

①

Model solution of ES/S-9/23/P-1

ES/S-9/2023/P-I

## Engineering Subordinates Departmental Accounts Examination

### Paper-I (Works accounts for Electrical Candidates)

#### ANS.NO.1

a) The papers to be submitted with the project for a work will consist of (i) a report, (ii) a specification and a detailed statement of measurements, quantities, and rates, and (iii) with an abstract showing the total estimated cost of each item. These documents together form what is called the 'estimate'.

In the case of a project consisting of several works, the report may be a single document for all the works and likewise the specification; but details of measurements and abstracts may conveniently be prepared for each work, supplemented by a general abstract bringing the whole together, in the case of estimates for "Repairs or "Maintenance", only the specification and the detailed statement of measurements and quantities with the abstracts will ordinarily be required.

The following points should be kept in mind while preparing a project estimate

1. The report should state in clear terms the object to be gained by the execution of the work estimated for, and explain any peculiarities which require elucidation, including, where necessary, the reason for the adoption of the estimated project or design in preference to others. The report should also discuss the effect the proposed works will have on any existing engineering works, such as Railways embankment, bridges syphons and culverts, and should clearly state whether the concurrence of the requisite Railway, Road or other authority has been obtained.
2. To facilitate the preparation of estimates, a schedule of rates of each kind of work commonly executed should be kept up in each Division, and the rates entered in the estimate should generally agree with the schedule rates, but where from any cause these are not considered sufficient, or in excess a detailed statement must be given in the report showing the manner in which the rate used in the estimate is arrived at.
3. Fractions of rupees will be omitted in showing the total cost of each kind of work in the abstract of the estimate and miscellaneous petty works may be entered without measurements, the estimated cost alone being given as lump sum.

(2)

Model sol. of Es / S-9/23 / P-I

4. Provision should be made in the estimate for all incidental expenditures that can be foreseen such as cost of land, hutment for workmen, sheds for workmen sheds for stores, hiring of godowns, dewatering and pumping arrangements, etc. while in addition provision of 3 percent on the estimated cost of works should be made to cover contingencies which cannot be foreseen.

10 Marks

b) The Total Estimated cost of deposit work is as under:

Particulars	Amount (in Rs.)
(i) Material Cost	
Cost of material	532850
Storage Charges @ 2%	10657
(ii) Carriage Charges	543507
(iii) Labour Charges	10000
Supervisor Charges @ 15%	120000
(iv) Fees for Clearance of HT Line	18000
	138000
	15162
(v) GST on works @10%	706669
(vi) Departmental Charges @27.5%	70667
	194334
<b>TOTAL COST</b>	<b>971670</b>

10 Marks





③

Model Sol. of ES/15-9/23/P-I

**ANS.NO.2**

**a) Average Consumption of Vehicles:**

In order to exercise proper control over the consumption of petrol, Mobile Oil grease & other expenses in running the vehicles a detailed daily account is maintained in the Lorry Maintenance Register for each crane, tractor-trailer-tempo, jeep, staff, cars, etc. Total KM run by the vehicles during the month is divided by total consumption of petrol/diesel. This gives the average consumption of vehicles.

**10 Marks**

**b)Sundry Charges and Allowances Register:**

Maintenance of Sundry Charges & Allowances Register: 2(b)

All types of adjustments relating to any recovery/refund of revenue shall be compulsorily routed through this register. Separate Register should be kept for each group by each ledger clerk or pages allotted for each group in one register. It should be ensured that items of one group of consumers under any category are not intermingled with the consumers of other group(s).

**(A) Sundry Charges and Allowances Register (Form SOP-6)**

This register will embrace the following type of transactions.

- (i) Over and under charges in the previous bills including prior period
- (ii) over/under charges. Bills raised on accounts of Theft of Power and Malpractices.
- (iii) Sundry services rendered by the Board vis. charges for duplicate bills, Bill challenge fees, Meter challenge fee, Resealing charges, Fuse replacement charges, Reconnection fee etc.
- (iv) Adjustment of annual minimum charges under Annual Minimum charges clause of Street Light Tariff.

