

**H.P. BOARD OF DEPARTMENTAL EXAMINATIONS
DEPARTMENTAL EXAMINATION OF ENGINEERING OFFICERS OF HPSEB LTD.
OF HIMACHAL PRADESH SESSION OCTOBER, 2012.**

Paper-I (WORKS, STORE & COMMERCIAL ACCOUNTS- MANUALS FOR ENGINEER OF HBSEBL)

ATTEMPT ANY FIVE QUESTIONS. THREE FROM PART-I AND TWO FROM PART- II OR PART-III

**NOTE: PART -I IS COMPULSORY FOR ALL ENGINEERING OFFICERS.
PART -II IS MEANT FOR CIVIL/MECHANICAL ENGINEERING OFFICERS.
PART -III IS MEANT FOR ELECTRICAL ENGINEERING OFFICERS.**

TIME: 3 HOURS

MAX. MARKS: 300

PART -I WORKS, ACCOUNTS & STORES/MANUAL

- Q.1)**
- a) Define the following:
 - i. Issue Rate.
 - ii. Contract and Contractor.
 - iii. Contingency.
 - iv. Direct and Indirect Charges. (20)
 - b) What is the procedure for destruction of office record in HPSEBL? (20)
 - c) What are the general principles to regulate the enforcement of responsibility for losses sustained by the Board through fraud or negligence of individuals? (20)
- Q.2)**
- a) How HPSEBL is enlisting firms other than specific category and what concessions are given to the Suppliers enlisted? (20)
 - b) What procedure is adopted with regard to inspection of material before dispatch? (20)
 - c) Who are responsible for making entries in the main cash book and how they are maintained? (20)
- Q.3)**
- a) How the transfer of charge is being done by the Divisional and Sub-Divisional Officers. (20)
 - b) What points are to be kept in mind while preparing the contract document and who is responsible to execute such contracts? (20)
 - c) What is the procedure of Receipt and Expenditure transactions with

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- regards to workshops Accounts in HPSEBL? (20)
- Q.4) a) Explain, how the accounts of cash are examined in HPSEBL. (30)
- b) What is the procedure of closing of works account and how errors, if any, are rectified on the completion of work? (30)
- Q.5) a) What is Accounting procedure for the transactions relating to material received for specific works in HPSEBL? (20)
- b) What precautions should be observed to avoid losses on store becoming surplus in the HPSEBL? (20)
- c) Who are authorized to grant advances in HPSEBL? explain. (20)

PART -II FOR ENGINEERING OFFICERS (CIVIL/MECHANICAL)

- Q.1) With respect to Hydroelectric Project comprising Barrage, Intake, Desilting Chamber, Head Race Tunnel, Surge Shaft, Pressure Shaft, Francis Turbine & Tail Race Tunnel, Explain the following:-
- a) Formula for calculation of Power in Megawatts. (10)
- b) Head Losses in the above system, explain in detail. (20)
- c) Explain sequence of operations for construction of Tunnels. (20)
- d) Survey & Investigations required for underground structures. (10)
- Q.2) a) List the types of diversion structures for Hydro Power Projects. (15)
- b) What are the main guidelines for selecting a satisfactory site for Locating Barrage? (15)
- c) Explain in detail design of a Diversion Structures. (30)
- Q.3) Explain the following:-
- a) Durability of Concrete. (10)
- b) Factor influencing the durability. (10)
- c) What are the requirements for durability? (10)

- d) Sequence wise stages of concreting right from batching plant to complete curing highlighting the key stages where additional precautions are required to be taken. (30)
- Q.4) a) Give brief description about classification of Tunnels according to their purpose shape and supporting arrangements. (15)
- b) What factors should be kept in mind during selection of Tunnel alignment? (15)
- c) What are the different methods of Tunneling? (15)
- d) What are the different types of lining? (15)

PART -III FOR ENGINEERING OFFICERS (ELECTRICAL)

- Q.1) a) Explain the following:
- i. Unbalanced Load.
 - ii. Peak load Restriction- Discontinuance & Penalty thereof.
 - iii. Change of Consumer.
 - iv. Resale of Energy. (12)
- b) Explain the conditions to be incorporated while conveying Load sanction. (30)
- c) What is the procedure of availing connection if sufficient funds are not available? (18)
- Q.2) a) What are the guidelines issued while extending the connection? (15)
- b) Explain how the reconnection is done where the disconnection is desired by a person other than the original consumer. (15)
- c) Explain in detail, under what circumstances a consumer is billed where the meter is found inaccurate. (30)
- Q.3) a) What procedure should be adopted in case Consumer insisting for correction of bill before making payment? (20)
- b) How the billing is carried out for a consumer having connected Load more than 100 KW. (20)
- c) How the final assessment is carried out for small Industrial Consumer

who is using energy dishonestly. (20)

Q.4) a) Can the Consumer Cash receipt book be kept open? Justify your answer. (30)

b) What is the procedure for disposal of Public money to the bank? (30)