

H. P. Board of Departmental Examinations
Departmental Examination of Engineering Officers of HPSEB Ltd.
of Himachal Pradesh Session April, 2016

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

Time Allowed: 3 (Three) 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) Explain in brief the Accounting Procedure for the material received for the specific work. How the prices of Stores are fixed by the Divisional Officers maintaining stores in the HPSEB Ltd? [20]
- b) What procedure is required to be adopted before taking up any work? Explain in detail. [20]
- c) Discuss in detail the procedure to be followed to deal the cases relating to the disposal of unserviceable, obsolete and surplus stores? [20]
- Q. II) a) What are the benefits/ concessions given to the registered firms with HPSEB Ltd.? How the firms are Suspended, Black Listed and Banned from the supply of Material? [20]
- b) Explain the testing & inspection procedure and Despatch of Material after issue of Purchase Order. [20]
- c) What is the procedure of Arbitration and Legal Proceedings in handling the Contracts in HPSEB Ltd.? [20]
- Q. III) a) Specify under which Account Code and Head, the Revenue from Sale of Power is accounted in HPSEB Ltd. Describe the various items with sub heads and account codes covered under Revenue from Sale of Power. [20]
- b) How the appropriations in the budget estimates are done? Who is responsible for watching the progress of expenditure? Explain. [20]

- c) Define the terms Book Transfer, Budget Estimates, Technical Sanction, Accounts of Deposits and Suspense Accounts [20]
- Q. IV) a) What is the procedure of earmarking, sanctioning, payments etc. of advances to the employees for purchase of Plots/ Construction of Houses/ Flats? [20]
- b) What is the procedure of closing of works accounts on the completion of work and how the errors, if any, are required to be rectified? [20]
- c) How the accounts are examined in HPSEBL? Explain in detail. [20]
- Q. V) a) What is the procedure followed for the custody of cash in a Sub- division/ Division? How the Cash Books are maintained by the Sub Divisional Officers. [20]
- b) What is the procedure of physical verification of stores and who is competent for physical verification of each type of store? [20]
- c) Who is responsible for making the entries in the main cash book and how they are maintained. [20]

PART-II FOR ENGINEERING OFFICERS (ELECTRICAL)

- Q. I) a) Explain the procedure for dealing the cases where the full sanctioned load/ demand is not availed by the consumer? [20]
- b) Define the different consumer categories in HPSEB Ltd. and how will you prioritise the applications for grant of electric supply? [20]
- c) What do you understand by the Centralised Billing System in HPSEB Ltd.. How the recovery of arrears is done from the defaulting consumers? [20]
- Q. II) a) What are the Operations, duties and functions of Flying Squad Units? Describe in detail. [20]
- b) What are the general principles to regulate the enforcement of responsibility for losses sustained by HPSEBL through fraud or negligence of individuals? [20]
- c) How the assessment and charging of energy pilferage is done from the consumers found stealing of Energy? [20]
- Q. III) a) What do you understand by the terms Unauthorised Use of Electricity and Theft of Electricity. How the Sections 126 and 135 are invoked in these cases? [20]

- b) How the consumer is billed where the meter is found inaccurate? [20]
- c) What are the steps involved to release the connection to a consumer at 33 kV? [20]
- Q. IV) a) Explain in detail the conditions to be incorporated while conveying the load sanction. [20]
- b) How the billing is carried out for the Industrial consumer having connected load more than 1 MW? [20]
- c) Define the terms Diversity Factor, Open Access, Additional Surcharge, Power Factor Surcharge, Lower Voltage Supply Surcharge, Two Part Tariff, Contract Demand Violation Charges, AT&C Losses, Cross Subsidy Surcharge. [20]

PART-III FOR ENGINEERING OFFICERS (CIVIL/ MECHANICAL)

- Q. I) a) Explain in brief the basic and common civil components of a high head development of Mini Hydro Scheme. [20]
- b) What do you understand by the setting height of unit? Explain the circumstances when setting height of the unit is +ve and -ve? [20]
- c) What is the utility of models tests in judging the performance of turbines? Please explain? [20]
- Q. II) a) Explain in brief the various aspects considered for proper Maintenance and operation of Diversion Structures? [20]
- b) What are the main considerations taken into account in maintenance of lined canals? [20]
- c) Explain in detail the design of unlined canals. [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) Explain in brief 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 do you understand by surges and air locking in hydraulic Tunnels?
Explain in detail. [20]