9)

Model sol. of ES/5-9/23/P-I

**(B) Sundry Allowances Adjustment Register (SOP-6A)**

The following types of transactions the credit for which is to be given to the consumers through energy bill will be recorded in the register:

- (i) Adjustment of final energy bills against consumer's securities.
- (ii) (ii) Adjustment of interest on consumer's security deposits.
- (iii) (iii) Adjustment of interest on Debentures.
- (iv) (iv) Write off of Bad debts.
- (v) (v) Adjustment of amount received under ARPC schemes and interest thereon where payable.

As per SOP the following certificate in the Abstract Ledger of Billing Ledgers (SOP 15) "Certified that the totals of sundry charges in the Abstract Ledger tally with the totals of abstract of Sundry Charges (SOP 14). Totals of sundry allowances tally with the totals of allowances as per abstract of sundry allowances (SOP 14) and Sundry Allowances Adjustment Register (Form SOP 6 A). Sign the Certificate and put up to RA".

**10 Marks**



3

Model Sol. of ES / 15-9/23 / P-I

**ANS.NO.3**

**a) Schedule Contract:**

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.

**5 Marks**

**b) Technical Sanction and Administrative approval.**

The term **administrative approval** denotes the formal acceptance by the administrative authority concerned of the proposals for incurring any expenditure in the Board/Corporation or to undertake a work whereas the name **technical sanction** is given to the order of competent authority sanctioning a properly detailed estimate of the cost of a work of construction or repair proposed to be carried out in the Board/corporation.

**5 Marks**

**c) The Procedure of attendance of Work charges /Casual Employees**

The record of attendance and absences of work charged establishment/casual labour is maintained by the JE in the attendance sheet issued by DDO, which is issued after the requisition sent by the SDO for the blank attendance sheet for a particular month. The blank attendance sheet duly signed by the Divisional Accountant after allotting serial number is issued to the concerned Sub-Division. Concerned JE marks attendance and absences in the attendance sheet. If any cutting is made in the attendance sheet should be attested by the SDO. The Sub-Divisional JE prepares a progress report in case of work executed by the daily labour/ Work charge employee, which is authenticated by the SDO incharge. On the basis of work done measurements recorded in the Work Measurement Book (WMB). In the case of major works, the record of measurement is maintained in the IWR. The measurement is scrutinised by the JE and arithmetically accuracy of the measurement is checked by the Sub-Division Clerk and signed by him and SDO and sent to the Division for passing the labour bill.

**10 Marks**

⑥

Model sol. of E/S-9/23/P-I

#### ANS.NO.4

##### a) E-mail:

Electric Mail is a method of exchanging messages between people using electronic devices. A worldwide E-Mail network allows people to exchange e-mail messages very quickly. E-Mail is the electronic equivalent of a letter but with advantages in timeliness and flexibility. It can be used for many different purposes including contacting friends, communicating with professors and supervisors requesting information, and applying for jobs, internships, and scholarships depending upon your purpose the message you send will differ in formality, intended evidence, and devised outcome.

**10 Marks**

##### b) Central Processing Unit

A Central Processing Unit is also called a processor, central processor, or microprocessor. It carries out all the important functions of a computer. It receives instructions from both the hardware and active software and produces output accordingly. It stores all important programs like operating systems and application software. CPU also helps Input and output devices to communicate with each other. Owing to these features of CPU, it is often referred to as the brain of the computer.

**5 Marks**

##### c) Modem

A modem is a network device that both modulates and demodulates analog carrier signals (called sine waves) for encoding and decoding digital information for processing. Modems accomplish both of these tasks simultaneously and, for this reason, the term modem is a combination of "modulate" and "demodulate."

**5 Marks**





⑦

Model sol. of ES/ 5-9/23/ P-5

### ANS.NO.5

**a) IUT bill is not required for the use of the Corporation's vehicle by another office:**

No debits will be raised when a vehicle of an O&M Division is used by another O&M Division for O&M works. In such cases, a certificate shall be furnished by the Divn. using the vehicle, on the specified format. The certificate shall be allotted a serial number by the division owning the vehicle. In case, the certificate is not furnished within two months after the journey, the journey may be treated as a private one and debit raised for recovering the amount.

**5 Marks**

**b) IUT Bills and the procedure to settle inter-unit transactions.**

The IUT Bill is a bill prepared to raise the debit in respect of the transactions between one accounting unit and another and it is settled by II. Cheque.

