



Gas Control Technician Test (GCT)

Preparation Guide

GSM&TS Study Guide

Gas Control Technician Classification

The following areas of knowledge have been utilized in compiling the Gas Control Technician assessment. This assessment is generic in nature and measures the knowledge level of the candidate. The candidate must receive a 70% successful completion rating for this assessment.

KNOWLEDGE AREA	FOCUS AREA
Electronics	<p>Semiconductors & Diodes</p> <ul style="list-style-type: none"> • Rectifiers • Diode Markings • Semiconductor Materials • Testing Diodes • Diode Installation • Diode Power Capacity <p>PC Board Construction and Repair</p> <ul style="list-style-type: none"> • Board Construction • Board Servicing • Soldering Techniques
Electrical	<p>Basic Electricity</p> <ul style="list-style-type: none"> • Ohms Law & Calculations • Electrical Units of Measure • AC and DC Series and Parallel Circuits • Kirchoff's Point Rule • Electrical Devices <ul style="list-style-type: none"> ○ Switches, Fuses, Breakers ○ Coils, Relays, Capacitors ○ 3 Phase and Single Phase Motors ○ Volt ohm meter, Ammeter, Phase rotation meter ○ Transformers
Measurement & Control	<p>Gas Measurement</p> <ul style="list-style-type: none"> • Practical Gas Flow • Fundamental Gas Laws <ul style="list-style-type: none"> ○ Boyles Law ○ Charles Law • Conversion Units <ul style="list-style-type: none"> ○ PSIG – PSIA ○ Degrees Rankin – Degrees Fahrenheit ○ Current to Pressure ○ Current to Voltage <p>Gas Control</p> <ul style="list-style-type: none"> • Pressure Transducers • Temperature Transducers • Process Control Systems <ul style="list-style-type: none"> ○ Proportional ○ Integral ○ Derivative • Process Terminology <ul style="list-style-type: none"> ○ Offset ○ Reset ○ Gain ○ Repeats per minute