## **KEY ANSWER TO THE QUESTION**

## **Answer to Question No.1**

#### 1.Choose the correct answer:-

i - b	хi	- b
ii - c	xii	- d
iii – b	xiii	- c
iv - d	xiv	- c
v-d	XV	- b
vi – a	xvi	- a
vii – d	xvii	- b
viii – d	xviii	- a
ix – c	xix	- b
<b>x.</b> – a	ХХ	- a

## **Answer to Question No.2.**

## 2. Choose the correct answer:-

i - d	хi	- a
ii - b	xii	- a
iii – a	xiii	- d
iv — c	xiv	- b
v – d	XV	- a
vi – a	xvi	- a
vii -b	xvii	- b
viii – b	xviii	-b
ix - b	xix	- c
x. – a	хх	- b

## Answer to Question No.3 (a) & (b).

- 3(a). Account Code:- a. Material Transfer Accounts
  - b. Sundry Receivables
  - c. Fixed Assets
  - d. Administration and General Expenses
  - e. Other Debits to Revenue Account
  - f. Prior Period Expenses / Losses
  - g. Revenue from Sale of Power
  - h. Reserve Fund
  - i. Funds from State Government
  - i. Other Liabilities and Provisions

3(b)Account Head:- i) 28.103

li) 44.110

lii) 46.101

lv) 24.210

v) 26.800

vi) 61.710

vii) 61.900

viii) 61.914

ix) 74.100

x) 61.902

## Answer to Question No.4 (i),(ii),(iii),(iv) & (v).

- 4. As per the Electricity Act, 2003, the definitions are as below:-
  - (i). Section 2(23) "electricity" means electrical energy-
    - (a) generated, transmitted, supplied or traded for any purpose; or
    - (b) used for any purpose except the transmission of a message;
- (ii). Section 2(76) "wheeling" means the operation whereby the distribution system and associated facilities of a transmission licensee or distribution licensee, as the case may be, are used by another person for the conveyance of electricity on payment of charges to be determined under section 62 of the Act.
- (iii). Section 2(47) "open access" means the non-discriminatory provision for the use of transmission lines or distribution system or associated facilities with such lines or system by any licensee or consumer or a person engaged in generation in accordance with the regulations specified by the Appropriate Commission;
- (iv). Section 2(61) "service line" means any electric supply-line through which electricity is, or is intended to be, supplied-
  - (a) to a single consumer either from a distributing main or immediately from the Distribution Licensee's premises; or
  - (b) from a distributing main to a group of consumers on the same premises or on continuous premises supplied from the same point of the distributing main;
- (v). Section 2(25) "electricity system" means a system under the control of a generating company or licensee, as the case may be, having one or more-
  - (a) generating stations; or
  - (b) transmission lines; or
  - (c) electric lines and sub-stations,

and when used in the context of a State or the Union, the entire electricity system within the territories thereof;

# Answer to Question.No.5 (a), (b) & (c).

- a) Work order is an order which contains a description and an estimate of cost of a proposed work and also conveys the executive to proceed with it. The commencement of the execution of any work shall not be done unless a work order has been issued by the competent authority. In other words, the final stage in the proposal for the execution of any work, whether of construction, maintenance or any other kind, is the issue of Work Order from the Circle office or such other competent authority who has been authorized to issue such work orders.
- b) With the introduction of Uniform Commercial Accounting System in Electricity Boards, guidelines have been issued with regard to codification of Capital" Work Order Accounting for easy understanding of the procedure.

Accordingly, the estimate numbers and work orders shall be codified as set out below: ESTIMATE No: The estimate to be sanctioned by the Board, Chief Engineers, Superintending Engineers, will bear a 6 digit and an alphabet indicating the first letter of the sanctioning authority as detailed below:

- 1. The first 3 digit will be sub-account code normally Project code followed by Asset Identification code.
- 2. The 4<sup>th</sup> indicates the sanctioning authority.
- 3. The 3 digits following this letter will be the estimate serial number to be assigned by the sanctioning authority.
- c) After budgeting for the required capital expenditures, companies might use the following techniques for evaluating other capital expenditures: *Payback*. This calculates the number of years it will take to recoup the cash spent on a project. A criticism of payback is that the time value of money is not considered and the cash flows over the entire life of the project are not considered.

