

6219 Entry Level and Level 1 Awards, Certificates and Diplomas in Construction Skills

**Candidate task manual – Plastering, Plumbing and
Electrical**



www.cityandguilds.com
November 2015
Version 1.6

About City & Guilds

City & Guilds is the UK's leading provider of vocational qualifications, offering over 500 awards across a wide range of industries, and progressing from entry level to the highest levels of professional achievement. With over 8500 centres in 100 countries, City & Guilds is recognised by employers worldwide for providing qualifications that offer proof of the skills they need to get the job done.

City & Guilds Group

The City & Guilds Group includes City & Guilds, ILM (the Institute of Leadership & Management, which provides management qualifications, learning materials and membership services), City & Guilds HAB (the Hospitality Awarding Body), and City & Guilds Centre for Skills Development. City & Guilds also manages the Engineering Council Examinations on behalf of the Engineering Council.

Equal opportunities

City & Guilds fully supports the principle of equal opportunities and we are committed to satisfying this principle in all our activities and published material. A copy of our equal opportunities policy statement is available on our website.

Copyright

The content of this document is, unless otherwise indicated, © The City and Guilds of London Institute and may not be copied, reproduced or distributed without prior written consent.

However, approved City & Guilds centres and candidates studying for City & Guilds qualifications may photocopy this document free of charge and/or include a PDF version of it on centre intranets on the following conditions:

- centre staff may copy the material only for the purpose of teaching candidates working towards a City & Guilds qualification, or for internal administration purposes
- candidates may copy the material only for their own use when working towards a City & Guilds qualification

The *Standard Copying Conditions* (which can be found on our website) also apply.

Please note: National Occupational Standards are not © The City and Guilds of London Institute. Please check the conditions upon which they may be copied with the relevant Sector Skills Council.

Publications

City & Guilds publications are available from our website or from our Publications Sales department, using the contact details shown below.

Every effort has been made to ensure that the information contained in this publication is true and correct at the time of going to press. However, City & Guilds' products and services are subject to continuous development and improvement and the right is reserved to change products and services from time to time. City & Guilds cannot accept liability for loss or damage arising from the use of information in this publication.

City & Guilds

1 Giltspur Street

London EC1A 9DD

T +44 (0)844 543 0000

www.cityandguilds.com

F +44 (0)20 7294 2413

candidatesupport@cityandguilds.com

6219 Entry Level and Level 1 Awards, Certificates and Diplomas in Construction Skills

**Candidate task manual – Plastering, Plumbing and
Electrical**

Version and date	Change detail	Section
V1.2 October 2014	<p>Knowledge tasks removed to insert in separate 'End of unit knowledge questions' document.</p> <p>Removal of erroneous references to permission for candidates to have marking criteria with them during practical tasks.</p>	<p>Knowledge tasks</p> <p>Practical tasks</p>
V1.3 November 2014	<p>Assignment 130 Task A: Fig 1 amended.</p> <p>Assignments 010; 128; 129; 130; 132: tolerances changed.</p> <p>Task completion record for assignments 101 and 102 added.</p>	<p>Practical tasks</p> <p>Practical tasks</p> <p>Unit assessment overview</p>
V1.4 January 2015	Assignment 127 Task A checklist minor typing error	Practical tasks
V1.5 October 2015	Minor update on guidance for assignment 127	Practical tasks
V1.6 November 2015	Assignment 011 Task B marking criteria included	Practical tasks

1	Unit assessment overview	5
1.1	Task completion record	5
2	Practical tasks	11
Assignment 008	Preparing background surfaces and applying render coats	12
Assignment 125	Preparing background surfaces and applying finishing coats	15
Assignment 126	Mixing materials and applying floating coats	18
Assignment 127	Producing components from moulds	21
Assignment 011	Connecting flex to common apparatus	24
Assignment 133	Assembling 13amp switched sockets wired in ring final circuit	28
Assignment 134	Constructing PVC wiring systems	31
Assignment 135	Cutting bending joining and threading conduit	33
Assignment 136	Installing one way lighting circuit	35
Assignment 137	Installing two way lighting circuit	39
Assignment 009	Removing and refitting water-filled radiators	43
Assignment 010	Working with non-manipulative fittings	45
Assignment 128	Bending and jointing copper pipe	48
Assignment 129	Connecting pipes and fittings to appliances	51
Assignment 130	Constructing combined frames	54
Assignment 131	Installing rain water goods	57
Assignment 132	Working with low carbon steel pipe and fittings	60
	Unit feedback and forward planning form	63
	Useful contacts	64

This *Candidate task manual* is a record of your achievement in practical assessments. You must keep it in good condition and it must be stored in a safe place by your Assessor.

Please fill in all of your details before you carry out any assessments.

Candidate Details

Surname		Forename(s)	
City & Guilds enrolment number			

Centre Details

Name		Centre No	
------	--	-----------	--

I understand the requirements of the qualification and that all the work towards the assessments must be my own.

Candidate signature (please print)	
--	--

Assessor name (please print)		Signed	
--	--	--------	--

Date	
------	--

1 Unit assessment overview

1.1 Task completion record

To be completed by Assessor:

Assignment 101 Introduction to health and safety in construction

Task	Grade for task
A1 Why health and safety is important	P / X
A2 The role of the Health and Safety Executive	P / X
A3 Health and safety regulations	P / X
A4 Responsibility for health and safety	P / X
A5 Common causes of accidents in the construction industry - hazards	P / X
A6 Common causes of accidents in the construction industry - risks	P / X
A7 Risk assessment	P / X
A8 Health and safety sign categories	P / X
A9 Identify safety signs	P / X
A10 Identify COSSH signs	P / X
A11 Types of personal protective equipment (PPE)	P / X
A12 Purpose of personal protective equipment	P / X

All tasks must be passed for the unit to be achieved. Grading should be taken from the assessor guidance document. The overall grade should be calculated using the Marking Criteria in the Assessor Guide and transferred here.

Assessor signature and date:

Overall grade

P / M / D / X

Assignment 102 Introduction to the construction industry

Task	Grade for task
A1 Types of construction	P / X
A2 Sustainable construction	P / X
A3 Identify design features	P / X
A4 Energy saving materials used in the construction industry	P / X
A5 Construction industry activities	P / X
A6 Job opportunities in the construction industry	P / X

All tasks must be passed for the unit to be achieved. Grading should be taken from the assessor guidance document. The overall grade should be calculated using the Marking Criteria in the Assessor Guide and transferred here.

