

## Computer Based Test (CBT)

**Duration: 2 hours**

**Total Marks: 100**

All questions of the Computer Based Test (CBT) are objective and multiple choice type. Total number of questions in the CBT are 100. Each correct answer carries 1 mark and there is no negative marking for wrong answers.

### Syllabus

**Position: Assistant Boiler Technician**

**Part-1: General Aptitude**

**(50 Marks)**

1. Verbal Ability (English Language)
2. Quantitative Aptitude
3. Analytical Reasoning
4. General Knowledge, General Science & Environment

**Part-2: Technical**

**(50 Marks)**

1. Water quality treatment process such as demineralized plant.
2. Analysis of water, condensate for pH, TDS & their significance.
3. Derivation of water, boiler feed water preparation.
4. Steam & its properties, different types of steam.
5. Condensate systems, steam traps functioning,
6. Combustion principles, fuel properties & handling.
7. Economizer, preheaters, boilers, superheaters.
8. Reasons for boiler failures.
9. Use and purpose of various valves, cocks, mountings, fittings and safety devices.
10. Description and function of Boiler feed preparation unit, feed injector, feed regulator, feed water filters and feed heaters, air heaters, clarifiers, accumulators, forced draft fans, Induced draft fans. Draft system and draft control devices., soot blowers
11. Start up and shutdown of boiler, economizer.
12. Instrumentation of boiler
13. Boiler safety systems
14. Cause and effect of corrosion of boiler.
15. Combustion principles.
16. Purpose of super-heater, economizer, feed heater, Forced and induced draft and stokers.
17. Operation principle of steam turbines.
18. Working of compressors, air dryers, pumps.