5 (b) (ii) **Restoration time:** Restoration time for different types of failures of transmission line and Inter-Connecting Transformer (ICT) and reactors shall not exceed the following time limit:

Sl. No.	Types of failures	Restoration Time (Days)
1.	Insulator failure	1
	Plain Terrain	
2.	Hilly Terrain	2
	Tower after collapse by Emergency Restoration System (ERS)	
3.	Tower after collapse	30
	Plain Terrain	
	River Bed	
	Hilly Terrain	50
		50

4.	Snapping of phase conductor	
	Plain Terrain	2
	Hilly Terrain	3
5.	Failure of earth wire	
	Plain Terrain	2
	Hilly Terrain	3
6.	Failure of Inter Connecting Transformers (ICTs)	
	Restoration of the failed ICT	120
7.	Failure of Reactors	
	Restoration of the failed reactor	120