Assessor signature and date:

Overall grade

P / M / D / X

Assignment 008 Preparing background surfaces and applying render coats

Task	Grade for task
A Prepare a surface and apply a render coat	P / X
B Knowledge Task	P / X

All tasks must be passed for the unit to be achieved.

Assessor signature and date:	The overall grade will be pass/fail	Overall grade	

Assignment 125 Preparing background surfaces and applying finishing coats

Task	Grade for task
A Prepare a background surface and apply finishing coats	P / M / D / X

All tasks must be passed for the unit to be achieved.

Assessor signature and date:	The overall grade will be the same as the single graded task in this unit.	Overall grade	

Assignment 126 Mixing materials and applying floating coats

Task	Grade for task
A Mix materials and apply a floating coat	P / M / D / X
B Knowledge Task	P / X

All tasks must be passed for the unit to be achieved.

Assessor signature and date:	The overall grade will be the same as the single graded task in this unit.	Overall grade	

Assignment 127 Producing components from moulds

Task	Grade for task
A Produce a cast from a mould	P / M / D / X

All tasks must be passed for the unit to be achieved.

Assessor signature and date:	The overall grade will be the same as the single graded task in this unit.	Overall grade	

Unit 011 Connecting flex to common apparatus

Task	Grade for task
A Practical task	P / X
B Practical task	P / X
C Knowledge task	P / X

All tasks must be passed for the unit to be achieved.

Assessor signature and date:	The overall grade will be pass/fail.
	Overall grade

Unit 133 Assembling 13amp switched sockets wired in ring final circuit

Task	Grade for task
A Practical task	P / M / D / X
B Knowledge task	P / X

All tasks must be passed for the unit to be achieved.

Assessor signature and date:	The overall grade will be the same as the single graded task in this unit.
	Overall grade

Unit 134 Constructing PVC Wiring Systems

Task	Grade for task
A Practical task	P / M / D / X
B Knowledge task	P / X

All tasks must be passed for the unit to be achieved.

Assessor signature and date:	The overall grade will be the same as the single graded task in this unit.
	Overall grade

Unit 135 Cutting bending joining and threading conduit

Task	Grade for task
A Practical task	P / M / D / X
B Knowledge task	P / X

All tasks must be passed for the unit to be achieved.

Assessor signature and date:	The overall grade will be the same as the single graded task in this unit.
	Overall grade

Unit 136 Installing one way lighting circuit

Task	Grade for task
A Practical task	P / X
B Knowledge task	P / X

All tasks must be passed for the unit to be achieved.

Assessor signature and date:	The overall grade will be pass/fail.
	Overall grade

Unit 137 Installing two way lighting circuit

Task	Grade for task
A Practical task	P / X
B Knowledge task	P / X

All tasks must be passed for the unit to be achieved.

Assessor signature and date:	The overall grade will be pass/fail.
	Overall grade

Unit 009 Removing and refitting a water-filled radiators

Task	Grade for task
A Practical task	P / X
B Knowledge task	P / X

All tasks must be passed for the unit to be achieved.

Assessor signature and date:	The overall grade will be pass/fail.
	Overall grade

Unit 010 Working with non-manipulative fittings

Task	Grade for task
A Practical task	P / X
B Knowledge task	P / X

All tasks must be passed for the unit to be achieved.

Assessor signature and date:	The overall grade will be pass/fail.
	Overall grade

Unit 128 Bending and Jointing copper pipe

Task	Grade for task
A Practical task	P / M / D / X
B Knowledge task	P / X

All tasks must be passed for the unit to be achieved.

Assessor signature and date:	The overall grade will be the same as the single graded task in this unit.	
	Overall grade	

Unit 129 Connecting Pipes and Fittings to Appliances

Task	Grade for task
A Practical task	P / M / D / X
B Knowledge task	P / X

All tasks must be passed for the unit to be achieved.

Assessor signature and date:	The overall grade will be the same as the single graded task in this unit.	
	Overall grade	

Unit 130 Constructing combined frames

Task	Grade for task
A Practical task	P / M / D / X
B Knowledge task	P / X

All tasks must be passed for the unit to be achieved.

Assessor signature and date:	The overall grade will be the same as the single graded task in this unit.	
	Overall grade	

Unit 131 Installing rain water goods

Task	Grade for task
A Practical task	P / X
B Knowledge task	P / X

All tasks must be passed for the unit to be achieved.

Assessor signature and date:	The overall grade will be pass/fail.	
	Overall grade	

Unit 132 Working with low carbon steel pipe and fittings

Task	Grade for task
A Practical task	P / M / D / X
B Knowledge task	P / X

All tasks must be passed for the unit to be achieved.

Assessor signature and date:

The overall grade will be the same as the single graded task in this unit.

Overall grade

2 Practical tasks

**Assignment 008 Preparing background surfaces and
applying render coats**

Task A Prepare a surface and apply a render coat

To complete this task you must prepare a background surface to receive a render scratch coat and apply the render to the specification in the diagram provided.

You may have a copy of the diagram during the practical assessment. Your assessor will support you with this.

Your assessor will advise how long you have to complete this task.