Accounting Rate of Return or Return on Investment: This approach looks at the increase in accounting profit compared to the increased investment. This approach also ignores the time value of money.

Internal rate of return. This method does consider the time value of money and looks at the cash flows over the entire life of the project. The technique computes the rate that will discount the future cash flows to be equal to the cash outlay for the project.

**Net present value.** This method discounts the project's future cash flows by a predetermined rate, such as the targeted or needed rate. If the cash flows discounted by the targeted rate exceed the cash investment, the project is accepted. That is, the project provides the targeted return or more.

#### Answer to Question No.6.

#### **TENDER EVALUATION:-**

### Tender evaluation to be in accordance with evaluation criteria:

The Tender Accepting Authority shall cause the evaluation of tenders to be carried out strictly in accordance with the evaluation criteria indicated in the tender documents.

## Time taken for evaluation and extension of tender validity:

- (I)The evaluation of tenders and award of contract shall be completed, as far as may be practicable, within the period for which the tenders are held valid.
- (2) The Tender Accepting Authority shall seek extension of the validity of tenders for the completion of evaluation.
- (3) In case the evaluation of tenders and award of contract is not completed within extended validity period, all the tenders shall be deemed to have become invalid and fresh tenders may be called for.

# Process of tender evaluation to be confidential until the award of the contract is notified:-

- (1) Subject to the provision of Section 12 and 13 of the Act, the Tender Inviting Authority shall ensure the confidentiality of the process of tender evaluation until orders on the tenders are passed.
- (2) The Tender Accepting Authority shall cause the information on orders passed on the tenders published in the Tender Bulletin.
- (3) Tenderers shall not make attempts to establish unsolicited and unauthorized contact with the Tender Accepting Authority, Tender Inviting Authority or Tender Scrutiny Committee after the opening of the Tender and prior to the notification of the Award and any attempt by any tenderer to bring to bear extraneous pressures on the Tender Accepting Authority shall be sufficient reason to disqualify the tenderer.
- (4) Notwithstanding anything contained in sub-rule (3), the Tender Inviting Authority or the Tender Accepting Authority may seek bonofide clarifications from tenderers relating to the tenders submitted by them during the evaluation of tenders.

Initial examination to determine substantial responsiveness;

- (I)The Tender Inviting Authority shall cause an initial examination of the tenders submitted to be carried out in order to determine their substantial responsiveness.
- (2) The initial examination shall consider the following factor, namely:
  - a) Whether the tenderer meets the eligibility criteria laid down in the tender documents;
  - b) Whether the crucial documents have been duly signed;
  - c) Whether the requisite earnest money deposit has been furnished;
  - d) Whether the tender is substantially responsive to the technical specifications, commercial conditions set out in the bidding documents including the testing of samples where required.
- (3) Tenders which on initial examination are found not to be substantially responsive under any of the clauses under sub-rule (2) may be rejected by the Tender Accepting Authority.

### Determination of the lowest evaluated price:-

- (I)Out of the tenders found to be substantially responsive after the initial examination the tenderer who has bid the lowest evaluated price in accordance with the evaluation criteria or the tenderer scoring the highest on evaluation criteria specified as the case may be shall be determined.
- (2) In determining the lowest evaluated price, the following factors shall be considered, namely:
  - a) The quoted price shall be corrected for arithmetical errors;
  - b) In cases of discrepancy between the prices quoted in words and in figures, lower of the two shall be considered;
  - c) Adjustments to the price quoted shall be made for deviations in the commercial conditions such as the delivery schedules and minor variations in the payment terms which are quantifiable but deemed to be non-material in the context of the particular tender;
  - d) The evaluation shall include all central duties such as customs duty and central excise duty as a part of the price, but shall exclude sales tax if the bidders are from other States and Tamil Nadu;

- e) In the case of purchase of equipment, the operation and maintenance and spare part costs for appropriate periods as may be specified in bid documents may be quantified, where practicable and considered.
- (3) In order to secure the best possible procurement price, negotiations with tenderer determined s per clauses (1) and (2) above are permissible subject to provisions in Section 10 of the Act.

