

## Key to the Questions

### Answer to Q.No.1

- a) (i) Rs.200  
 (ii) Rs.4,800  
 (iii) Rs.7,200  
 (iv) Rs.15,000  
 (v) Rs.200

- b) (i) LT Tariff V - 18 KW - Non CT service - Bi-monthly billing-monthly average bill Rs.8000:

Deposit required=Rs.8000X3=Rs.24,000	
Already available SD	= Rs. 8,000
	(-)
ASD Required	= Rs.16,000

- (ii) HT Tariff IA.

Rs.50,000 + Interest 9% p.a as on 31.03.2015	=Rs.54,500
Rs.60,000=> 17.06.2014 – 20,000 – 9 months + Interest	=Rs.21,350
17.07.2014 – 20,000 – 8 months + Interest	=Rs.21,200
17.08.2014 – 20,000 – 7 months + Interest	=Rs.21,050
	Rs.1,18,100

- (iii) LT Tariff III B – 63 KW – CT service connection-Monthly Billing.

Average Billing	- Rs.20,000 p.m	
SD required	- Rs.20,000X2	= Rs.40,000
Already available	- Rs.80,000	

Therefore **No ASD** has to be demanded from this service connection during the Financial Year 2014-15.

### Answer to Q.No.2

- i) "Consumer" means any person who is supplied with electricity for his own use by a licensee or the government or by any other person engaged in the business of supplying electricity to the public under this Act or any other law for the time being in force and includes any person whose premises are for the time being connected for the purpose of receiving electricity with the works of a licensee, the Government or such other person, as the case may be.
- ii) "Power system" means all aspects of generation, transmission, distribution and supply of electricity and includes one or more of the following, namely:  
 (a) Generating stations;

- (b) Transmission or main transmission lines;
  - (c) Sub-station;
  - (d) Tie-lines;
  - (e) Load despatch activities;
  - (f) Mains or distribution mains;
  - (g) Electric supply-lines;
  - (h) Overhead lines;
  - (i) Service lines;
  - (j) Works;
- iii) "Generating station" or "station" means any station for generating electricity including any building and plant with step-up transformer, switch-gear, switch yard, cables or other appurtenant equipment, if any, used for that purpose and the site thereof; a site intended to be used for a generating station, and any building used for housing the operating staff of a generating station, and where electricity is generated by water-power, includes penstocks, head and tail works, main and regulating reservoirs, dams and other hydraulic works, but does not in any case include any sub-station;
- iv) "Transmission lines" means all high pressure cables and overhead lines ( not being an essential part of the distribution system of a licensee) transmitting electricity from a generating station to another generating station or a sub-station, together with any step-up and step-down transformers, switch gear and other works necessary to and used for the control of such cables or overhead lines, and such buildings or part thereof as may be required to accommodate such transformers, switch-gear and other works.
- v) "Works" includes electric line, and any building, plant, machinery, apparatus and any other thing of whatever description required to transmit, distribute or supply electricity to the public and to carry into effect the objects of a license or sanction granted under this ACT or any other law for the time being in force.

**Answer to Q.No.3**

- a) i) 90%
- ii) 95%
- iii) 95%
- iv) 100%
- v) 95%

b) Procedure for handling of complaints on Non-compliance as per Regulation (20) of DSOP:  
 The Licensee is required to maintain standards of performance for supply of Electricity to all consumers in a manner prescribed. The time limit prescribed in these standards refer to the maximum time required to be taken to perform different activities of consumer service. It shall be the endeavour of

the Licensee to provide best possible service well within time limits specified in these regulations.

- i. The Licensee shall register every complaint made by a consumer whether orally or in writing regarding failure/meter board/service lines, payment of bills and other services relating to supply of power, in the registers exclusively maintained under the following categories:
  1. Supply related complaints register.
  2. Meter related complaints register.
  3. Billing and payment related complaints register.
- ii. A unique number shall be allotted to each complaint and conveyed to

the consumer. In case of complaints which are supply related and restoration of supply, authorized persons of Licensee shall prepare an acknowledgement slip in duplicate after attending to the complaint and get the consumer signature. Where the consumer refuses to sign in the acknowledgement slip, the fact shall be recorded and a copy handed over to the consumer. As a measure of precaution and proof of having visited the consumer's service location, the Licensee's employee shall also record the meter reading of the respective service and any one of the adjoining service connection in the acknowledgement slip. The designated officer shall entertain any complaints from the consumer for noncompliance, only if the complaint is accompanied with a copy of acknowledgement slip. The Licensee shall ensure redressal of all complaints promptly.

