

Answer

Paper-I

(Works Accounts for Electrical Candidates)

Q.1. Write a short note on the following:-

i) Register of dismantlement.

Ans. The form CE-43 Register of Dismantlement has been designed. As and when the material is dismantled from a work, an inventory of all the materials dismantled, whether in serviceable or unserviceable conditions should be prepared and entered in the same in the Register of Dismantlement. The entries in this register are made article wise by entering name of article, present value, Quantity, unit, depreciated value and how the same has been disposed is also recorded. The SDO should verify the inventory and in token record his initial. It is a good tool to have a control over the material dismantled from the works and watch its disposal.

ii) Stock Verification Report.

Ans. The Stock Verification Report is prepared in Form MAT-54. It is prepared by the officer/official who is conducting the verification of store. While verifying the item wise detail by mentioning quantity as per Stock card, Quantity actually measured, surplus/shortage noticed, if any, is recorded. The Verification also contains the certificate that quantity actually verified has been entered in the stock card in case of shortage/surplus has been noticed.

iii) Schedule Contract.

Ans. Schedule contracts are those in which the contractor undertakes to execute the work at fixed rates the sum he is to receive depending on the quantities and kind of work done or material supplied.

iv) Connected Load Register.

Ans. Connected Load Register is maintained in every operation Sub office/Sub Divn. Connected Load Register is maintained for balancing the load on feeders by phases and anticipating the necessity for augmenting the capacities of feeders switches & transformers.

Following entries are recorded in the Register:

- a) Increase in load by grant of new connections/ allowing extension load.
- b) Decrease in load by permanent disconnection.
- c) Decrease in load by allowing reduction in load.
- d) At the end of the month total connected load is worked out Statement of connected load is prepared from this Register & sent to Divn. Office.

Q.2 (a) Define Electrical Measurement Book & Small Measurement Book.

Ans. Electrical Measurement Book:- Electrical Measurement Book is intended for verification of materials issued direct to an estimate for an electrical work (Service connections, distribution lines etc.) constructed departmentally or under piece work/construct at labour rates. It is maintained by the J.E. for all works costing less than Rs.1 lac Column No.7 of this book is filled by J.E. for the receipt of material and column No. 8 is filled by the AAE/SDO against each item. Shortage/Surplus is worked out by the SDO by comparing the entries of column No.7 with Column No.8 and filled in column no.9.

Small Measurement Book:- Small Measurement Book is maintained by J.E. to record detailed accounts of actual measurement of work done by daily labour or by contractor or a material received for use on work. For large works separate M.B. may be set apart. After recording measurement, an abstract should be prepared to show total quantities of each item or work. Each measurement for work done by contractor should indicate reference to last set of measurement also.

2 (b) Write the rules for keep up the value ledger cards.

Ans. Rules for Maintenance of Value Leger Cards as under:-

1. At the beginning of the year Store Clerk/Computer Cell/Evaluation Cell open new Value Ledger Cards (VLCs) for all materials items handled at the stores having distinct material codes under dated signatures of SDO stores/ AO Evaluation Cell Keep the Value Ledgers under lock and key.
2. Open a separate set of VLCs for:
 - (i) Obsolete items
 - (ii) Scrap
 - (iii) Dismantled Materials
 - (iv) Fixed Assets (dismantled) returned to stores.
3. On opening of new cards enter the following on VLCs:
 - (i) Sr.No.
 - (ii) Stores location code
 - (iii) Material code
 - (iv) Material description
 - (v) Unit of measurement
 - (vi) Category of material item i.e. A.B.C.
 - (vii) Standard/non standard item
 - (viii) Old VLC number
 - (ix) Stock Quantity Card number
4. Place the Value Ledger Cards in serial order accounting to code numbers and Sub Groups as per Stock Classification Lists.
5. On same day post receipts and issues from store documents viz GRNs, SRs, SCs received from stores after evaluating these documents.
6. Keep the account of containers without value in the value ledger cards like other articles. Leave the columns relating to value blank.
7. When a Value Ledger Card is filled up add a new Card, Complete the entries in the top portion of the card. Write dow the balances brought forward. Get these entries initialed with date by the officer incharge. Remove the written up cards and keep them in a separate binder under lock and key.