The IUT Bill is prepared by the accounts section at Divisional office within 10th of next month. The IUT Bill will specify the date, serial number, name and location code of the transfer All / Division, name and location code of the transferee All Division, account code as per the Chart of accounts related to the type of Inter unit transaction i.e. fuel, material etc. Particulars of transactions including details and number of supporting documents and amount.

In Construction and Hydel organizations, the IUT Bills is prepared by the store sub divisions and the bill along with a receipted copy of store challan /store requisition is forwarded to its division (Accounts Section) duly signed by SDO store sub division. The division sends the IUT Bill to the receiving division / Accounting unit along with a copy of receipted store challan /store requisition duly signed by the divisional officer without waiting for monthly stock account The project stores 0 the receipted store challans to the AO evaluation cell of the project. AO evaluation after evaluating the above challan will raise IUT bill on the receiving division accounting unit without waiting for the monthly stock account

In case of transfer of cash from one division to another IUT Bill be raised on the spot and cash transferred only against U-cheque.

**5 Marks**



**c) Instructions regarding custody of keys of cash chest:**

- (i) The cash chest shall have at double locking system with two sets of keys for operating locks. The keys shall be marked 1 & 2. The key no. 1 shall be in the custody of RA/SDO/AO/Sr. Xen and key no. 2 shall be in the custody of official handling cash.
- (ii) The duplicate keys shall be deposited with the bank in a small box duly sealed by officer in charge. The facts should be entered in the duplicate key register. (iii) At the beginning of every year duplicate keys from the bank should be withdrawn and operate the duplicate keys in the presence of 2nd key holder and redeposit the keys in the bank as mentioned above.
- (iv) The cash chest shall never be opened unless both custodians of keys are present till the time it is locked again.
- v) Intimate the controlling officer immediately in case of loss of keys of cash chest. In case, both keys are lost. FIR with Police should be lodged. vi) Withdraw duplicate keys from the bank and arrange to get the lock changed from the company from whom the cash chest was purchased and deposit the new duplicate keys after lock is changed.
- vii) In case the key holder is to go on tour / leave the key of cash chest should be handed over to the next official in line under him. In such an eventuality, the cash book should be balanced, cash in chest counted and recorded in the particular column of the cash book under the signature of both officials handling over or taking over charge.
- viii) In no circumstances should both keys of cash chest be in the custody of one official.



⑨ Model sol. of ES/s-9/23/P-I

ix) In case the cash chest key holder is unable to attend office due to illness / accident etc. the key of cash chest should be obtained from him under the written orders of the competent authority.

x) The lock, the key of which has been lost should not in any case be used again on the chest, nor a fresh key thereof should be got manufactured locally. These instructions apply also in case of chest having interlocking arrangement.

**10 Marks**

Model Solution for Paper-2<sup>nd</sup>(Consumer Accounting Banking Instructions & Sales)

Model Solution to Question-1<sup>st</sup>:-

- (a):- Assessing Officers designated under section 126 of the Act by the Govt. of Punjab vide Notification No. 1/60/03-EB (PR)/1186 dated 27.12.04

Category of Consumers	Assessing Officers
All HT Consumers above 1 MW load	CEs/Distribution of respective Zone
All HT consumers up to 1 MW load	SE/Dy.CEs/Distribution of the respective circle.
All LT Industrial Consumers	Sr. Executive Engineers/ Addl. SEs/Distribution of the respective division.
All other LT consumers	Assistant Engineer/ Assistant Executive Engineers/ Executive Engineers of respective Distribution sub-division.

- (b) Current Tariff rates for DS category :-

Description		Energy Charges (In Rs.)	Fixed Charges(In Rs./Month)
Load upto 2KW	Upto 100kwh	Rs.4.19/kwh	Rs.50/KW
	101-300kwh	Rs.6.64/kwh	
	Above 300kwh	Rs.7.75/kwh	
Load exceeding 2kw & upto 7kw	Upto 100kwh	Rs.4.44/kwh	Rs.75/kw
	101-300kwh	Rs.6.64/kwh	
	Above 300kwh	Rs.7.75/kwh	
Load exceeding 7kw & upto 30kw	Upto 100kwh	Rs.5.34/kwh	Rs.110/kw
	101-300kwh	Rs.7.15/kwh	
	Above 300kwh	Rs.7.75/kwh	
Load/Demand exceeding 50kw/kva & upto 100kva (All units)		Rs.6.75/kvah	Rs.130/kva
Demand above 100kva (All units)		Rs.6.96/kvah	Rs.140/kva
Sri Harmandir Sahib & Sri Durgyana Mandir Amritsar	First 2000kwh	Free	NA
	Beyond 2000kwh	Rs.6.41/kwh	