- iii. Complaints in respect of supply of electricity, its metering, billing and payment thereof, shall be made at the offices specified by the Licensee. The Licensee shall publish through public notices, local News paper, TV, Radio, printing in the bills and receipts, etc., the name of the office(s), its address(s), telephone number where the consumer can lodge complaints. The phone services for recording complaints when outsourced by the Licensee, the phone numbers of such call centers shall be incorporated in electricity bills and also displayed at the concerned offices of the Licensee.
- iv. The office where a complaint is registered shall dispose it and if any instruction/sanction is to be obtained from higher authority, it shall be obtained by the complaint registering office. The higher authority may also directly communicate the decision. The complainant should not be required to approach such higher authority. Similarly in case an outsourced phone service is opted for, the complaint shall be forwarded to the concerned officer by such center itself and the Licensee shall ensure proper compliance by the outsourced service, including posting of its officers at such centers to streamline responses.
- v. Complaints against non-registration of complaints and failure to perform within the time limits and/or to meet the performance targets, as specified in this regulation, shall be made to the concerned officers of the Licensee. The Licensee shall nominate the officers too whom the consumers can lodge their complaints initially and also the next level higher officer.

vi. In case a consumer is not satisfied with the disposal of the complaint even after taking the issue at the higher level, the consumer can approach the consumer grievance redressal forum.

**c) Procedure for Payment of Compensation as per Regulation(22) of DSOP:**

a. The claim for compensation shall be dealt with in the following manner

**i) Automatic:** This mode of payment requires the Licensee to pay the compensation amount to the affected consumer automatically, following the non-compliance to a particular standard in the next billing cycle through credit entry in the consumption bill.

**ii) Upon claim:** An aggrieved consumer has the right to claim the compensation for non-compliance of the standards if the Licensee fails to pay the compensation in the next billing period by representing to the designated employee of the Licensee.

#### Answer to Q.No.4

- a) i) Rs. 2.5 Lakhs  
ii) 3%  
iii) Rs. 1.5 Lakhs  
iv) Rs. 2 Lakhs

**b) Slab rate of Income Tax:**

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|---|---|
| (1) Where the total income does not exceeds<br>Rs.2,50,000                        | : Nil   |
| (2) Where the total income exceeds<br>Rs.2,50,00 but does not exceed Rs.5,00,000  | : 10% of the amount<br>by which the total income<br>exceeds Rs.2,50,000                   |
| (3) Where the total income exceeds<br>Rs.5,00,00 but does not exceed Rs.10,00,000 | : Rs.25,000 plus 20% of the<br>amount by which the total<br>income exceeds Rs.5,00,000    |
| (4) Where the total income exceeds<br>Rs.10,00,000                                | : Rs.1,25,000 plus 30% of the<br>amount by which the total<br>income exceeds Rs.10,00,000 |

**c) 194C is applicable** for Payments to contractors/sub-contractors (payable by persons other than individual/HUF)

Income Tax is deducted at source at the time of credit or payment, whichever is earlier, where the amount of sum credited or paid exceeds Rs.30,000.

In the case of payment made to contractor/sub contractor;

1. Being an individual/HUF, @ 1% as I.T

2. Being a person other than an individual/HUF, @ 2% as I.T

**194J is applicable for**

- (1) Fees for professional services or technical services; or
- (2) Royalty; or
- (3) Any sum ref. to in sec. 28 (va) (payable by persons other than individual/HUF)

Income Tax is deducted at source at the time of credit or payment, whichever is earlier, when the aggregate sums credited/paid during the financial year exceeds Rs.30,000, in any of the case. The rate of tax is to be deducted at 10% as I.T.

**Answer to Q.No.5**

**a) (i) Demand Side Management:** The Licensee shall make suitable provisions in the Service Connection Agreements to make it mandatory on the part of selected categories of consumers with a contracted Demand over and above a specified KVA limit ( to be specified by the Commission) to carry out an Energy Audit at their establishment for in-plant load management and for carrying out end use energy efficiency/conservation measures. On their part, the Licensee shall provide such consumers with relevant information relating to energy audits and its methodologies and the financial incentives offered by recognized financial institutions, banks and other government organizations.

**(ii) Power Factor:** The Licensee shall maintain the system power factor at the minimum of 0.9 (Lag) at the interface/s and carry out system improvement measures at strategic points in the distribution system by undertaking useful system studies and installing the required VAR compensation equipment to meet the situation. The Licensee shall also counsel and advice the consumers on the ways and means to improve the power factor in their respective system to the required level. It shall be obligatory on the part of the consumers to improve the power factor to their connected loads to the required level in accordance with the provision made in this code. Every consumer with a power factor less than the stipulated level may be suitably advised to rectify the situation by installing appropriate power factor correction equipment, without prejudice to the levy of compensation charges as per the orders of the Commission from time to time.

**b) The Procedures for Shifting of Service Connection according to TNE Distribution Code:**

The Cost of shifting a new service connection for which line is laid but service connection is yet to be effected shall be borne by the intending consumer. The intending consumer shall pay the above charges in advance in full. The shifting work will be taken up only after the payment is made. The estimate will cover the following:

- (a) Charges for dismantling at the old site.
- (b) Charges for transport from the old site to the new site.
- (c) Charges for re-erection at the new site.