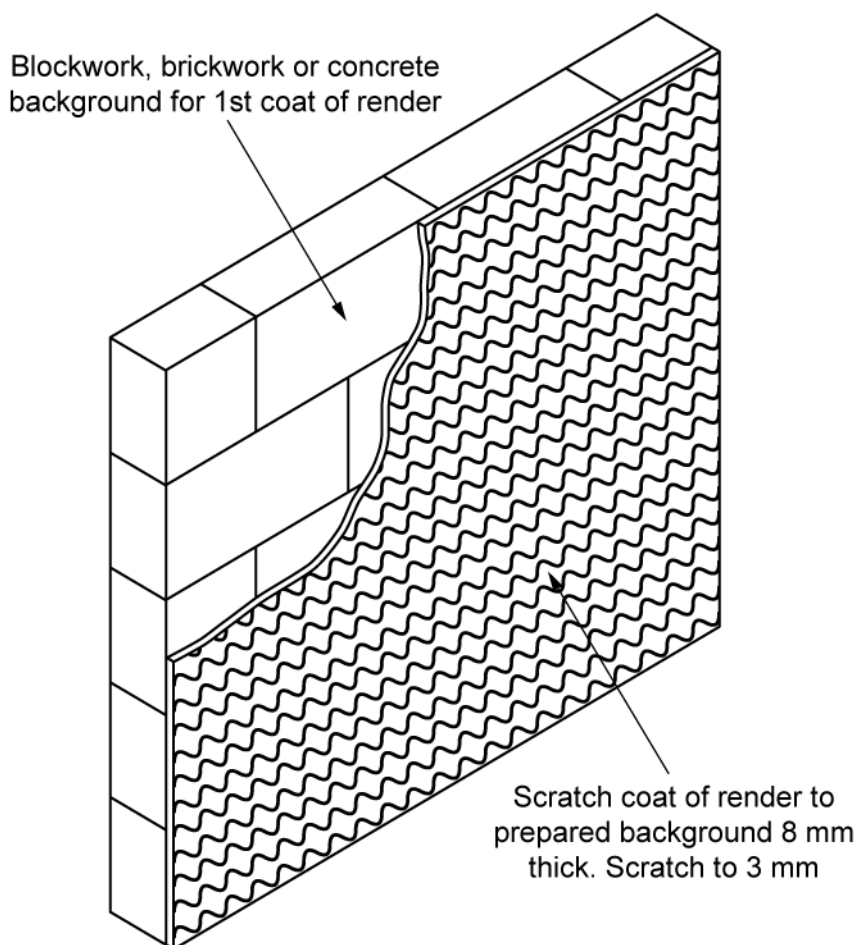
This task may be achieved at pass only.

Assignment 008 Preparing background surfaces and applying render coats

Task A Prepare a surface and apply a render coat

Fig 1

Specification – Area to be 1m²



Assignment 008 Preparing background surfaces and applying render coats

Task A Marking criteria

Candidate name _____

Assessor name _____

Centre name _____

To pass the assignment, candidates are required to complete each task to the minimum standard indicated below.

The candidate has:	Pass	Merit	Distinction
identified and used appropriate Personal Protective Equipment (PPE)	<input type="checkbox"/>		
identified and selected the appropriate materials required	<input type="checkbox"/>		
identified and selected the appropriate tools and equipment required	<input type="checkbox"/>		
set up and maintained a clean and safe working area following health and safety guidelines	<input type="checkbox"/>		
correctly prepared the background surface	<input type="checkbox"/>		
mixed the materials to a workable consistency (including pre-mix)	<input type="checkbox"/>		
applied the render to the correct depth of 8mm +/- 3	<input type="checkbox"/>		
applied the scratch key without penetrating to the background surface to a depth of 3mm	<input type="checkbox"/>		
cleared work area of surplus materials and debris on completion of the job	<input type="checkbox"/>		

Assignment passed? Yes/No

Assessor signature _____

Date _____

Assignment 125 Preparing background surfaces and applying finishing coats

Task A

Prepare a background surface and apply finishing coats

To complete this task you must prepare a background surface and apply finishing coats to the specification in the diagram provided.

Your assessor will advise how much time you have to complete this task.

You may have a copy of the diagram during the practical assessment. Your assessor will support you with this.

Your assessor will also ask you **one** oral question which must be answered correctly to pass this Assignment.

This task may be achieved at pass, merit or distinction.