Current Tariff rates for NRS category :-

Description		Energy Charges (In Rs.)	Fixed Charges(In Rs./Month)
Load upto 7KW	Upto 100kwh	Rs.6.91/kwh	Rs.70/KW
	101-500kwh	Rs.7.17/kwh	
	Above 500kwh	Rs.7.75/kwh	
Load exceeding 7kw & upto 20kw	Upto 100kwh	Rs.6.91/kwh	Rs.110/kw
	101-500kwh	Rs.7.17/kwh	
	Above 500kwh	Rs.7.75/kwh	
Load/Demand exceeding 20kw/kva & upto 100kva (All units)		Rs.6.75/kvah	Rs.130/kva
Demand above 100kva (All units)		Rs.6.96/kvah	Rs.140/kva
EV Charging Station		Rs.6.28/kvah	NA



7

(C) As per Annexure-8 of the supply Code in cases of UAE, if the consumption of electricity cannot be computed on the basis of meter readings, then the same will be computed on the basis of the LDHF formula.

In cases of established theft of electricity cases, the consumption is computed on basis of LDHF formula.

In LDHF formula , Units assessed =  $L * D * H * F$ ,

Where, L is Load connected, D is number of working days per month, H is use of supply hours per day and F is for demand factor.

3

Model Solution to Question-2nd:-

(a) Billing of Seasonal Industries:-

Billing for seasonal industries shall, be done on a monthly basis and charged as under:

**For exclusive Seasonal industries**, billing shall be as per the tariff (comprising of fixed and energy charges) applicable in the respective schedule of tariff for seasonal industry. However, the Fixed Charges, as applicable in the respective schedule of tariff for seasonal period, shall be levied only for the period of six months from the beginning of the seasonal period. Thereafter, only energy charges, as applicable in the respective schedule of tariff, shall be levied on actual consumption recorded during the month. However, demand surcharge shall be leviable for the excess demand, if any, as per the relevant schedule of tariff.

**For mixed Industries**, comprising of seasonal Industry and general industry, billing shall be done monthly as under:

- Energy Charges shall be levied on actual consumption recorded during the month, as applicable in the respective Schedule of Tariff for General Industry, throughout the year.
- Fixed Charges, shall be levied on sanctioned contract demand for general load, as applicable in respective Schedule of Tariff for General Industry throughout the year and on sanctioned contract demand for seasonal load for six months at seasonal rates, as applicable in the respective Schedule of Tariff, from the beginning of seasonal period, irrespective of the actual period of running of seasonal load

(b)

Category	Tariff
Govt. sports institutions.	DS
Sainik Rest Houses.	DS
Dairy farm with load 20KVA	SP
Electric vehicle charging station	NRS

- As per Cash & Bank Manual chapter-11 an entry once made in the Cash Book should in no circumstances be erased. If a mistake/error has been made and accounts of the month have been closed, no correction of error in amount, classification or name of work should be made in Cash Book but a journal entry should be prepared for the necessary corrections and a suitable remark in red ink (quoting reference to the correction in accounts) being recorded against the original erroneous entry in cash book.



**Model Solution to Question-3rd:-****(a) Refund of security Works on Withdrawal of Application for Temporary Connection.**

In case of withdrawal of application for temporary connection after compliance of demand notice, the following procedure shall be adopted for refund of Security (works):-

- a) If the application is withdrawn before the due date by which supply of electricity is required or time frame fixed as per Regulation 8.3.3, of Supply Code-2014 whichever is later and no work has been undertaken by the PSPCL, the entire Security (works) shall be refunded.
- b) If the application is withdrawn before the due date by which supply of electricity is required or the time frame fixed as per Regulation 8.3.3, of Supply Code-2014 whichever is later and works have been taken up, the expenditure incurred by the PSPCL on the erection/dismantlement of works shall be deducted from the Security (works) and the balance amount shall be refunded.
- c) If PSPCL fails to release the connection by the due date or time frame fixed as per Regulation 8.3.3, of Supply Code-2014 whichever is later and the application is withdrawn thereafter, Security (works) shall be refunded in full.