8. Upon physical verification of stores enter shortages/ excess in the Value Ledger Cards, as issues and receipts giving reference to Stock Verification Reports number and date.
9. At the month end ensure by means of stores documents cut off lists received from stores that all stores documents created have been received and posted in VLC. It should be done every month.
10. Strike totals of receipts issues and balance columns. It should be done every month.
11. Reconcile quantity balances as per VLCs with those as per Stock Cards by following procedure as per subject code 38. It should be done every month.
12. Reconcile value balance as per VLCs with General ledger for each material group by following procedure laid down in subject code 39. It should be done every month.
13. The posting of Value Ledger should in no case been trusted to store keeper or any other unauthorized person viz. LM/ALM etc.

Q.3 a) What are the instructions to write a Cash Book?

Ans. Cash book is an important document to record the receipt and payment, following points should be kept in mind to write a cash book :-

1. Every entry should be concise. The date number of vouchers if any, the name, the work and such briefs narration will indicate unmistakably the nature of transaction must be entered against each item. The amount debit or creditable to each separate work head of account on contractor or other person should be entered separately. The amount of a cancelled cheque should be shown as a special write back entry as minus figure on the payment side in the Bank Col. 14 and a counter reference be given against the original entry in the cash book.
2. Transaction should be recorded at the time and on the date on which they actually occur and strictly in the order of occurrence. If, however, owing to the absence of the disbursing officer on tour, a cheque issued by him, whilst in camp, is entered in the cash book maintained at his H.Q. on a subsequent date, the actual date of issue of the cheque should be noted in the cash book as the denominator of a fraction the numerator of which should be the date on which the transaction is incorporated in the cash book. A similar procedure should be observed when the double transaction relating to realization of miscellaneous cash receipts by a subordinate and their payment directly into Bank is incorporated in the cash book of the superior disbursing officer on receipt of receipted pay-in-slip of the Bank from the subordinate.
3. Acknowledgements of payment should be numbered in a separate series for each month and the serial number of each Voucher should be entered in the cash book as soon as the payment transaction is entered in it.
4. The amount of cancelled cheque should be shown as a special write back entry as minus figure on the payment side in the Bank Col. 14 and a counter reference be given against the original entry in the cash book.
5. When a consumer's/outsider's cheque is received back from the bank as dishonored draw a line across the dishonoured cheque. Simultaneously make a minus entry on the receipt & payment side of the cash book (cash column).

6. Where there is a system of making the payment through credit notes to Railway on account of freight, open an additional column on payment side of the cash book. Railway credit note is as good as cheque. Instruction for signing of credit notes and its preservation will be same as for the cheque.
7. Cash in hand, which has so far remained unclassified has been given a separate account code 24.110. Cash received by encashing a self-cheque will be classified under this head and the self-cheque under account code 24.403 Cheque issue account.
8. Every entry in the cash book should be duly attested under his dated initials by the drawing and disbursing office or any other official authorized by the PSPCL.
9. Imprest or Temporary Advance will no longer be treated as a part of the cash balance, but treated as a transaction, just like other items of payment or receipt and classified under account head 24.2.
10. Cash book should have their pages machine numbered. As far as possible, no line should be left blank, but if any space on page of the cash book has to be left blank owing to whole of other page of the same folio being written up completely ' a diagonal line should be drawn to cancel the blank space, so that it may not be possible to make any subsequent entries.
11. Interpolation of entries should be avoided as far as possible, but when it becomes necessary to make, any entries between two ruled line or to make any addition to or interpolation between entries already made, such additions should be attested invariably by the dated initials of the disbursing officer.

3. b) Write down the steps for issuing, adjustment and closing of imprest.

