

Syllabus for Technical questions in online exam – 120 marks

POST - ASSTT. EXE. ENG. (T/E) & EXE. ENG.(T/E)

SL. NO.	TOPIC(S)
1.	Electronics Devices and Circuits i. Components and Diodes ii. Bipolar Junction Transistor iii. Transistor Oscillators and FET and UJT iv. SCR, DIAC, TRIAC, MOSFET and IGBT v. Opto Electronics Devices and Wave Shaping Circuits
2.	Electric Circuits and Instrumentation i. D.C. Circuits and theorems ii. A.C. Circuits and resonance iii. Transformers and machines iv. Measuring Instruments and CRO
3.	Analog and Digital Electronics i. Linear ICS: OP-AMPS, Timers and their applications ii. Boolean Algebra iii. Combinational Logic iv. Sequential Logic v. D/A, A/D and Memory
4.	Industrial Electronics i. Power devices and Phase Control Circuits ii. Converters and Choppers (Qualitative Treatment only) iii. Inverters, SMPS and UPS
5.	Communication Engineering i. Networks, Antenna and Propagation ii. Amplitude Modulation iii. Angle and Pulse Modulation iv. Audio Systems v. Telegraph and TV fundamentals
6.	Advanced Communication Systems i. Radar and Navigational Aids ii. Digital Communication iii. Optical Communication iv. Satellite Communication v. Mobile Communication
7.	Television Engineering i. TV fundamentals ii. Television Transmitter

	iii. Television Receivers iv. Misc. Topics v. Modern cable TV System
8.	Internet Technology

POST - SR. ACCOUNTS OFFICER

SL. NO.	TOPIC(S)
1.	Accountancy including Cost Accountancy & Financial Management i. Preparation & Disclosures in Financial Statement ii. Indian AS and IFRS iii. Cost, Cost Accounting and Cost Control iv. Ratio Analysis v. Budgeting & Budgetary Controls vi. Investment Decisions vii. Project Evaluation viii. Working Capital Management ix. Fund Flow and Cash Flow Analysis
2.	Taxation including Case Laws Income Tax and GST
3.	Companies Act, 2013 with recent amendments & Major Port Authorities Act, 2021.
4.	Audit Basic Principles of Audit: Related to Service Sector, Duties and Responsibilities of Auditors: Objects of Audit; Principle, Common methods and Techniques of Auditing; Audit Programme; Internal Audit; Routine checking and vouching; Test Checks; Verification and Valuation of Assets; Detection and Prevention of frauds and defalcation, etc.; Precautions and Safeguards against leakage of revenue, Audit Investigations and Audit Reports.
5.	ERP-System Audit
6.	General Financial Rules, 2017

POST - ASSTT. EXECUTIVE ENGINEER (CIVIL)

SL. NO.	TOPIC(S)
1.	Design and analysis of structures, Design of RCC structures, Design of Steel Structures.
2.	Quantity Surveying and estimation, including recording measurements and preparing Rate Analysis.
3.	Surveying and levelling including recording measurement of works.
4.	Planning, Inspection and Quality Control in the construction, maintenance of buildings, roads, water supply and drainage works etc.
5.	Elements of Port and Harbour Engineering.
6.	Elements of Hydraulics

**POST - ASSTT. EXECUTIVE ENGINEER (M/E) – Asstt. Executive Engineer
(Electrical)**

SL. NO.	TOPIC(S)
A.	Mechanical Engineering (i) Components of diesel engine (medium speed and high speed) and petrol engine and their functions. (ii) Mechanical power transmission methods and devices, various gears and their functions, various types of antifriction bearing systems therein, various types of couplings. (iii) Hydraulic system and controls, various types of control valves, hydraulic pressure devices, their functions and applications.
B.	Electrical Engineering (i) Various kinds of electrical motors and their characteristics. Various types of starters and their applications. (ii) Basic electrical circuitry and switch gears. Various type of cables and applicability. Electrical safety devices fitted on electrical panel of generator. Electrical power transmission, Transformers and sub-stations. (iii) Basic electronics, Air-conditioning and Refrigeration - working cycle, Refrigerants and various cut-outs in the working cycle.

SYLLABUS FOR THE TEST OF INFORMATION TECHNOLOGY –
FOR ALL CLASS I POSTS

SL. NO.	TOPIC(S)
	<ol style="list-style-type: none">1. Use of Computers Technology and IoT in office management2. Office automation applications such as MS office, Word; Excel Spreadsheet and analytics; Power Point Presentation3. Web browsing & web technology4. Network system5. General Awareness about Information Technology, Website, Generative AI, etc.6. Uniform code; Google Indic etc.