The refund of Service Connection Charges/Security (works) shall be effected within thirty (30) days of receipt of request from the applicant. In case PSCPL fails to refund Service Connection Charges/Security (works), as the case may be, within the stipulated period, PSPCL shall for the period of default starting from the 31<sup>st</sup> day of the date of withdrawal of application till the date Service Connection Charges/Security (works) is refunded, be liable to pay interest at the SBI's Base Rate prevalent on first of April of the relevant year plus 2 %.

**(b) Money Receipt Books:-**

As per chapter-19 of Cash & Bank manual at the beginning of the year banking section of corporation will receive the printed money Receipt Books (BA-16) from the printer. It will be ensured that books are pre-numbered and in serial order. Entry will be made in the stock register of Receipts Books. Number of forms contained in each book will be counted and a certificate of count will be given on flyleaf. Banking section will issue receipts books to divisional office and will update the register of receipts books. Divisional supdt. will also count the number of forms contained in each book and a certificate of count will be given on flyleaf and will keep the receipts books under Lock & key. After approval of ASE/Sr.Xen receipts books will be issued to sub divisions and will update the register of receipts books. When a receipt book is brought in to use for the first time, an entry will be made in register as a new item and entry for completed book will also be made in the register.

**(C) 16.1 Defective MDI:**

In case the MDI of a consumer becomes defective, the maximum demand is computed by taking Higher of the average of maximum demands recorded during the preceding three months before the MDI became defective or the maximum demand of the corresponding month of the previous year provided there was no change of Load/demand thereafter, shall be adopted for billing purposes for the period the MDI remained defective. If there was change of Load/demand immediately before the MDI became defective, the maximum demand computed as above shall be adjusted on pro-rata basis. In case of new connections where the previous reading record is not available the maximum demand shall be taken as 80% of sanctioned contract demand for billing purposes during the period MDI became defective.



**Model Solution to Question-4th:-****(a) 36. UNAUTHORIZED USE OF ELECTRICITY**

Under Section 126 of the Act, in the unauthorized use of electricity following cases are covered where electricity is used:-

- (a) by any artificial means; or
- (b) by a means not authorized by the concerned person or authority or licensee; or
- (c) through a tampered meter; or
- (d) for the purpose other than for which the usage of electricity was authorized; or
- (e) for the premises or areas other than those for which the supply of electricity was authorized.

**37. THEFT OF ELECTRICITY:-** Under Section 135 of the Act, in the theft of electricity following cases are covered:-

A consumer or any person shall be guilty of theft of electricity within the meaning of section 135 of the Act, whoever, dishonestly:-

- (a) taps, makes or causes to be made any connection with overhead, underground or under water lines or cables, or service wires, or service facilities of a licensee or supplier, as the case may be; or
  - (b) tampers a meter, installs or uses a tampered meter, current reversing transformer, loop connection or any other device or method which interferes with accurate or proper registration, calibration or metering of electric current or otherwise results in a manner whereby electricity is stolen or wasted; or
  - (c) damages or destroys an electric meter, apparatus, equipment or wire or causes or allows any of them to be so damaged or destroyed as to interfere with the proper or accurate metering of electricity or as to interfere with the proper or accurate metering of electricity; or
  - (d) uses electricity through a tampered meter; or
  - (e) uses electricity for the purpose other than for which the usage of electricity was authorized;
- so as to abstract or consume or use electricity shall be punishable with imprisonment for a term which may extend to three years or with fine or with both.

- (b) Consumer Security deposit ledger (SOP-25):-** ACD/Security amount received from all categories of consumers/applicants is entered in Consumer Security deposit ledger (SOP-25). In this ledger details of applicant like Name of consumer, Account number, Category, Month/date, A&A form number, Load details, Cash book folio number, cash receipt number, detail/reference of SC&A register, Full detail of transaction are given. Debit, Credit and Balance figures are also entered/shown in this register. All entries pertaining to a particular consumer shall be made on a particular page allotted to him till change of category. In that eventuality consumer shall be transferred to ledger part of relevant category and cross reference in both the places is given.