**Assignment 125
applying**

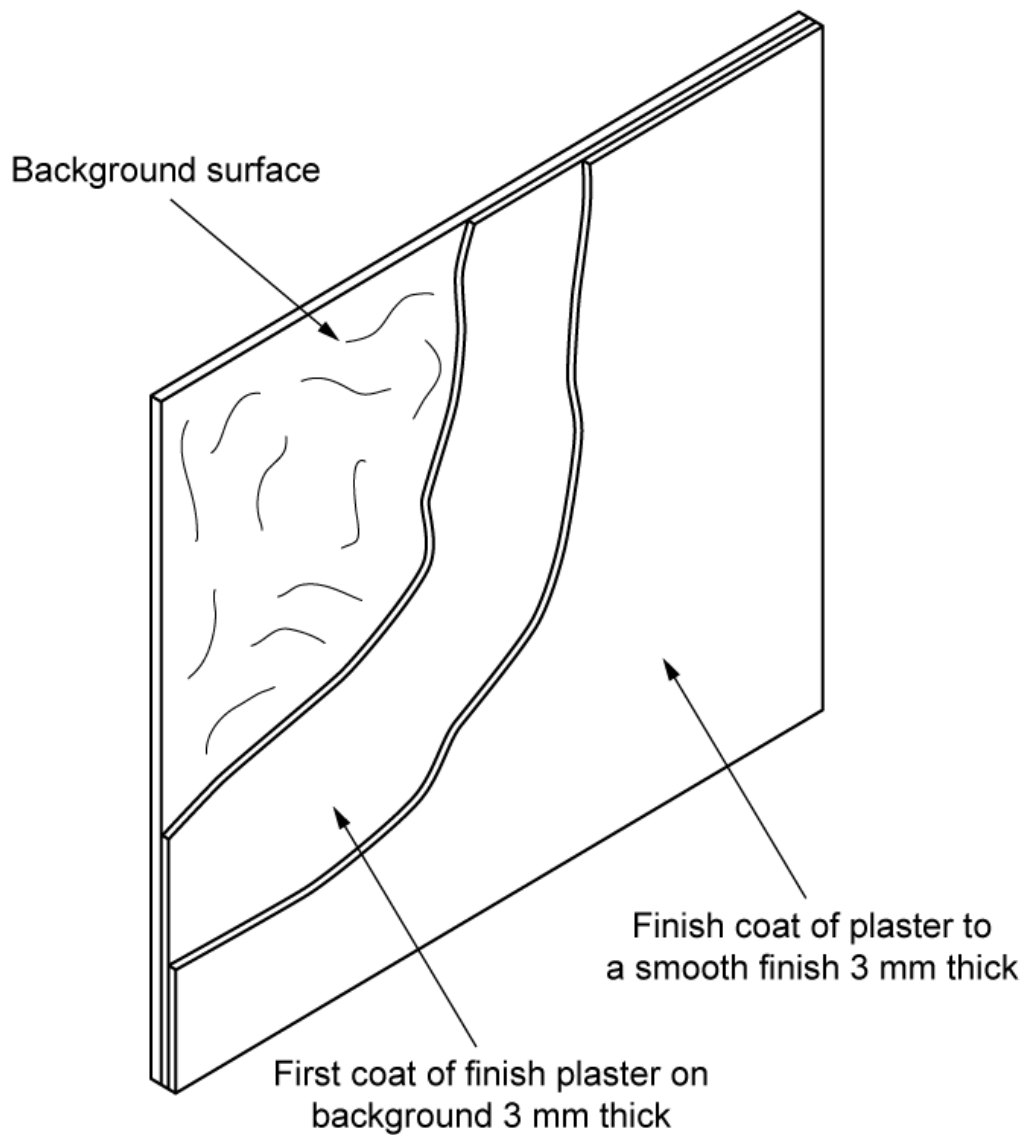
Task A

**Preparing background surfaces and
finishing coats**

Prepare a background surface and apply
finishing coats

Fig 1

Specification – Area to be 1m²



Assignment 125 applying

Preparing background surfaces and finishing coats

Task A

Marking criteria

Candidate name _____

Assessor name _____

Centre name _____

To pass the assignment, the candidate is required to complete each task to the minimum standard indicated below. All criteria for each grade must be achieved to claim that grade.

The candidate has	Pass	Merit	Distinction
identified and used correct Personal Protective Equipment (PPE) at all times	<input type="checkbox"/>		
identified and selected tools and equipment required	<input type="checkbox"/>		
identified and selected materials required	<input type="checkbox"/>		
set up and maintained a safe working area throughout the task	<input type="checkbox"/>		
prepared the background surface appropriately to receive the finish plaster coats	<input type="checkbox"/>		
mixed the materials to a workable consistency	<input type="checkbox"/>		
applied the first finishing coat to 3mm even depth	<input type="checkbox"/>		
applied a second finishing coat to 3mm even depth	<input type="checkbox"/>		
completed with a maximum of:	<input type="checkbox"/> 5 defects	<input type="checkbox"/> 3 defects	<input type="checkbox"/> 2 defects
cleared work area of all surplus materials and debris on completion	<input type="checkbox"/>		
cleaned all tools and equipment for re-use	<input type="checkbox"/>		
correctly answered the question	<input type="checkbox"/>		

Assignment passed?

Final grade: Pass/Merit/Distinction

Assessor signature _____

Date _____

Assignment 126 Mixing materials and applying floating coats

Task A Mix materials and apply a floating coat

Candidate Guidance

To complete this task you must mix materials and apply a floating coat to the specification in the diagram provided.

You may have a copy of the diagram during the practical assessment. Your assessor will support you with this.

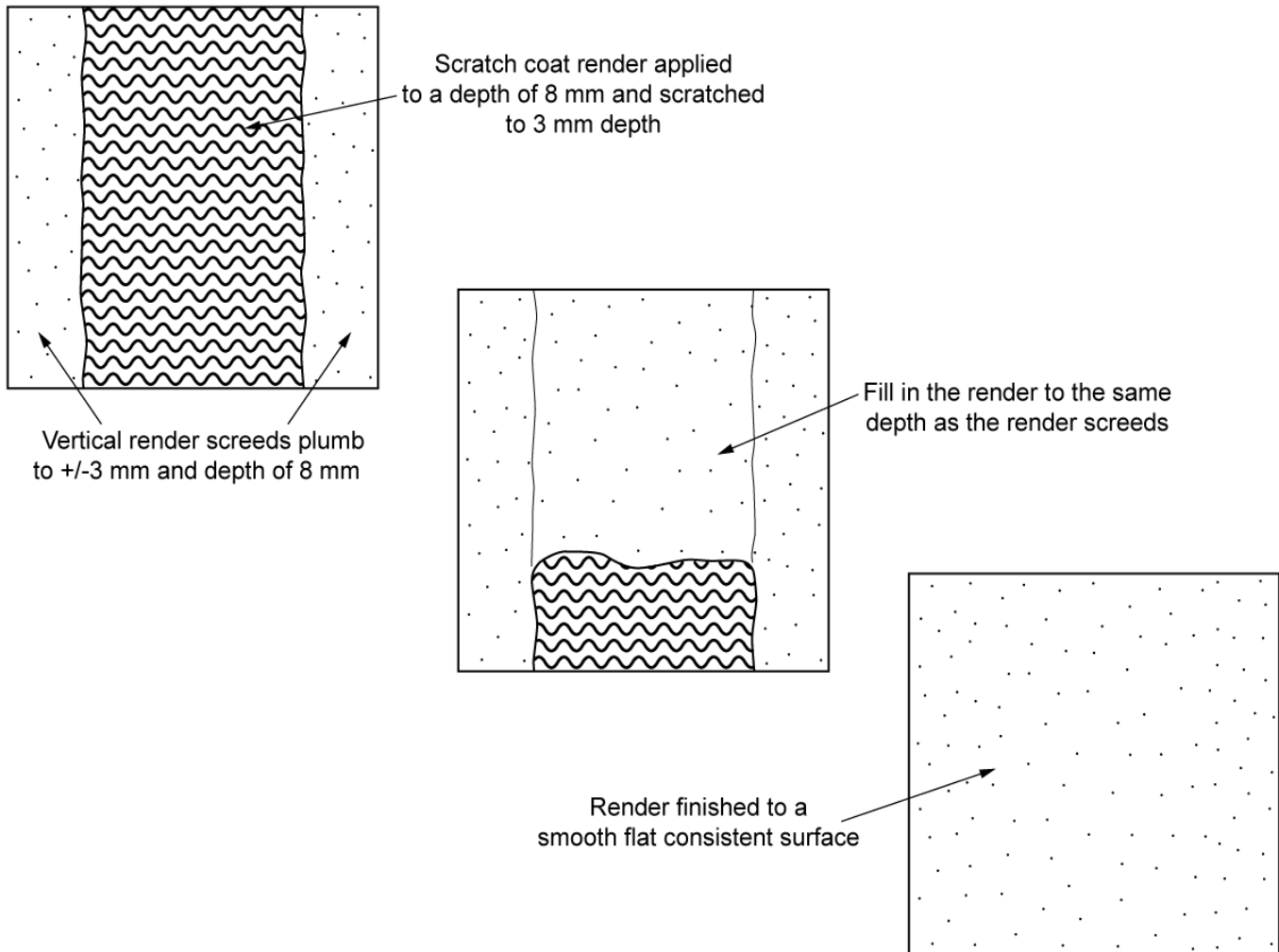
Your assessor will advise you how long you have to complete this task.

