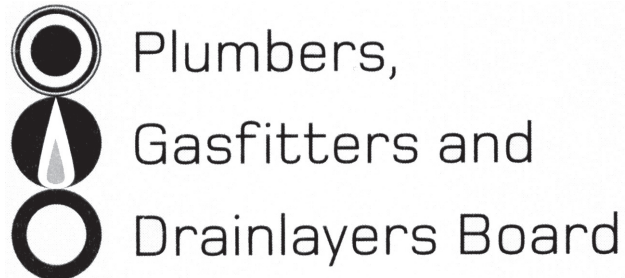


No. 9196



REGISTRATION EXAMINATION, JUNE 2018  
**CERTIFYING GASFITTER**

**ANSWER SCHEDULE**

## ANSWER 1

Diagram to show:

- 1st and 2nd stage regulators.
- Pigtails.
- Excess flow in pigtails.
- Test point or plug on drip leg.
- Drip leg located correctly.
- Correct length of drip leg.
- Regulator located above the cylinders.

**Total 7 Marks**

## ANSWER 2

Longest run (m)	17.75 m
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(1 mark)

Pipe Section	Length (m)	Gas flow (MJ/h)	Nominal size (mm)
A – B	8 (½ mark)	154.19 (½ mark)	25 (1 mark)
B – C	2 (½ mark)	18.97 (½ mark)	10 (1 mark)
B – D	2 (½ mark)	135.2 (½ mark)	20 or 25 (1 mark)
D – E	2.5 (½ mark)	56 (½ mark)	20 (1 mark)
D – F	5 (½ mark)	79.2 (½ mark)	20 (1 mark)
F – G	1 (½ mark)	43.2 (½ mark)	15 (1 mark)
F – H	2.75 (½ mark)	36 (½ mark)	15 (1 mark)

(14 marks)

**Total 15 Marks**

## ANSWER 3

(a) Any TWO (1 mark each)

- Room carbon monoxide testing.
- Pressure and soundness testing.
- Flue spillage testing.
- Combustion testing.

(2 marks)

(b) • Certificate of Verification.

(1 mark)

(c) Any TWO (1 mark)

- Documentation.
- Interview.
- Visual inspection.
- Testing.
- Questionnaire.

(2 marks)

(d)	Situation	Category
	A new gas installation in a one-storey building is being completed.	General
	A hob is being fitted in a caravan.	High
	A gas appliance is being serviced.	Low
	A gas heater is being added to an existing installation.	High

(4 marks)

(ii) • High Risk (1 mark)

(iii) • Energy Safety (1 mark)

**Total 11 Marks**

#### ANSWER 4

(a) Any FIVE (1 mark each)

- Inform the occupier that the gas supply will be turned off.
- Test the existing installation for leakage.
- Turn the gas supply off.
- Positively identify the pipe.
- Fit an earth bonding strap.
- Purge the pipe.

(5 marks)

(b)

- Data plate.
- Aeration.
- Operating pressure.
- Regulator.
- By-passes.
- Injectors.

(6 marks)

(c)

- Size/diameter.
- Labelling.

(2 marks)

**Total 13 Marks**

## ANSWER 5

- (a) • With components belonging to the same system.  
• With the written approval of the manufacturer. (2 marks)

- (b) • A manufacturer's label is to be attached adjacent to the meter or LPG cylinders. (2 marks)

**Total 4 marks**

## ANSWER 6

- (a) • AS/NZS 5601: Part 1. (1 mark)

- (b) • The lowest burner is over 200 mm above the mounting surface.  
• A heat shield below the burner is incorporated in the design of the appliance. (2 marks)

- (c) (i) • 600 mm (top of pan). (1 mark)

- (ii) • 1350 mm. (1 mark)

- (d) • Six. (1 mark)

**Total 6 Marks**

## ANSWER 7

- (a) AB:  $0.7854 \times 0.04^2 \times 14 = 0.01759 \text{ m}^3 = 17.59 \text{ litres}$   
BC:  $0.7854 \times 0.032^2 \times 8.9 = 0.00716 \text{ m}^3 = 7.16 \text{ litres}$   
CD:  $0.7854 \times 0.025^2 \times 6.6 = 0.00324 \text{ m}^3 = 3.24 \text{ litres}$   
Other:  $0.7854 \times 0.02^2 \times 6.6 = 0.00207 \text{ m}^3 = 2.07 \text{ litres}$   
Total = 30.1 litres (5 marks)

- (b) • 0 kPa. (1 mark)

**Total 6 Marks**

## ANSWER 8

- (a) • Personal health issues of co-worker (heart attack, stroke etc).  
• Accident e.g. fall.  
• Electric shock. (3 marks)
- (b) • Assess risks to personal safety. (1 mark)
- (c) • Incident form.  
• Accident investigation form.  
• Notification of Accident or Serious Harm form. (2 marks)
- (d) • WorkSafe (1 mark)
- (e) Any FIVE (1 mark each)  
• Nature of work.  
• Address of worksite.  
• Contractor details.  
• Brief description of work.  
• Due date of commencement.  
• Estimated time to complete. (5 marks)

**Total 13 Marks**

## ANSWER 9

- (a) • Leakage test. 5 kPa (2 marks)  
• Pipework test on new pipework. 7.5 kPa (2 marks)  
• Installation or leakage test. 5 kPa (2 marks)  
• Final connection test. 5 kPa (2 marks)  
(8 marks)
- (b) • Retest the pipework at higher pressure.  
• Check the appliance regulators are rated for the pressure increase.  
• Check the appliance operating pressures/re-commission. (3 marks)

**Total 11 Marks**

## ANSWER 10

(a)

	Situation A: Lateral length 0.6 m	Situation B: Lateral length 1.5 m
Minimum flue diameter	100 mm	125 mm

(b)

	Situation A: Lateral length 0.6 m	Situation B: Lateral length 1.5 m
Minimum flue diameter	125 mm	125 mm

**Total 4 Marks**

## SECTION B

1. B 125
2. D 30 litres
3. D 150 mm
4. E 14.0 kPa
5. C E2
6. B The owner/occupier and Energy Safety
7. D 164 MJ/h
8. D 24 months
9. A 10 m<sup>3</sup>
10. A Attached to a wooden fence
11. E 3.0 m

**Total 11 Marks**