**(C) Direct supply to various categories of consumers other than DS consumers:-**

As per ESIM instruction 57.5 (CC no. 04/2021) direct supply in case of various categories other than DS category such as LS, MS, SP, NRS, BS etc. should be avoided. In case of extreme/dire emergency direct supply can be allowed, recording reasons thereof, with written approval of Load sanctioning authority for time period not exceeding 48 hours. In case direct supply to be allowed for period more than 48 hours, written approval of authority one step higher than the load sanctioning authority will be required. In case of LTCT/HT meters verbal concurrence of enforcement wing shall be taken also. Regular/proper monitoring shall be made by enforcement wing for replacement of burnt/damaged metering equipment in minimum possible time. The concerned DS sub division office shall intimate the period of direct supply in such cases to the concerned Centralized Billing Authority with copy to Dy.CE/Billing to ensure correct billing for the period of direct supply.



6

Model Solution to Question-5th:-

(a)

Date of reading	Previous	12-june-2023
	Current	14-August-2023
	Number of Days	63 days
Meter Reading	Previous	92238
	Current	94974
	Total Consumption	2736units
Electricity Concession being PSPCL employee getting Maximum Concession		$155 \times 2 = 310$ units
Electricity Concession for 63 days billing		$\frac{310 \times 63}{60} = 326$ units
Consumption on which bill to be prepared		$2736 - 326 = 2410$ units

(b) **Meter Blank** is duly printed by the computer is to be supplied to the sub division for recording meter readings therein. Name & address, listing with sub division code, Account number (with check digits), meter number, type of tariff and line number are printed. Space is provided to record meter readings status of Meter and Date of reading which has to be filled by the meter reader for preparation of non sap consumer's bills.

(c) **Supplementary Bills and their installments:-**

**PAYMENT OF ARREARS NOT ORIGINALLY BILLED:**

As per ESIM clause 93 there may be certain cases where the consumer is billed for some of the dues relating to previous months/years or otherwise as arrears on account of under assessment or demand / load surcharge pointed out by Internal Auditor/ detected by the authorized officers either owing to negligence of the PSPCL employees or due to some defect in the metering equipment or due to application of wrong tariff/ multiplication factor or due to mistake in connection or other irregularities etc. In all such cases, separate bills shall be issued giving complete details of the charges levied. Such charges shall be shown as arrears in the subsequent electricity bills regularly till the payment is made. **Supplementary bills** shall be issued separately giving complete details of the charges in regard to slowness of meter, wrong connections of the meter and application of wrong tariff/multiplication factor etc. In such cases the copy of relevant instructions under which the charges have been levied shall also be supplied to the consumer for facilitating the quick disposal of cases by consumer forums, if approached by the consumer.

**Allowing Installments for Supplementary Assessment:** The consumer may sometimes find it difficult to make payment of such arrears in lump sum and may make representation for allowing the payment of such arrears in interest free installments. Such a representation must come from the consumer within the grace period of the bill. A notice to this effect shall be incorporated on the bill itself. The consumer seeking installments shall deposit not less than 25% of the billed amount so as to show his earnestness to pay the assessed amount in installments.

**Competency of installments:** On receipt of the representation, the Sr.XEN/ASE (DS) may allow the consumer to make payment of the arrears in monthly installments up to 10. Normally, not more than 5 installments be allowed. The 1st installments shall start from 15<sup>th</sup> day from the date of receipt of the bill and other installments shall be payable every month regularly failing which the premises of the consumer shall be liable for disconnection. SE/Dy.CE(DS) may however, increase the number of installments up to 15 in extreme hardship cases.