This task can be achieved at pass, merit or distinction.

Assignment 126 Mixing materials and applying floating coats

Task A Mix materials and apply a floating coat

Fig 1
Specification – Area to be 1m²



Assignment 126 Mixing materials and applying floating coats

Task A Marking criteria

Candidate name _____

Assessor name _____

Centre name _____

To pass the assignment, candidates are required to complete each task to the minimum standard indicated below. All criteria for each grade must be achieved to claim that grade.

The candidate has:	Pass	Merit	Distinction
identified and used the appropriate Personal Protective Equipment (PPE).	<input type="checkbox"/>		
identified and selected the materials required	<input type="checkbox"/>		
identified and selected the tools and equipment required	<input type="checkbox"/>		
set up and maintained a clean and safe working area following health and safety guidelines	<input type="checkbox"/>		
mixed the materials, either sand and lime (or cement) or pre-mix to a workable consistency	<input type="checkbox"/>		
formed screeds to a minimum of 8mm depth	<input type="checkbox"/>		
plumbed to +/- 3mm	<input type="checkbox"/>		
formed a floating coat ruling off with a feather edge using the screed to form a flat surface	<input type="checkbox"/>		
floated the surface to a smooth finish	<input type="checkbox"/>		
completed with a maximum of	<input type="checkbox"/> 3 defects	<input type="checkbox"/> 2 defects	<input type="checkbox"/> 1 defect
cleared work area of surplus materials and debris on completion of the job	<input type="checkbox"/>		
cleaned all tools and equipment ready for re-use	<input type="checkbox"/>		

Assignment passed? **Final grade:** Pass/Merit/Distinction

Assessor signature _____

Date _____

Assignment 127 Producing components from moulds

Task A Produce a component from a mould

To complete this task you must mix materials, including reinforcement, where necessary and produce **two** casts from moulds to the specification in the diagram provided.

You should choose the best **one** of these two casts to prepare for assessment.

Your assessor will advise you how long you are allowed to complete this task.

Your assessor will also ask you **one** oral question which must be answered correctly to pass this Assignment.

This task can be achieved at pass, merit or distinction.

Examples of moulds



Assignment 127 Producing components from moulds

Task A Marking criteria



Candidate name _____

Assessor name _____

Centre name _____

To pass the assignment, the candidate is required to complete each task to the minimum standard indicated below. All criteria for each grade must be achieved to claim that grade.

The candidate has:	Pass	Merit	Distinction
identified and used correct Personal Protective Equipment (PPE)	<input type="checkbox"/>		
identified and selected the correct tools and equipment	<input type="checkbox"/>		
identified and selected the correct materials	<input type="checkbox"/>		
set up and maintained a safe working area throughout the task according to health and safety guidelines.	<input type="checkbox"/>		
mixed the materials to a workable consistency	<input type="checkbox"/>		
added reinforcement materials if necessary	<input type="checkbox"/>		
prepared the mould correctly for casting. i.e. cleaned and supported	<input type="checkbox"/>		
filled the moulds to ensure no air pockets	<input type="checkbox"/>		
produced two casts from moulds to a given specification	<input type="checkbox"/>		
levelled the base	<input type="checkbox"/>		
released the casts	<input type="checkbox"/>		
chosen and tidied one cast to rectify imperfections for marking	<input type="checkbox"/>		
completed with a maximum of	<input type="checkbox"/> 2 defects	<input type="checkbox"/> 1 defect	<input type="checkbox"/> no defects
cleared work area of all surplus materials and debris on completion of the job.	<input type="checkbox"/>		
cleaned all tools and equipment ready for re-use	<input type="checkbox"/>		

Assignment passed? **Final Grade:** - Pass/Merit/Distinction

Assessor signature _____

Date _____

Assignment 011 Connecting flex to common apparatus

Task A

Practical task

Candidate guidance

To complete this task you must connect flex to a ceiling rose and lamp holder with a prescribed distance between the two accessories as shown in the diagram labelled Fig.1 below. You will need to set up your work area, work in a safe manner at all times and should leave your work area and tools clean and tidy. You will also be asked to complete a tools and equipment and a materials checklist. These will be given to you by your assessor to be completed before starting the practical task.

You must:

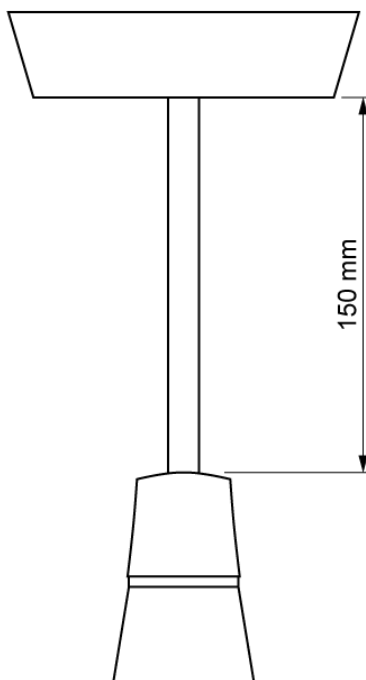
- Identify and wear correct PPE for this task
- Identify and select the tools and equipment for this task
- Identify and select materials to complete the task
- Connect flex to the ceiling rose and lamp holder
- Be able to setup and maintain a clean and safe working environment

Your target time is **1 hour** to complete this task

This task can be achieved at Pass only and the tolerance is +/-10mm

You will also be asked three underpinning knowledge questions. Question one must be answered correctly and you must achieve 4 out of 6 marks from questions two and three to achieve a pass.

Fig 1.



Assignment 011 Connecting flex to common apparatus

Task B Practical task

Candidate guidance

To complete this task you must connect flex to a plug top as shown in the diagram labelled Fig.2 below. You will need to set up your work area, work in a safe manner at all times and should leave your work area and tools clean and tidy. You will also be asked to complete a tools and equipment and a materials checklist. These will be given to you by your assessor to be completed before starting the practical task.