Ans. Whenever an Imprest or temporary Advance is required to be issued a cash or bank payment voucher (CPV/BPV) is prepared, got checked from Divisional Accounts Section & approved by the Sr. Xen. The Divisional Supdt. makes the payment by cash or cheque. After the Imprest holder renders the account (in form C&B-9) it is again checked by Divisional Supdt. (Accounts) approved by the Sr.Xen & payment made to Imprest holder by the Divisional Supdt. (HC) by cash or by cheque as required. The entry of recoupment is recorded in cash book while making payment. If the account is to be adjusted/closed a J.V. (T.E.O.) is required to adjust the account. Entry in Cash Book should not be made.

In cash of temporary advance- the account of expenditure after its approval is adjusted by journal voucher without recording any entry in the Cash Book. Entry in Cash Book is required only if the advance holder has to return some unspent balance in which case entry is for the balance returned & not for the expenditure incurred which is adjusted by J.V. only. A receipt in BA-16 should be issued while accepting unspent balance by the cashier.

Account of the Imprest should be closed as early as possible when the amount is not required but the account must be closed on transfer of the Imprest/ advance holder & in all cases before the close of the financial year i.e. by 31st March.

Q.4 a) You took "Deposit Works" in hand. What must be fulfilled before starting ?

Ans. The following instructions governing the deposit works are prescribed:-

1. The party which desires the PSPCL to undertake any Deposit works, shall state in clear and specific terms, the scope and general plan of work so as to enable the PSPCL to make an estimate for the work involved.
2. The estimate shall be prepared in accordance with the PSPCL's rule. It shall be sent to the party together with a copy of the conditions for Deposit works for acceptance and payment of a deposit equal to the total amount of the estimate. Deposit work shall not be commenced until written approval to the estimate and design is received from the party and the receipt of the deposit amount.
3. The PSPCL does not accept responsibility for unavoidable and reasonable excesses caused by a rise in the price of various material or labour or by other factors which could not be foreseen at the time when estimate was prepared.
4. The PSPCL will call for additional deposit from the party as and when it is anticipated that the expenditure is likely to exceed the amount of the original estimate and such additional deposit shall be paid within 30 days from the date of such demand failing which interest at prevailing market rate will be charged on the amount of the additional deposit from the date of such demand till the date of actual payment. Anticipated excess should also be brought to the notice of the higher authorities by the divisional officers.
5. On continued failure of the party to pay additional deposit as demanded, the PSPCL, may at its discretion, either suspend or cancel the remaining work and the contract, and in that event the PSPCL shall not be liable for payment of any damages whatsoever to the party.
6. The PSPCL does not bind itself for completion of works within any specified time. However, reasonable efforts will be made to complete the work as early as possible and the PSPCL shall not be held responsible for any loss that may be sustained by the party consequent on the delay in the completion of the work by the PSPCL.
7. Any delay in completion, or non-completion, of a Deposit work will not effect any other contract (which the party may have executed with the PSPCL.)

8. All costs of deposit works inclusive of workmen's compensation, insurance, etc. and other costs arising out of or incidental thereto shall be debited to the deposit works as thereof and shall be payable by the party. The party shall be liable and shall pay for the Deposit work on the following basis:-
 - (i) Cost of materials and labour charges.
 - (ii) 24% departmental charges or at the rates approved by the PSPCL from time to time.
 - (iii) Other costs of the Deposit works as here-to-fore mentioned.
 - (iv) Sale tax wherever applicable on the cost of completed work i.e. (i) +(ii)+(iii) at the rates applicable.
9. The PSPCL is not liable to pay any interest to the party on the deposit made.
10. Estimate for deposit work shall be sanctioned by various authorities as per Delegation of Powers.
11. On completion of works or parts of works, the PSPCL shall give notice in writing to the party to that effect. The work should be deemed to have been taken from the 7th day from the date of such notice or from the date of actual taking over, whichever is earlier.
12. The PSPCL would normally send statement to the party by the 25th of every month showing the expenditure under broad heads of accounts incurred up to the end of the preceding month. The statement shall be for the information of the party but shall not be considered to be final and may be subject to such adjustment as may be necessary from time to time. The statements and the final statement on completion of work, shall be binding on the party.
13. Where the work of magnitude or there are any special circumstances, which seem to render such a course desirable arrangement should be drawn up under legal advice.
14. It must be distinctly understood that contribution on account of one work, can in no circumstances, be utilized in meeting outlay on account of another work. The contributories for which may be in arrears.