①

Model solution of ES/Civil/S-9/23/P-I

ES/Civil/P-I

Answer to question No. 1

a) Following steps shall be taken to control over the R&M expenses of vehicles :-

- 1) The officer in charge should maintain a detailed daily account of consumption of Petrol, Mobile Oil, Grease etc. and other expenses in running of vehicles in lorry log book and the lorry Mtc. Register.
- 2) JE/Officer Incharge on monthly basis shall prepare an abstract showing recoveries made from individual, the amount debitible to various works/Estimates, total Km. run, petrol consumed etc. and submit to SDO/Officer Incharge.
- 3) SDO/Officer Incharge shall scrutinize the consumption per Km as per approved norms and sign the abstract for further submission to Divn./Controlling Officer.
- 4) Supdt. Acts. Of Divn. Office will scrutinize the abstracts/log book and Mtc. register and will prepare Journal entries and incorporate this in monthly account after getting these approved Divisional Officer.
- 5) JE/Vehicle Incharge will prepare half yearly summary of vehicle Mtc. expenditure for each vehicle and compare it with sanctioned estimate and determine variance if any and will enter the reasons for variance.
- 6) JE/Vehicle Incharge put up the summary along with lorry log book and lorry mtc. Register for scrutiny to SDO/Officer Incharge.
- 7) SDO/Officer Incharge will forward it to Divnl. Office after scrutiny and approval.
- 8) Supdt. Accounts receive the summary report and scrutinise it with lorry log book/ Mtc. Register will put up to the Divnl. Officer/Officer Incharge
- 9) Divnl. Officer/officer Incharge will review the summary report and will pass orders on variances if any. Issue orders for revisions of rate on estimate in consultation with SE/Controlling Officer.
- 10) Supdt. Account will initiate action on the orders passed by the Divnl. Officer regarding variances in the summary reports and will file the summary in relevant estimate file.
- 11) Divnl. HDM will initiate action for revision of rate/Estimate as per orders of Divnl. Officer.
- 12) Officer Incharge shall ensure the proper working of Millimeter provided with each vehicle and proper recordings of readings in log book.
- 13) Office Supdt./Divnl. Supdt./SDC shall maintain log book of vehicles and machinery upto a period of five years after the vehicle or machine has ceased to work and has been condemned.
- 14) The report regarding loss of log book shall be made by Divnl. Officer/SE to the Chief Engineer concerned who will forward the report along with explanation of concerned officials to the competent authority for further action.



2

## Model solution of ES/civil/s-9/23/P-I

- b) The amount receivable from the PSPCL employees and outside parties for use of vehicle for non official purposes/private journey shall not be taken in reduction of expenditure on R&M of the vehicles. Such receipts from the PSPCL employees creditable to the revenue receipt head 62.630 and receipt from the outside parties will be credit to the Revenue receipt head 62.910
- c) **Material Estimate Control Register** It is maintained for each sanctioned estimate/work in case of minor works where Initial work Register (IWR) is not maintained. This register shows at any point of time the cumulative quantity and value of material received in respect of major material items and cumulative value of petty material items vis a vis sanctioned requirements. This Register also indicates consumption and balance of material in Hand both with regard to the quantity and value on last day of each month/financial year or on completion of work. This register shall be maintained by the Sectional Officer/JE and other authorized officials for all the minor works under Capital and Revenue accounts. This register shall be checked monthly by the SDC and signed by AE/AEE and during annual inspection it shall also be checked by Supdt. Accounts and Divnl. Officer.

③

## Model solution of ES/Civil/S-9/23/P-I

Answer to Quest. 2

- a) Imprest :- An imprest is the standing advance of a fixed sum of money given to an individual to enable him to make certain classes of disbursement which may be entrusted to his charge by the Divisional Officer/Sub Divisional Officer and should invariably be discontinued when the necessity of them has passed away. Before granting an imprest, it must be ensured that the official concerned has deposited the necessary security deposit with PSPCL.
- Following rules should be followed while issuing the imprest :-
- 1) Imprest should only be given when absolutely necessary and amount should be kept as low as possible to minimize the risk of loss of the PSPCL money.
  - 2) Imprest should only be given with the express sanction of the Executive Engineer and then only to employees of whose character the Sub Divisional Officer has had opportunity of favorable opinion.
  - 3) In the case of loss or defalcation the Executive Engineer will be held responsible that all requisite precautions has been taken. .
- b) Under following circumstances the employer is liable to pay the compensation under the Workman Compensation Act :-
- 1) IF personal injury is caused to employee by accident arising out of and in the course of employment.
  - 2) If an employee employed in any employment contracts occupational disease peculiar to that employment.
  - 3) Temporary Disablement while working
  - 4) Permanent Disablement (Complete or partial)
  - 5) Death due to an accident at work.