You must:

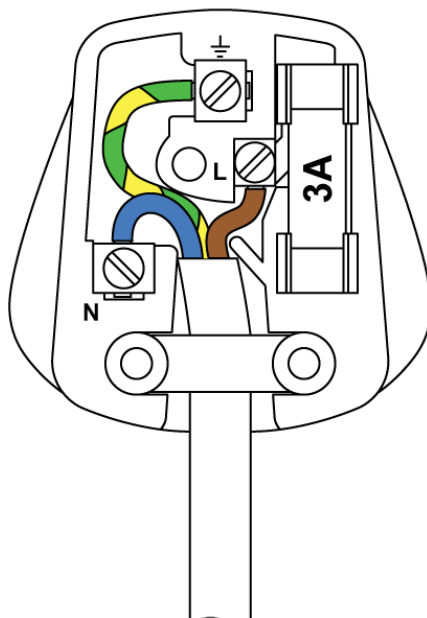
- Identify and wear correct PPE for this task
- Identify and select the tools and equipment for this task
- Identify and select materials to complete the task
- Connect flex to the plug top
- Be able to setup and maintain a clean and safe working environment

Your target time is **1 hour** to complete this task.

This task can be achieved at Pass only.

You will also be asked three underpinning knowledge questions. Question one must be answered correctly and you must achieve 4 out of 6 marks from questions two and three to achieve a pass.

Fig 2.



Assignment 011 Connecting flex to common apparatus



Task A

Marking criteria

Candidate name _____

Assessor name _____

Centre name _____

To pass the assignment, candidates are required to complete each task to the minimum standard indicated below.

The candidate has:	Pass	Merit	Distinction
Used appropriate Personal Protective Equipment (PPE)	<input type="checkbox"/>		
Identified and selected materials required	<input type="checkbox"/>		
Identified and selected tools and equipment required	<input type="checkbox"/>		
Ensured the lamp holder and ceiling rose covers tight	<input type="checkbox"/>		
Ensured there are no unsheathed conductors visible	<input type="checkbox"/>		
Used cord grip correctly and cord is secure	<input type="checkbox"/>		
Ensured no stray conductor strands visible	<input type="checkbox"/>		
Made core insulation to within 2mm of the terminals	<input type="checkbox"/>		
Made terminals tight	<input type="checkbox"/>		
Ensured conductors are secure, doubled and undamaged	<input type="checkbox"/>		
Distance between ceiling rose and lamp holder 150mm	<input type="checkbox"/> +/- 10mm		

Assignment passed? Yes / No

Assessor signature _____

Date _____

Assignment 011 Connecting flex to common apparatus

Task B Marking criteria

Candidate name _____

Assessor name _____

Centre name _____

To pass the assignment, candidates are required to complete each task to the minimum standard indicated below.

The candidate has:	Pass	Merit	Distinction
Used appropriate Personal Protective Equipment (PPE)	<input type="checkbox"/>		
Identified and selected tools and equipment required	<input type="checkbox"/>		
Identified and selected materials required	<input type="checkbox"/>		
Removed the outer layer of cable to expose the required length of wires completed, without damage to the insulation of the three wires	<input type="checkbox"/>		
Removed the insulation to expose the required length of bare wire	<input type="checkbox"/>		
Securely fix the bare wires to the appropriate terminals	<input type="checkbox"/>		
Ensured no bare strands of wire are visible	<input type="checkbox"/>		
Used the cable grip correctly and the cable is secure	<input type="checkbox"/>		
Replaced the plug cover	<input type="checkbox"/>		

Assignment passed? Yes / No

Assessor signature _____

Date _____

Assignment 133 Assembling 13amp switched sockets wired in ring final circuit

Task A Practical task

Candidate guidance

To complete this task you must assemble a surface ring final circuit with 13 amp switched socket outlets on a wooden surface to the specification in the diagram labelled Fig.1 provided. You will need to set up your work area, work in a safe manner at all times and should leave your work area and tools clean and tidy. You will also be asked to complete a tools and equipment and a materials checklist. These will be given to you by your assessor to be completed before starting the practical task.

You must:

- Identify and wear correct PPE for this task
- Identify and select the tools and equipment for this task
- Identify and select materials to complete the task
- Assemble 13amp switched sockets wired in ring final circuit
- Inspect completed work
- Use meter to test continuity of circuit
- Be able to setup and maintain a clean and safe working environment

Your target time is **3 hours** to complete this task.

This task can be achieved at Pass, Merit or Distinction.

Pass +/-15mm

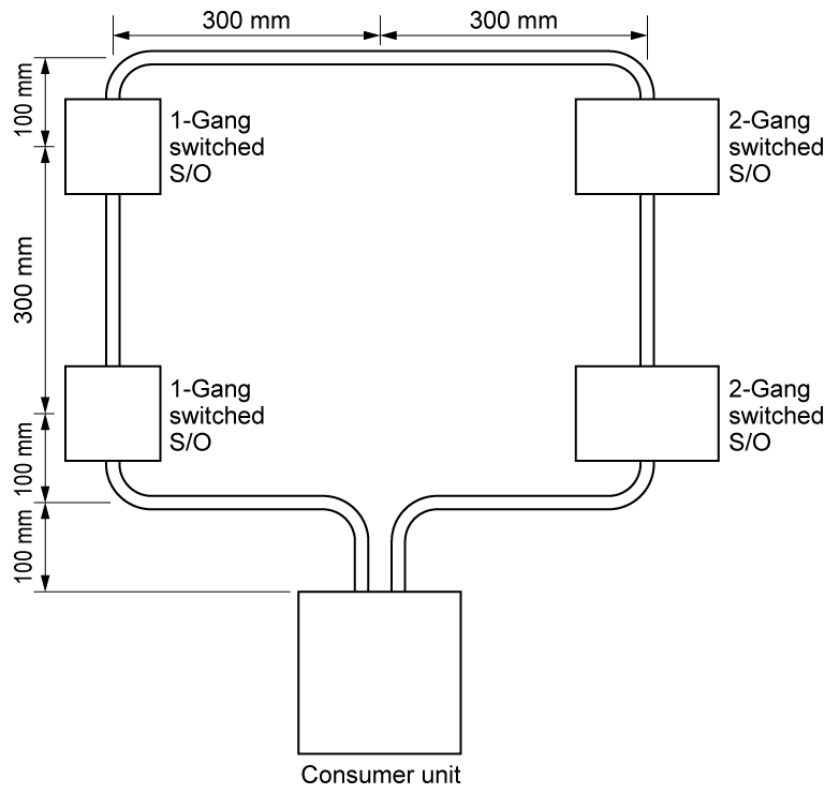
Merit +/-10mm

Distinction +/-5mm

You will also be asked four underpinning knowledge questions. Question one must be answered correctly and you must achieve 6 out of 8 marks from questions two, three and four to achieve a pass.