4. b) Admissibility of concession to work charged establishment. Explain.

Ans. Following concessions/benefits are given to work charged Employees:-

1. Bonus is given to work-charge if his service exceeds 30 days.
2. He is entitled to casual leave like a regular employee.
3. T.A. is also given to Work charge employee as entitled to regular staff.
4. Work charge who is in service before 7.1.2011, entitled for B.E. Electricity Concession.
5. After Retirement, Gratuity is given to work charged under Gratuity Act 1972.
6. Uniform is given to work charge.
7. In case of Death on duty, his family is entitled for compensation.
8. Rs.2000/- as criminal charges is also given.
9. Corporation contributes same proportion in E.P.F. A/c of work charge employee as contributes by him from the wages.
10. He is granted weekly rest, if he has worked for 4 days or more in a week.

Q.5 Write Short notes:**i) Vehicle Log Book.**

Ans. In order to keep proper control on running of a vehicle a Vehicle Log Book is maintained for each vehicle. Details of all journeys undertaken daily are recorded in it showing date/time & Kilometer reading at commencement & end of the journey-total K.M. run- purpose of journey- (official/private). These entries are authenticated by the Officer Incharge of the vehicle. At the end of the month an abstract of the journeys is prepared. When the expenditure is to be booked to works/other Divns. adjustment is carried out by J.V. For private journeys & unauthorized journeys the adjustment is made by debit to Misc. Advance Account.

ii) Out Turn Book.

Ans. Out-turn Book:- Where vehicles are run in Construction Division or on projects, the expenditure on running of the vehicle is charged to the work/project on which it is used. Similarly for running of vehicles for transportation of stores under C.O.S. the expenditure on running is charged to the relevant head.

For carrying out adjustment an abstract of journeys is prepared showing No. of K.M. run for each work/job. A rate per KM is got sanctioned from the competent authority. Charging of the cost of running to particular work (s) is through this register.

iii) Store Incidental Expenses.

Ans. Cost of material purchased upto destination station is treated as procurement cost & is taken into account in fixing Issue Rate. Expenses have to be incurred for transport of material from Railways to our Godown, on handling and watch & ward of store, Mtc. of store godowns or rent of hired building used for stores etc. These expenses constitute Store Incidental Expenses previously known as Storage Charges.

Following expenses are debited to S.I.E. account

An estimate is prepared at the beginning of the year to assess the incidental charges likely to be incurred & total value of materials likely to be issued to

works. A percentage rate is got approved for levying on various issues out of stock to cover these expenses.

S.I.E. shall be added at %age rate to the value of material:-

1. Issued to capital works
2. Issued sale to BBMB/HSEB/HPSEB etc.
3. Issued to contractors
4. Issued of materials for deposit works
5. Issued of materials to contributory works

These charges are not levied in the following cases:

- i) Inter store transfers.
- ii) Issue of material for O&M works.
- iv) Deposit work and contributory work.

Ans. Deposit work and Contributory Work:-Deposit works which are executed at the cost of other parties are of two types:-

1. When after completion, these works shall be the property of the agency that met its cost- these shall be treated as Deposit Works.
2. Which after completion become the property of the Corporation, are treated as Contributory Works. These are not treated as deposit works even though the cost of these works is borne by the consumers/ other agencies for example:
 - (a) Lying of independent feeders for giving supply to the new consumers
 - (b) Where consumers pay the cost of works by way of General and Service Connection Charges.
 - (c) Where consumers opt for connections from urban feeder instead of nearest rural feeder.
 - (d) Cost of link lines borne by the consumers.

