1. (a).Distribution code. Chapter.3. Para.6-5.(d) (4)

Any two of the following. Each 2 marks.

1. Safety of operating personnel.
2. Adequate space for mechanical and electrical requirement.
3. Mechanical and electrical interlocks to prevent inadvertent operation of equipment.

(b). Supply code Chapter.2. Para.6. (5)

Any 5 of the following. Each 1 mark.

1. Dismantling charges.
2. Transport charges (from old site to new site)
3. Erection charges.
4. Depreciation of old material used at new location.
5. Cost of irretrievable materials
6. Cost of new material including transport.
7. Overhead charges.

(c). MED Manual Volume I .Para.516. Page.199. (5)

Necessity of work. –
Scope of work. –
Specifications and drawings. –
Cost of work. - Allocation under departmental account heads.
Load data like capacity of equipments, feeder etc., feeder regulation
Other technical data like railway crossing, tree compensation, land acquisition,etc., - Expected revenue,
Guarantee- Agreements, details of deposits
Execution method like departmental or other agency,
Establishment – Whether regular staff will do.
Time – Expected commencement and completion

(d). Tender regulation. Para.18.8. (3)

To be returned to the tenderer (1)
By RPAD (1)
Stating that tender was received late (1)

(e). Safety manual. Page128. Para.3,4. (3)

Earthing connection to be done first (1 ½)
Equipment connection to be removed first (1 ½)

2.(a) Electricity Act2003.Preliminary. Part I.2.Definitions . (76). (3)

Wheeling means using the distribution system of a transmission licensee or distribution licensee by other person for conveyance of electricity on payment.

(b).Supply code. Chapter.2. Para.5. Miscellaneous charges. Para (2). (5)

Each point 1 mark.

@ 1.0% of CC charges up to 112 KW.
@ 1.5% for every KW or part thereof above 112 KW for first 2 occurrences.
@ 3.0% for every KW or part thereof above 112 KW for 3rd occurrence.
@ 10% for every KW or part thereof above 112 KW for 4th and subsequent occurrences.
This is not applicable for domestic SC, agri SC and other SC with contracted demand below 18.6 KW (25 HP)

(c). Code of technical instruction. Para.2.12. (3)

1. Lamp system. (1)
2. Two voltmeter system. (1)
3. Earth fault relays. (1)

(d). Supply Code. Chapter.2. Miscellaneous charges. Para (1) (b). (5)

Last 2 assessment total	:	Rs.1,04,531	(2 ½)
10% of above	:	**Rs.10,453/-** Answer.	(2 ½)

(e). Tender regulation. Para.18.4. (4)

(i) Envelope A.

1. Technical specification. (1)
2. Commercial terms. (1)
3. Proof of experience. (1)

(ii) Envelope B.

1. Price bid (1)

3. (a). Distrn standards of performance regulations 2004. Para (20) (i) (ii) . (5)

Licensee shall register every complaint made by the consumer whether orally or in writing in following registers:

Supply related complaint register.

Meter related complaint register.

Billing and payment related complaint register. (1)

A unique number is to be allotted to every complaint and conveyed to the consumer. (1)

After attending complaint licensee shall prepare an acknowledgement slip in duplicate and get the consumer signature. If consumer refuses, fact is to be recorded and copy handed over to the consumer. (1)

As a proof of having visited the SC, meter reading of the SC and of one or two adjoining SCs to be recorded in the acknowledgement slip. (1)

The designated officer shall entertain complaint from the consumer for noncompliance only if the complaint is accompanied by the acknowledgement slip. Every complaint to be redressed promptly. (1)

(b). Distribution code .Chapter 1. Para(2). (z). (3)

(i) Power factor: Real power/ apparent power. (1 ½)

(ii) Average power factor: KWH/ KVAH. (1 ½)

(c). Safety manual. Chapter 6. Page.70 . Para. 6 (1). (3)

Strength of the pole is to be ascertained as to whether it will withstand the additional strain.

