

H. P. Board of Departmental Examinations
Departmental Examination of Engineering Officers of HPSEB Ltd.
of Himachal Pradesh Session April, 2015

PAPER-I (WORKS, STORE & COMMERCIAL ACCOUNTS/ MANUALS)

Time Allowed: 3 (Three ~~5:30~~ Hours)

Maximum Marks: 300

Note:-

- i) Attempt any five questions. Three from Part-I and Two each from Part-II or Part-III as applicable.
- ii) Part-I is Compulsory for all Engineering Officers.
- iii) Part-II is meant for Electrical Engineers.
- iv) Part-III is meant for Civil/ Mechanical Engineers.
- v) Bare Acts/ Codes/ Rules/ Manuals/ Tariff Orders only are allowed.

PART-I (Works Accounts & Stores Manual)

- Q. I) a) Who is responsible for keeping vigil over liabilities for their settlement. In cases Liabilities are incorporated in accounts of works. [20]
- b) What is the procedure of Cash Transactions and maintenance their record? Explain in detail. [20]
- c) What is the procedure for receipt of material required for stock and works and how its accounts are maintained? Describe in detail. [20]
- Q. II) a) What are the various Commercial Terms and Conditions incorporated in a Supply Order/ Contract Agreement? Explain in detail. [20]
- b) Describe the various modes of Purchase. How the Tenders are processed, explain in detail. [20]
- c) What is the procedure of Arbitration and Legal Proceedings in handling the Contracts in HPSEB Ltd.? [20]
- Q. III) a) What is the procedure for acquisition and maintenance of stores? [20]
- b) Explain the procedure of destruction of office record in HPSEBL? [20]
- c) Who is responsible for making entries in the main cash book and how they are maintained? [20]

- Q. IV) a) Explain how the Accounts of Deposits and Suspense Accounts are regulated. [20]
- b) What is Administrative Approval and Technical Sanction. Explain in detail the procedure to obtain Administrative Approval and Technical Sanction? [20]
- c) What are Precautions taken against losses of stores? [20]
- Q. V) a) What are the different groups in Finance & Accounts wing in HPSEB Ltd. Explain the functions of Chief Accounts Officer. [20]
- b) Explain the procedure to release the payments to Suppliers and Contractors by field units. [20]
- c) Explain the working of Compilation and Banking & Cash Sections in HPSEB Ltd. [20]

PART-II FOR ENGINEERING OFFICERS (ELECTRICAL)

- Q. I) a) What is the time limit for a prospective consumer to avail the connection after HPSEBL's readiness to supply of power? Explain in detail. [20]
- b) Define the different consumer categories in HPSEB Ltd. and how will you prioritise the applications for grant of electric supply? [20]
- c) Explain the procedure followed when a meter is reported to be damaged or burnt? [20]
- Q. II) a) What are the Operations, duties and functions of Flying Squad Units? Describe in detail. [20]
- b) What are the various remedial methods^{which} are taken for prevention of theft? How the supply to the consumer, who caught stealing energy is reconnected? [20]
- c) How the assessment and charging of energy pilferage is done from the consumers found stealing of Energy? [20]
- Q. III) a) What is procedure adopted in case consumer insists for correction of bill before making payment? [20]
- b) How the consumer is billed where the meter is found inaccurate? [20]
- c) What are the reasons for disconnection of supply to the consumer premises on temporary and permanent basis and how the supply is restored? [20]

- Q. IV) a) How the Industrial unit shall be billed having a connected load of 2500kW given with a standard supply voltage as per Supply Code and consumed 12345 kWh in a month and having sanctioned Contract Demand of 2100kVA. Pl. Prepare a sample bill. Consider Power factor as 0.90 and consider current tariff order dated June 12, 2014 issued by Himachal Pradesh Electricity Regulatory Commission. [20]
- b) What is the procedure of taking the securities from the Consumers and how the maintenance of their accounts is done? [20]
- c) Define the terms DIVERSITY FACTOR, DISTURBING LOAD PENALTY, SERVICE LINE, POWER FACTOR SURCHARGE, LOWER VOLTAGE SUPPLY SURCHARGE, TWO PART TARIFF, CONTRACT DEMAND VIOLATION CHARGES, AT&C LOSSES, WHEELING and COGENERATION. [20]

PART-III FOR ENGINEERING OFFICERS (CIVIL/ MECHANICAL)

- Q. I) a) How the estimation of Rock Loads and Pressures is done before excavation of tunnels? Please explain. [20]
- b) Classify various type of Tunnels. What are the main points considered for the alignment of Tunnels. [20]
- c) Describe the sequence of Operation for Construction of Tunnels. Explain in brief the terms Rock- Bolting and Shotcreting. [20]
- Q. II) a) Explain in detail the design of lined canals? [20]
- b) What are the main considerations^{which} are taken into account in maintenance of lined canals? [20]
- c) What are broad principles required to be considered in the channel Alignment? Explain. [20]
- Q. III) a) What are the advantages & disadvantages of having barrage/ weir in Mountainous & Sub-mountainous Regions? Explain in brief the points to be considered while selecting a barrage vis-a-vis weir. [20]
- b) What are the main factors considered in Planning and Layout of Barrages? [20]

- c) What are the various instruments are required to be installed in the Diversion Structures like Barrage or Weir? Explain in brief. [20]
- Q. IV) a) Why the Surge Shaft is required in a Hydro Electric Plant. Explain in detail. [20]
- b) Explain in detail the Hydraulic Losses in the Penstock. [20]
- c) What is the utility of models tests in judging the performance of turbines? Please explain. [20]