- (d) Depreciated value of retrievable materials, if any, not used at the site should be credited to the consumer.  
 (e) Cost of new materials including transport, if required.  
 (f) Cost of irretrievable materials at depreciated value.  
 (g) Overhead charges.

With regard to shifting of existing service connection, the consumer shall pay all the arrears due to the Licensee, apart from the above shifting charges.

### Answer to Q.No.6

$$\begin{array}{rcl} \text{a) 14.10.2014} & = & 87,145 \text{ KWhr} \\ 14.08.2014 & = & 85,645 \text{ KWhr} \end{array}$$

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$$1,500 \text{ KWhr}$$


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$$\begin{array}{rcl} 200 \text{ Units X Rs.3} & = & \text{Rs. } 600 \\ 300 \text{ Units X Rs.4} & = & \text{Rs.1,200} \\ 1000 \text{ Units X Rs.5.75} & = & \text{Rs.5,750} \end{array}$$

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$$\text{Rs.7,550} + \text{FC Rs.40} \Rightarrow \text{Rs.7,590/-}$$


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### b) HT Tariff III (Commercial)

$$\begin{array}{rcl} \text{SD} & = & 150\text{KVA} \\ \text{Demand Quota} & = & 120 \text{ KVA} \\ \text{Energy Quota} & = & 31034 \text{ Units.} \\ \text{Recorded Energy} & = & 30000 \text{ units X Rs.7/unit} = \text{Rs.2,10,000} \\ \text{Recorded Demand} & = & 100 \text{ KVA} \\ 90\% \text{ of Demand Quota} & = & 108 \text{ KVA} \end{array}$$

Billable Demand = RD (or) 90% of Demand Quota whichever is higher

$$\begin{array}{rcl} \text{Demand Charges} & = & 108 \text{ KVA X Rs.300 per KVA} \\ & = & \text{Rs. } 32,400. \end{array}$$

$$\text{Energy Charges} = \text{Rs.2,10,000.}$$

$$\text{E.Tax @ 5\% on the recorded demand} = \text{Rs. } 12,000.$$

$$\text{Meter Rent} = \text{Rs. } 2,000$$

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$$\text{Total Bill amount} = \text{Rs.2,56,400}$$


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c) LT Tariff V- Minimum Charges = Rs.4.30/Unit

$$\begin{aligned}\text{Quantum of misused energy } U &= a \times (b/c) \text{ KWh} \\ &= 4000 \times (2\text{KW}/4\text{KW}) \\ &= 2000 \text{ Units.}\end{aligned}$$

$$\begin{aligned}\text{Penal charges for unauthorized use of energy} &= [(2 \times 2000 \times 10.5) - (2000 \times 4.30)] \\ &= (42,000 - 8,600) \\ &= \text{Rs.}33,400/-\end{aligned}$$

$$\begin{aligned}\text{E.Tax @ 5\%} &= [(2000 \times 10.5) - (2000 \times 4.30)] \times 5/100 \\ &= \text{Rs.}620/-\end{aligned}$$

$$\begin{aligned}\text{Total Penal Charges} &= \text{Rs.}33,400 + \text{Rs.}620 \\ &= \text{Rs.}34,020/-\end{aligned}$$

### Answer to Q.No.7

a) i) 12.36%

ii) Rs.10,00,000

b) (i) **Capital Expenditure:**

The amount of expenditure incurred to create asset is called capital expenditure.

Ex: Expenditure towards setting up of power plant, capacity addition to a existing power plant, creating transmission lines etc., This also includes Capital WIP.

**Revenue Expenditure:**

Expenditure incurred towards the day to day activities.

Ex: Repairs and Maintenance etc.,

(ii) **Assets:**

Asset is classified as Fixed asset and Current asset.

Ex: Immovable assets like power plant, cash in hand, Bank balances etc.,

**Liabilities:**

It mainly consists of any dues that has become payable. Liability includes current liability.

Ex: Deposits received from consumers, outstanding bill due to suppliers.

(iii) **Types of Work Order:**

a) Token Work Order: On emergency without approval to be within one month Capital Work Order for all departmental work based on estimate sanction.

b) Stock Work Order: For Pole Casting.

c) DCW Work Order: For carrying out work on payment from outsider.

d) Temporary Supply Work Order: For effecting Temporary Supply.

(iv) **Budget Estimate and Revised Estimate:**

Budget estimates are the detailed estimates of the receipts and disbursement of an ensuing financial year.

Revised estimates is an estimate of probable receipts and expenditure for a financial year framed in the course of that year with reference to the transactions already recorded and anticipated for the rest of the year.

### Answer to Q.No.8

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.

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