Task A

Fig 1.



Please note - All terminations should be to industry standard.

Assignment 133 Assembling 13amp switched sockets wired in ring final circuit



Task A Marking criteria

Candidate name _____

Assessor name _____

Centre name _____

To pass the assignment, candidates are required to complete each task to the minimum standard indicated below. All criteria for each grade must be achieved to claim that grade.

The candidate has:	Pass	Merit	Distinction
Used appropriate Personal Protective Equipment (PPE)	<input type="checkbox"/>		
Identified and selected materials required	<input type="checkbox"/>		
Identified and selected tools and equipment required	<input type="checkbox"/>		
Assembled 13amp switched sockets wired in ring final circuit to specification and to tolerances	<input type="checkbox"/> +/- 15mm	<input type="checkbox"/> +/- 10mm	<input type="checkbox"/> +/- 5mm
Used a meter to test continuity of circuits	<input type="checkbox"/>		
Demonstrated safe setup of the work area	<input type="checkbox"/>		
Maintained a clean and safe working area following health and safety guidelines	<input type="checkbox"/>		
Cleared work area of surplus materials and debris on completion of the job	<input type="checkbox"/>		
Cleaned all tools and equipment ready for re-use	<input type="checkbox"/>		

Assignment passed? **Yes / No** **Final grade Pass/Merit/Distinction**

Assessor signature _____

Date _____

Assignment 134 Constructing PVC wiring systems

Task A

Practical task

Candidate guidance

To complete this task you will fabricate and mount PVC trunking and conduit to wood surface as shown in the diagram labelled fig 1 below. You will need to set up your work area, work in a safe manner at all times and should leave your work area and tools clean and tidy. You will also be asked to complete a tools and equipment and a materials checklist. These will be given to you by your assessor to be completed before starting the practical task.

You must:

- Identify and wear correct PPE for this task
- Identify and select the tools and equipment for this task
- Identify and select materials to complete the task
- Fabricate and mount PVC trunking and conduit to wood surface
- Be able to setup and maintain a clean and safe working environment

Your target time is **3 hours** to complete this task.

This task can be achieved at Pass, Merit or Distinction.

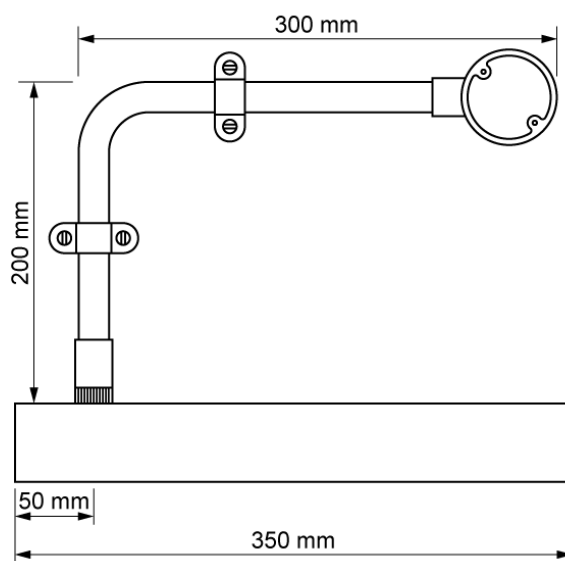
Pass +/-15mm

Merit +/-10mm

Distinction +/-5mm

You will also be asked four underpinning knowledge questions. Question one must be answered correctly and you must achieve 6 out of 8 marks from questions two, three and four to achieve a pass.

Fig 1.



Assignment 134
Task A

Constructing PVC wiring systems
Marking criteria



Candidate name _____

Assessor name _____

Centre name _____

To pass the assignment, candidates are required to complete each task to the minimum standard indicated below. All criteria for each grade must be achieved to claim that grade.

The candidate has:	Pass	Merit	Distinction
Used appropriate Personal Protective Equipment (PPE)	<input type="checkbox"/>		
Identified and selected materials required	<input type="checkbox"/>		
Identified and selected tools and equipment required	<input type="checkbox"/>		
Fabricated PVC trunking correctly	<input type="checkbox"/>		
Assembled and mounted PVC trunking correctly	<input type="checkbox"/>		
Fabricated PVC conduit correctly	<input type="checkbox"/>		
Assembled and mounted PVC conduit correctly	<input type="checkbox"/>		
Constructed PVC wiring system to tolerances	<input type="checkbox"/> +/- 15mm	<input type="checkbox"/> +/- 10mm	<input type="checkbox"/> +/- 5mm

Assignment passed? **Yes / No** **Final grade Pass/Merit/Distinction**

Assessor signature _____

Date _____

Candidate guidance

To complete this task you will fabricate a 90° bend and running coupler and terminate to a pre-fixed stop end box fixed to a wood surface as shown in the diagram labelled fig 1 below. You will need to set up your work area, work in a safe manner at all times and should leave your work area and tools clean and tidy. You will also be asked to complete a tools and equipment and a materials checklist. These will be given to you by your assessor to be completed before starting the practical task.

You must:

- Identify and wear correct PPE for this task
- Identify and select the tools and equipment for this task
- Identify and select materials to complete the task
- Fabricate a 90° bend and running coupler, including manufacturing a nipple.
- Terminate to a pre-fixed stop end box fixed to a wood surface
- Be able to setup and maintain a clean and safe working environment

Your target time is **2 hours** to complete this task.

This task can be achieved at Pass, Merit or Distinction.