(d). Code of Technical instruction. Chapter.2 Annexure – II. Page 39. (6)

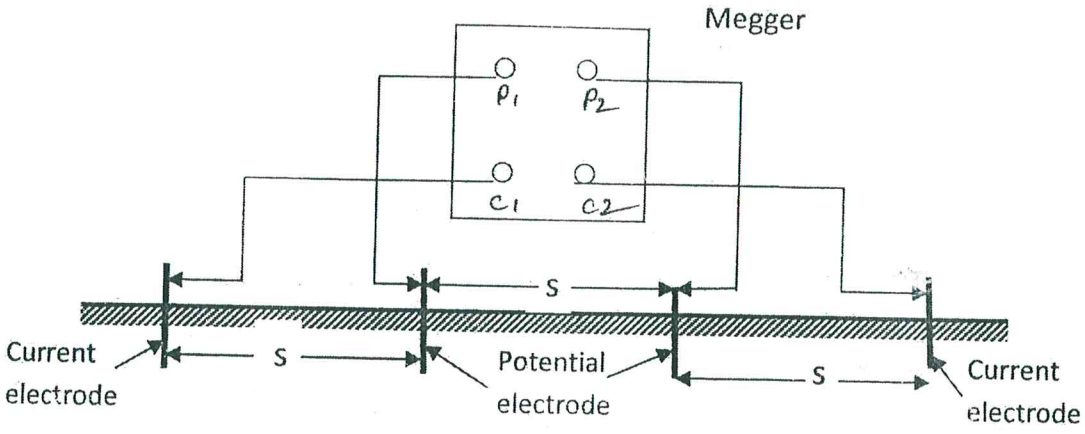
Each point 1 mark.

No	Item of mtce work	Periodicity
1	Earth fault indicating device- Check reading of DC voltage	Every shift
2	Pilot cell voltage, Sp.gr and temp of electrolyte	Every shift
3	Battery cell voltages, Sp.gr and temp of electrolyte	Weekly
4	Equiliser charge	Qtrly or when sp gr falls by 40 points
5	Inspection testing of battery, relays, check up of instruements	Annual
6	Checking control cable for continuity and insulation resistance	Qtrly.

(e). Supply code Chapter (2). 7. Installation of meter para (7): (3)

Average loss = 720 x 1.0 x C/100 units/month.
= 720 x 1.0 x 200/100 = **1440 units/month.** Ans.

4. (a).). Code of Technical instruction. Chapter.9.Page. 328. Fig 9.2. (5)



(b). Supply Code . Chapter 2. Para.19 (6) (b) (4)

Any 4 of following – Each 1 mark.

Usage of electricity

1. By any artificial means
2. By means not authorised by authority or licensee
3. Through tampered meter
4. For purpose other than for which authorised
5. For the premises or area other than for which authorised.

(c).Grid Code. Chapter.7.Para.3 (ii). Page.43.

An element/part of the Grid shall be deliberately isolated from the rest of the State Grid or islanded: (5)

- under an emergency, and conditions in which such isolation would prevent a total Grid collapse and / or enable early restoration of power supply,
- when serious damage to a costly equipment is imminent and such isolation would prevent it,

(d). MED Manual. Page.143. Para.370. (3)

Imprest should be recouped as often as is necessary.

As soon as 50% of the amount is spent.

To be closed on 25th of each month.

(e). Tender Transparency Act. Para.3. (3)

To provide transparency in public procurement (1 ½)
To regulate procedure in inviting and accepting a tender (1 ½)

5. (a). Standards of performance regulations 2004. Chapter (2).Para (12) (5)

Interruption due to	Power restoration time			
	Corporation	Urban Municipalities	Rural	Hill areas
HT supply failure	1 Hr	3 Hrs	6 Hrs	12 Hrs
Fault in Tr structure/ LT line/ Pillar box	2 Hrs	4 Hrs	6 Hrs	12 Hrs
Fault in DT	24 Hrs	48 Hrs	48 Hrs	48 Hrs
Individual SC fault	3 Hrs	9 Hrs	12 Hrs	24 Hrs

(b). Code of Technical instruction.10.03.01. (2)

Any four of following. Each ½ mark.

1. Soda Acid
2. Dry powder
3. Fir buckets with water
4. Chemical foam
5. Carbondioxide
6. Sand

(c). Safety Manual. Page.61. Para.1. (3)

Using discharge rod and observing safety measures the feeder is to be discharged.

The feeder should be earthed on both sides of work spot.

No possibility for back feeding to be ensured.

AB switch opened should be locked.

(d). Grid code. Chapter.4.Page.15. Para.10. (6)

i. To determine the rate, charges and terms for the use of the transmission facilities of Licensees

ii. To specify the fees and charges payable to SLDC

iii. To issue directions on matters of non compliance of TNEGC or to take decisions on any dispute referred to them.

iv. To issue transmission licenses.

v. To issue amendments to the TNEGC as and when required.

(e).Supply Code.Chapter.2. Para.11.(2). (4)

Average units to be billed for 4/2014= (280+260)/2 = **270 Units.**

6. (a). Manual Page129. Para.341. (4)

Budget is prepared in Central office.