Answer to Quest. 3

- a) Technical Sanction is the order of the competent authority sanctioning a properly detailed estimate of the cost of a work of construction or repair proposed to be carried out in the PSPCL.

Administrative approval is the formal acceptance by the administrative authority concerned of the proposals for incurring any expenditure in the PSPCL to undertake a work.

- b) SVR :- Stock verification report is the report prepared during the physical verification of store items/stock.

Following entries are made in the books of accounts during material found short/excess :-

	1)	Material found excess :-
Credit	:-	22.810 Stock Excess Pending investigation
Debit	:-	22.5 Material Stocks Adjustment : Accounts Capital/O&M.
2)	Material found short :-	
Credit	:-	22.5 Material Stocks Adjustment : Accounts Capital/O&M.
Debit	:-	22.810 Stock Shortage Pending investigation.

- c) It is fundamental rule that no work shall be commenced unless a properly detailed design and estimate have been sanctioned, allotment of funds made and order for its commencement has been issued by the competent authority.

⑤

## Model solution of ES/Civil/8-9/23/P-5

Answer to Quest. 4

a) The General Principle that should be followed by PSPCL Officers/employees while sanctioning or incurring expenditure from the revenue of PSPCL are as follows:-

- 1) Every officer/official is expected to exercise the same vigilance in respect of expenditure incurred from PSPCL money as would exercise in respect of the expenditure from his own money.
- 2) The expenditure should not be more than the occasion demands.
- 3) Money borrowed on the security of allocated revenues should be expended on those objects only for which money is borrowed.
- 4) No authority should exercise his powers of sanctioning expenditure to pass an order directly/indirectly advantageous to him.
- 5) PSPCL revenue should not be utilized for the benefits of a particular person or the section.
- 6) No authority should sanction any expenditure which is likely to involve at a later date expenditure beyond its own power of sanctions.
- 7) The amount of allowances such as TA etc. should be so regulated that the allowances are not on the whole the sources of profit to the recipients.

b)

1) Edge computing :- Edge computing is the process of bringing information storage and computing abilities closer to the devices that produce that information and the users who consume it.

2) JSON :- JSON is an open standard format for creating and storing files or exchanging data that uses comprehensible and human-readable text made up of attributes and serializable values.

3) Embedded Database :- An embedded database system is a database management system (DBMS) which is tightly integrated with an application software; it is embedded in the application. It is a broad technology category that includes: database systems with differing application programming interfaces.



6

4) Distributed Database

A distributed database is a database in which data is stored across different physical locations. It may be stored in multiple computers located in the same physical location; or maybe dispersed over a network of interconnected computers.

5) HTTPS :-Hypertext Transfer Protocol Secure

HTTP :-Hypertext Transfer Protocol

Answer to Quest No. 5

- a) For following types of payments there is no need to record entries in the measurement book :-
- 1) Payments of wages to the workcharged staff.
  - 2) Petty payments upto Rs. 10
  - 3) Payments which are unsuceptible of measurement such as Octroi duty, Municipal Taxes, Electrical Charges, Railway Freight, Bedsheets, Towels, Curtains of rest house etc.
  - 4) Payment against Lumpsum contract.
- b) The following members of the non gazaetted establishment in the PSPCL are authorized to make entries in the measurement books :-
- 1) Junior Engineers/Sectional Officers
  - 2) Substation Operators
  - 3) Permanent Way Inspectors.
  - 4) Meter Inspectors.
  - 5) Head Mistries
  - 6) Foreman
  - 7) Power House Superintendents
  - 8) Any other person authorized by the Board.
- c) **Supplementary Estimate :-** A supplementary estimate is prepared if execution of work becomes necessary when the project is still in progress but was not included in the original estimate of project.
- Revised Estimate :-**
- 1) Revised Estimate shall be prepared when the sanctioned estimate is likely to be exceeded by more than five percent due to increase in the rates or any other cause except when supplementary estimate will be required.
  - 2) Revised Estimate will also become necessary if at any time either before or during the construction of the work, it is found that the original estimate is excessive for reasons other than abundmant of sanction of a sanctioned project or change from the original proposals.
  - 3) When excesses are noticed at an advance stage of construction of a work, the excesses if any, beyond the power of divisional officer to pass, may be explained in the completion report because submission of revised estimate at this stage will be purposeless.