model solution
ES S-4/14 P-II

1
1-5

**ENGINEERING SUBORDINATE PAPER
PAPER-II (Consumer Accounting Banking Instructions & Sales)**

Q.1) CT/Meter Ratio = CT Ratio/Meter Ratio = $10/5=2$
Meter Multiplier = 1.5

Consumption

KWH

New reading 94210
Old reading 88540 = $5670 \times 2 \times 1.5$ = 17010

KVAH

New reading 105510
Old reading 98715 = $6795 \times 2 \times 1.5$ = 20385

Power factor $17010/20385 = 0.83$

Energy Charges	17010×6.26	=	106483/-
Fuel charges	17010×0.12	=	2041/-
Total		=	108524/-

Power factor surcharge 1,08,524 @ 7% =	7597/-
SOP	116121/-
ED @ 13% on SOP	15096/-
Octroi 10 paise per unit = 17010×0.10	1701/-
Meter Rent	72/-
MCB Rent	18/-
Service charges	75/-
Total Bill Amount	133083/-

Q.2(a)

Sr.No.Particular	No.	Wattage taken	Load (KW)
1. Lamp 15 watt	20	15 watt	0.300
2. Lamp 60 watt	40	60 watt	2.400
3. Fan	18	60 watt	1.080
4. Wall socket (5 Amp) (1/3 taken)	28	60 watt	0.600
5. Power socket 1 Q (1/2 taken)	7	1000 watt	4.000
6. Power socket 3 Q	2	6000 watt	12.000
7. A.C.	4	2500 watt	10.000
8. Geezer (being run through power socket 1Q) 3	-	-	-
9. Submersible pump	½ BHP	0.746	<u>0.373</u>
Total Load			<u>30.753</u>

Q.2(b) LS consumers having load upto 2500 KVA are required to be supplied electricity at 11 KV. But in some cases electricity supply is given at 400 volts against base supply voltage of 11 KV. Similarly DS/NRS consumers catered supply at 400 volt against specific voltage of 11 KV. In all these cases LT surcharge @ 15% shall be leviable on the consumption charges including demand charges, if any or monthly minimum charges.

Q.3(a) Seasonal Industries mean industries/factories, which by virtue of nature of their production, work during part of the year upto a maximum of 9 months during the period of 1st September to 31st May next year.

However, seasonal period for rice shellers shall be during the period 1st October to 30th June, next year.

For exclusive seasonal industries, Monthly Minimum Charges as applicable in respective schedules of tariff shall be levied on full sanctioned load for the period these industries work during seasonal period of 9 months (from 1st September to 31st May next year). However, this working period shall be taken as minimum of $4^{1/2}$ months for the purpose of billing/levy of MMC on month to month basis. Industries which work for more than 9 and upto 12 months billing shall be done/monthly minimum charges levied on full sanctioned load as mentioned below for the seasonal period of 9 months and for the remaining 3 months (i.e. 1st June to 31st August) billing shall be done as per tariff applicable to general industrial consumers. Tariff rate/rate of monthly minimum charges shall be as given in schedule of tariff for large supply/medium supply/small power and as applicable depending upon the sanctioned. However, billing of rice shellers shall be done as under :

Billing for the rice sheller seasonal industry shall be done monthly. The seasonal Minimum Energy Charges (SMEC) will principally be based on energy consumption formula $(4800+nx)9$ wherein monthly energy consumption on 50 KW will be taken as 4800 units in accordance with LDHF formula (L-load: 50 KW, D-days: 24 days, H-hours: 10, F-demand factor: 0.4; where "n" represents numerical number rounded off to two decimal point and will be positive/negative. 0,1,2,3,4,5.....upto "n" for each 10 KW increase/decrease, respectively, with respect to base load of 50 KW. "x" has been taken as 400 units per 10 KW change in load over base load of 50 KW.

Once the amount equivalent to minimum energy charges for 9 months (seasonal period) is deposited by the consumer in the form of consumption, thereafter the bill shall be raised on actual consumption only. During off season period, if the consumption of consumer exceeds the base energy units worked out with energy consumption formula $(4800+nx)$, $1/3^{rd}$ extra monthly energy charges at seasonal tariff rate in addition to regular off season energy charges during that month shall be charged.

