



Plumbers,  
Gasfitters and  
Drainlayers Board

Examination Guide

9196

Certifying Gasfitter

Registration

Examination

August 2010

## **Introduction**

This document provides examination information to those who are intending to sit the 9196 Certifying Gasfitter registration examination leading to eligibility for registration as a Certifying Gasfitter by the Plumbers, Gasfitters and Drainlayers Board ("the Board").

## **Registration Examination 9196**

1. Candidates are expected to answer examination questions in accordance with the Acts, Regulations and Codes in force at 1 January of the calendar year of the examination.
2. The purpose of the examination is eligibility for registration under the Plumbers, Gasfitters, and Drainlayers Act 2006 ("the Act").
3. The pass mark is 60%.
4. The examination is administered and managed by the Board or its agent(s).

## **Examination Information**

Please refer to [www.pgdb.co.nz](http://www.pgdb.co.nz) for all examination information and forms.

## **Registration as a Certifying Gasfitter**

For information and an application form on how to become a Certifying Gasfitter, please refer to the Board's website.

## Certifying Registration Examinations

### 9196 Certifying Gasfitter

#### Introduction

The examination scope has been specified by a Notice published in Gazette. This notice can be accessed through the Board's website [www.pgdb.co.nz](http://www.pgdb.co.nz) under the "About us" – "Publications/Reference Docs" section.

#### Written examination

1. Advanced knowledge of and ability to access and apply legislation, standards and codes.
  - Specific documents will be provided during the examination to examine this topic.
2. Gas hot water supply systems.
  - Domestic water heating systems.
3. Gas supply pipe-work, service lines, meters and regulator systems.
  - Gas-pipe sizing.
  - Regulators: Simple constant-pressure regulators; Compensated regulators; High to low pressure regulators; Regulator capacity; Self-operated regulators; Relay-operated regulators; Pilot operated regulators; Regulator monitoring; Regulator maintenance.
  - LPG: Properties and characteristics of LPG; Calculating fuel storage requirements; Control equipment and components; Icing; Vaporisation; Maintenance of LPG systems.
  - Meters: Low-pressure and High-pressure metering; Meter readings; Mass flow metering; Meter installations.
4. Domestic gas-fired appliances and equipment installations.
  - Domestic space heating; Non-domestic space heating; Air heaters.
  - Domestic gas burners; Burner control systems; Fully automatic burners.
  - Flow controls.
  - Safety devices: Flame failure devices; Overtemperature protection; Air contamination; Air/gas supply failure; Overpressure protection; Burning back; Safety interlocks.
  - Testing, purging and commissioning domestic installations.
  - Composition of fuel gases.
5. Commercial gas-fired appliances and equipment installations.
  - Commercial gas burners; Burner control systems; Fully automatic burners.
  - Flow controls.
  - Safety devices: Flame failure devices; Overtemperature protection; Air contamination; Air/gas supply failure; Overpressure protection; Burning back; Safety interlocks.
  - Testing, purging and commissioning commercial installations.
  - Composition of fuel gases.

6. Industrial gas-fired appliances and equipment installations.
  - Industrial gas burners; Burner control systems; Fully automatic burners.
  - Flow controls.
  - Safety devices: Flame failure devices; Overtemperature protection; Air contamination; Air/gas supply failure; Overpressure protection; Burning back; Safety interlocks.
  - Testing, purging and commissioning industrial installations.
  - Composition of fuel gases; Flue gas analysis.
  
7. Gasfitting fluing and combustion air.
  - Composition of fuel gases; Combustion; Flue gas analysis and analysers.
  - Flue systems: Natural draught flues; Power flues.
  - Testing, purging and commissioning installations.

## Legislation

Legislation that contains some requirements relevant to this paper.

These legislation documents can be downloaded free from [www.legislation.govt.nz](http://www.legislation.govt.nz).

- Plumbers, Gasfitters, and Drainlayers Act 1976 (for 2010 examinations)
- Plumbers, Gasfitters, and Drainlayers Act 2006 (from 2011 onwards)
- Gas Act 1992
- Gas Regulations 1993, amended 2002 (for 2010 examinations)
- Gas (Safety and Measurement) Regulations 2010 (for 2011 onwards)
- New Zealand Building Code and Handbook
- Hazardous Substances and New Organisms Act 2002.

## Standards ([www.standards.co.nz](http://www.standards.co.nz))

Standards that contain some requirements relevant to this paper.

- NZS5261:2003 Gas installation
- NZS5262:2003 Gas appliance safety
- AS/NZS1596:2008 The storage and handling of LP Gas
- NZS5428:2006 LPG installation for non-propulsive purposes in caravans and boats.

### Weighting

	Topics	Marks
1.	Advanced knowledge of and ability to access and apply legislation, standards and codes	10
2.	Gas hot water supply systems	10
3.	Gas supply pipe-work, service lines, meters and regulator systems	20
4.	Domestic gas-fired appliances and equipment installations	20
5.	Commercial gas-fired appliances and equipment installations	15
6.	Industrial gas-fired appliances and equipment installations	15
7.	Gasfitting fluing and combustion air	10
	<b>Total marks</b>	<b>100</b>
	This weighting schedule is a recommendation and guide for tutors, examiners, moderators and candidates. It gives an approximate allocation of the emphasis given to topics in the examination.	