## Preparation of evaluation report and award of tenders:-

- (I)The Tender Scrutiny Committee or the officer evaluating the tender shall prepare detailed evaluation report which shall be considered by the Tender Accepting Authority before taking a final decision on the tender.
- (2) The evaluation report shall be prepared in the standardized format as may be prescribed.
- (3) As soon as the tenderer qualified to perform the contract is identified, in accordance with section 10(6) of the Act, the Tender Accepting Authority shall pass orders accepting the tender and communicate the order of acceptance to the successful tenderer. The Tender Accepting Authority will also send to the Tender Bulletin Officer a statement of evaluation of tenders with a comparative statement of tenders received and decision thereon for publication in the Tender Bulletin.
- (4) Within such reasonable time as may be indicated in the tender documents, the tenderer whose tender has been accepted will be required to execute the contract agreement in the prescribe format.
- (5) In case the successful tenderer fails to execute necessary agreements as prescribed within the period specified, then his Earnest Money Deposit shall be forfeited and his tender held as non-responsive.

## Answer to Question No.7(a) & 7(b)

- **7. (a)** Sec 19. (1) If the Appropriate Commission, after making an enquiry, is satisfied that public interest so requires, it may revoke a license in any of the following cases, namely: -
  - (a) where the licensee, in the opinion of the Appropriate Commission, makes willful and prolonged default in doing anything required of him by or under this Act or the rules or regulations made there under;

(b) where the licensee breaks any of the terms or conditions of his license the breach of which is expressly declared by such license to render it liable to revocation;

(c) where the licensee fails, within the period fixed in this behalf by his license, or any longer period which the Appropriate Commission may have granted there for - (i) to show, to the satisfaction of the Appropriate Commission, that he is in a position fully and efficiently to discharge the duties and obligations imposed on him by his license; or 15 Sale of utilities of licensees, and obligations imposed on him by his license; or (ii) to make the deposit or furnish the security, or pay the fees or other charges required by his license;

- (d) where in the opinion of the Appropriate Commission the financial position of the licensee is such that he is unable fully and efficiently to discharge the duties and obligations imposed on him by his license.
- (2)Where in its opinion the public interest so requires, the Appropriate Commission may, on application, or with the consent of the licensee, revoke his license as to the whole or any part of his area of distribution or transmission or trading upon such terms and conditions as it thinks fit.
- (3)No license shall be revoked under sub-section (1) unless the Appropriate Commission has given to the licensee not less than three months notice, in writing, stating the grounds on which it is proposed to revoke the license, and has considered any cause shown by the licensee within the period of that notice, against the proposed revocation.
- (4) The Appropriate Commission may, instead of revoking a license under sub-section (1), permit it to remain in force subject to such further terms and conditions as it thinks fit to impose, and any further terms or conditions so imposed shall be binding upon and be observed by the licensee and shall be of like force and effect as if they were contained in the license.
- (5) Where the Commission revokes a license under this section, it shall serve a notice of revocation upon the licensee and fix a date on which the revocation shall take effect.
- (6) Where an Appropriate Commission has given notice for revocation of license under sub section (5), without prejudice to any penalty which may be imposed or prosecution proceeding which may be initiated under this Act, the licensee may, after prior approval of that Commission, sell his utility to any person who is found eligible by that Commission for grant of license.