Q.3(b) The entitlement of a consumer to run a part of Connected Load/Contract Demand (converted into load in KW) called restricted load without payment of additional charges will be worked out as under :-

- MS consumers with connected load of 50 KW or above** : 10% of the connected load.
- LS consumers (other than Arc/Induction Furnaces)** : 10% of sanctioned Contract Demand or 50 KW, whichever is less.
- Induction furnace consumers** : 5% of sanctioned Contract Demand or 50 KW per furnace, whichever is less.
- Arc furnace consumers** : 5% of sanctioned Contract Demand.

ES

Model Solution
S-4/14 P-II

u

Q.4(a): Authorized officers to enter the consumer premises for checking/inspection, designated under section 135 of the Act by the Govt. of Punjab vide Notification no. 1/13/04-EB (PR)/23 dated 10.1.2005 :

Sr.No. Category of Connection

Authorised Officer

A Operation Officers

- | | | |
|-----|--|---|
| i) | All DS/NRS/AP, SP and Medium/ large/Bulk Supply upto 500 KW load | Any Officer of Distribution not below the rank of AE (within his jurisdiction) |
| ii) | Large and Bulk Supply beyond 500 KW and Railway traction supply | Any Officer of Distribution wing not below the rank of Sr.Xen (within his jurisdiction) |

B Enforcement Officers

- | | | |
|-----|---|--|
| i) | All categories of consumers with loads upto 500 KW | Any Officer of the Enforcement Wing not below the rank of AEE (within his jurisdiction) |
| ii) | All categories of consumers with loads above 500 KW | Any Officer of the Enforcement Wing not below the rank of Sr.Xen (within his jurisdiction) |

C MMTS Officers

Medium/Large Supply and Bulk Supply

Any Officer of the MMTS Wing not below the rank of Sr.Xen (within his jurisdiction)

- Q.4(b)
- | | |
|------|-------|
| i) | False |
| ii) | False |
| iii) | False |
| iv) | True |
| v) | False |

ES

model solution
5-4/14 P-II

(5)

Q.5(a) "Extra High Tension (EHT) consumer" means a consumer who is supplied electricity at a voltage exceeding 33000 volts.

"High Tension (HT) consumer" means a consumer who is supplied electricity at a voltage higher than 650 volts but not exceeding 33000 volts.

The Board will effect supply of High or Extra High Tension at voltages of 3.3 KV, 11 KV, 33 KV, 66 KV, 132 KV & 220 KV depending upon the power requirements of a consumer and the equipment/machinery intended to be installed.

a. LS consumers will be supplied electricity at following voltages in accordance with the Contract Demand and category of industry :-

b. Contract Demand	Supply Voltage
i) Upto 2500 KVA for Power Intensive (except Arc furnaces) and general industry.	11 KV
ii) Arc Furnaces upto 20 MVA and other consumers with Contract Demand exceeding 2500 KVA and upto 20 MVA	33/66KV
iii) Arc furnaces and other consumers with Contact Demand exceeding 20 MVA and upto 35 MVA	66/132 KV
iv) Arc furnaces and other consumers with Contract Demand exceeding 35 MVA	132/220 KV

b) DS/NRS/BS Loads :

Consumers under DS/NRS/BS categories will be supplied electricity at following voltages :

Contract Demand	
i) Upto 4000 KVA	11 KV
ii) Exceeding 4000 KVA and upto 20 MVA	33/66 KV
iii) Exceeding 20MVA and upto 35 MVA	66/132 KV
iv) Exceeding 35 MVA	132/220 KV

c. Railway Traction supply will be at 132/220 KV

Q.5(b) An applicant of Ds/NRS with connected load upto 100 KW and SP/MS categories may avail the sanctioned load in phases, within a period not exceeding six month. The billing of such a consumer, in the interim period, will be on the basis of load actually availed of. The Board will, through a notice inform the applicant to build up the sanctioned load or surrender the un-availed load before the expiry of six months from the date of release of the first phase. If the load is not built up as required, the sanctioned load the consumer will be reduced to the load actually availed of and billed under the relevant category.

In the case of LS, BS and DS/NRS consumers with load exceeding 100 KW, building up of the Contract Demand in phases will be allowed by the load sanctioning authority of the Board and the consumer billed accordingly.