Revenue statement should have actual of last year and probable estimated.

Sources revenue should be suitably grouped.

New sources of revenue and additional revenue expected should be taken into consideration.

(b).Code of technical instruction. Para.3.08.01. (4)

1. For improving the chemical, thermal and electrical quality of oil. (2)
2. Done when respective prescribed parameters show deterioration.(2)

(c). TN Transparency in Tender Rules 2000. Chapter.5. Para.22. (4)

On opening the tender:

a. Members of Tender scrutiny committee shall initial the main bid, commercial bid and any correction. A record of corrections noticed shall be maintained.

b. Name of tenderer and quoted price to be read aloud.

c. The fact of EMD deposit, other documents produced to be indicated.

d. Minutes of tender opening to be recorded. Signatures of tenderers present to be obtained ,

(d). Grid code. Chapter.4. Para.3. Page.13. (4)

1. To maintain and operate the transmission system which are licensed to him in the intra state transmission system and comply with the directions of RLDC and SLDC.

2. To provide non discriminatory open access to its transmission system for use by any licensee or generating company or other users on payment of the charges as determined by the Commission

(e). Supply Code. Chapter.2. para (4) (c). (4)

BPSC to be levied = 5000x (1.5/100) x 2 = **Rs.150/-**

7. (a). Grid Code. Chapter.2. (3)

Each ½ mark.

(i) ABT	:	Availability Based Tariff
(ii) HVDC	:	High Voltage Direct Current system
(iii) CEA	:	Central Electricity Authority
(iv) SLDC	:	State Load Despatch Centre
(v) STU	:	State Transmission Utility
(vi) CERC	:	Central Electricity Regulatory Commission

(b). Distribution Code. Chapter .3. Para (1) (4)

To plan, design & develop a distribution system so that it can be operated in economical safe and reliable manner confirming to relevant act and rule.

To specify tech conditions to meet set standards of operation.

To define procedure for exchange of data between licensee and consumer.

To provide consumer sufficient information to access opportunity for connection.

To establish methods through which a licensee can coordinate with STU.

(c). Safety Manual. Page.73. 2-1. (3)

Air should be blown and the cliff of the ~~glouse~~ gloves is to be rolled to detect any holes present.

This test is to be done every time before the ~~glouse~~ gloves is used.

(d). Tender Regulation. Para.9.1. (5)

Description of material to be supplied or work to be done.
Time and place where tender documents may be pursued.
Authority from whom forms, plans, specification and tender documents can be obtained.
Due date and time for submission of tender.
Place, Date and time of tender opening.
Probable amount of contract.
Cost of tender documents and EMD.

(e). Supply Code. Chapter.2. Para.(5). (2). (1). (5)

Exceeded demand = 1050-900 = 150 KVA (2 ½)
Excess demand charges= 2x150x300 = **Rs.90,000/- Ans.** (2 ½)

8. (a). Distribution standards of performance. Chapter.2. Para.3. (3)
Providing uninterrupted, reliable electric supply at stipulated voltage and frequency. (1 ½)

Prompt compliance of consumers' complaints on metering & billing. (1 ½)

(b). Supply Code Chapter (2). Para 5.(5) (6)

Month	Assesssed amount in Rs.
05/2012	16,983
07/2012	19,098
09/2012	19,523
11/2012	13,055
01/2013	14,084
03/2013	14,508

Average assessed amount = 97,251/12 = Rs.8,104/- (2)

Required SD = 8104 x 3 = Rs.24,312/- (2)

ASD to be collected = 24,312-18,978 = **Rs.5,334/-** (2)

(c). Safety Manual Chapter.6. (3)

Any 3 of following – Each 1 mark,

Prone pressure method
Hip lift back pressure method
Eve's rocking method
Neilsen's arm lift back pressure method
Arm lift chest pressure Silvester method

(d). MED Manual. Page.5. Para.43. (3)

Order of competent authority sanctioning detailed estimate of cost of construction, repair and maintenance proposed to be carried out. Manual P.5.

(e). Code of Technical Instructions 13.07.01 & 13.07.02. (5)

HT Lines:

Line on Metal pole: Every 5th pole, and all supports provided with mass concrete to be earthed.

Lines on RCC/PSC Poles: The metal X arm and insulator pins to be bound together and earthed at every pole. (2 ½)

LT Lines:

Line on Metal pole: Every 5th pole, and all supports provided with mass concrete to be earthed.

Lines on RCC/PSC Poles: The metal X arm and insulator pins to be bound together and earthed at every 5th support. (2 ½)