## 7 (b). Shifting of Service Connection / Deviation of Lines and Shifting of Equipments:

Wherever the consumers request for shifting the service connection as specified in the Supply Code, or for deviation of the existing lines at their cost the following time schedule shall be observed for completing these works after getting the expenses as specified in the Distribution Code / Supply Code

- 1. Shifting of meter / service 1 [25] days
- 2. Shifting of LT / HT lines 60 days
- 3. Shifting of Transformer structures 90 days

The time schedule given above includes the time required for preparation of estimates, collection of deposits, etc. The accounts should be settled within three months from the date of completion of shifting work by recovery of excess expenditure or refunding the balance deposit.

[Note: The time taken by the Consumer to remit the prescribed charges from the date of receipt of demand notice will not be covered in the above time schedule. In exceptional / deserving cases, permission may be granted by the respective Chief Engineer and Superintending Engineer (or the person designated for this purpose by the Licensee) for remittance of charges by the Consumer beyond the prescribed fifteen Days for HT/EHT and LT services respectively ]

## Answer to Question No.8 (a) & (b)

### 8 a). Deposit Contribution Works Estimate:

To be prepared based on the request of the consumer. Estimate to be prepared and communicated to the applicant with a request to make the estimate cost as deposit duly fixing due date for payment. Commencing the execution of work after receipt of Deposit amount towards the cost of works. Work order to be closed and the consumer is either to make addl. Payment if any or to get refund. Transfer the total actual expenditure as asset through journaliation.

DCW estimate to be prepared for the following works (Ref: B.P No. 1594 dt 05.11.1975),

1. Replacement of stolen/burnt meters,

2. Deviation of HT/LT Lines, Cables etc. at the request of the consumer,

3. Shifting of Lines / services, Ref.

SE/IEMC/EE/AEE/F.Instruction/D269/95 (Tech.Br) dt.09.06.95 P.279 - 283/1995

4. Replacement of Board properties damaged due to dashing of Vehicles or due to persons,.

#### **Four Part Estimate**

Ref. (B.P. No. 449 dt. 01.09.1980) To be prepared when dismantling and replacement of an obsolete and damaged assets arise. When an asset is removed from service either

by way of replacement or by permanently discarding it, the value of the old asset is to

removed from the Asset base.

Part I: Gross Value of the New Asset to be created (A/c No. 14 Work in progress head) Part II: Total Depreciation so far written off on the old asset - 90 % of the value of the asset - (Debit with A/c. No 12.600)

Part III - Written down value of the old asset/ Scrap Value being 10 % of the original value of the asset - Chargeable to Stock A/c. (Debit to 22:300 is for Devolution)

Part IV - Chargeable to Fixed Assets (Credited to Group Code 10.

### 8 b). T & D Scheme:

As per TNEB per B.P. (FB) No.83 (Technical Branch) dated: 16-5-1998 TNEB approved the Internal Rate of Return Method as a standard method for establishing the financial viability of all the T & D schemes with the following assumption:-

- i) The life period of the equipments in the substations and other projects varies between 15 to 35 years. It is proposed to evaluate the IRR for a period of 15 years and the residual value 20% at the end of the 15 years.
- ii) the production cost of energy shall be the average of the cost at generating end the cost at HT end
- iii) The rate of realisation as furnished from time to time shall be the selling price for additional energy sold
- iv) To account for the escalation during the 15 years period, the following percentage may be assumed for the escalation and compounded
  - 6% for the 0 & M Cost
  - 6% for the rate of realisation and Production cost
- v) The 0 & M Expenses shall be 5% on investment cost
- vi) In general, if the IRR so derived on the above mentioned assumption is more than 12% the project is considered viable. ( for schemes posed to lending agencies the percentage fixed by them shall govern the viability)

Wherever the IRR is less than 12% and is not negative, the scheme can be considered as a special case, explaining the reasons for the low return. If the IRR is negative, the investment proposal shall not be considered for sanction.

- vii) The following cases shall however be exempted from the computation of IRR
- a. Schemes of distribution projects such as extension of distribution system for pumping, hut, electrification etc., which are based on socio economic considerations.
- b. Schemes which are essential and proposed from the view point of reliability, grid stability, operational flexibility and maintaining the quality of supply as per I.E. Act which are to be executed irrespective of whether revenue is earned or not.