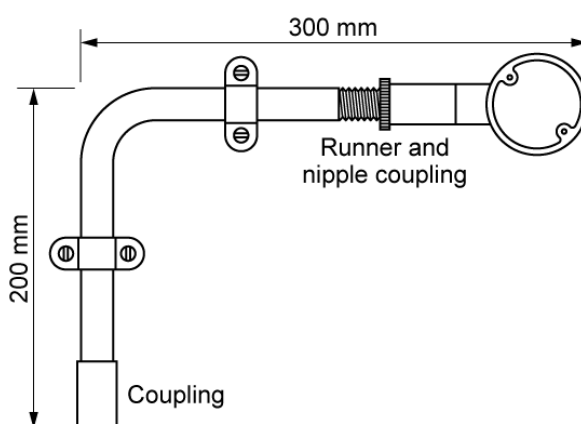
Pass +/-15mm

Merit +/-10mm

Distinction +/-5mm

You will also be asked three underpinning knowledge questions. Question one must be answered correctly and you must achieve 5 out of 7 marks from questions two and three to achieve a pass.

Fig 1.



Assignment 135

Cutting bending joining and threading conduit



Task A

Marking criteria

Candidate name _____

Assessor name _____

Centre name _____

To pass the assignment, candidates are required to complete each task to the minimum standard indicated below. All criteria for each grade must be achieved to claim that grade.

The candidate has:	Pass	Merit	Distinction
Used appropriate Personal Protective Equipment (PPE)	<input type="checkbox"/>		
identified and selected materials required	<input type="checkbox"/>		
Identified and selected tools and equipment required	<input type="checkbox"/>		
Fabricated steel conduit correctly	<input type="checkbox"/>		
Assembled and mounted steel conduit correctly	<input type="checkbox"/>		
Fabricated a 90° bend and running coupler and manufacture nipple and terminate to a pre fixed stop end box fixed on a wood surface to tolerances	<input type="checkbox"/> +/- 15mm	<input type="checkbox"/> +/- 10mm	<input type="checkbox"/> +/- 5mm

Assignment passed? **Yes / No** **Final grade Pass/Merit/Distinction**

Assessor signature _____

Date _____

Candidate guidance

To complete this task you must install a one-way lighting circuit using twin and CPC, PVC insulated cable, clipped direct, controlling one light as shown in the diagram labelled fig.1. All accessories should be surface mounted. The light will be a pendant type.

The dimensions will be set by your examiner and will be explained to you before starting the assessment.

You will need to set up your work area, work in a safe manner at all times and should leave your work area and tools clean and tidy. You will also be asked to complete a tools and equipment and a materials checklist. These will be given to you by your assessor to be completed before starting the practical task.

You must:

- Identify and wear correct PPE for this task
- Identify and select the tools and equipment for this task
- Identify and select materials to complete the task
- install a one-way lighting circuit using twin and CPC, PVC insulated cable, clipped direct, controlling one light as shown on the diagram labelled Fig.1 provided
- Be able to setup and maintain a clean and safe working environment
- Safely inspect and test the completed circuit for continuity and insulation resistance using the form provided.

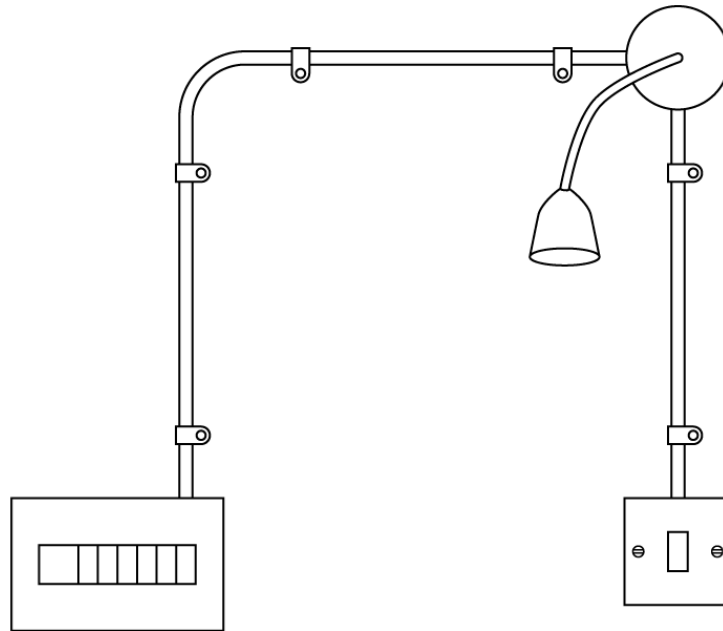
Your target time is **4 hours** to complete this task.

This task can be achieved at Pass only.

You will also be asked four underpinning knowledge questions. Question one must be answered correctly and you must achieve 8 out of 10 marks from questions two, three and four to achieve a pass.

Assignment 136 Installing one way lighting circuit

Fig 1.



Assignment 136 Installing one way lighting circuit



Task A

Marking criteria

Candidate name _____

Assessor name _____

Centre name _____

To pass the assignment, candidates are required to complete each task to the minimum standard indicated below.

The candidate has:	Pass	Merit	Distinction
Used appropriate Personal Protective Equipment (PPE)	<input type="checkbox"/>		
identified and selected materials required	<input type="checkbox"/>		
Identified and selected tools and equipment required	<input type="checkbox"/>		
Fitted accessories and cables correctly	<input type="checkbox"/>		
Connected accessories correctly	<input type="checkbox"/>		
Satisfactorily completed testing	<input type="checkbox"/>		
On completion left the work area in a safe and clean condition	<input type="checkbox"/>		
Satisfactorily completed the exercise to industry standard	<input type="checkbox"/>		

Assignment passed? **Yes / No**

Assessor signature _____

Date _____

To complete this task you must install a two-way lighting circuit using twin and CPC, PVC insulated cable, three core and CPC, PVC insulated cable, clipped direct, controlling one light as shown in the diagram labelled fig.1. All accessories should be surface mounted. The light will be a pendant type.

The dimensions will be set by your examiner and will be explained to you before starting the assessment.

You will need to set up your work area, work in a safe manner at all times and should leave your work area and tools clean and tidy. You will also be asked to complete a tools and equipment and a materials checklist. These will be given to you by your assessor to be completed before starting the practical task.

You must:

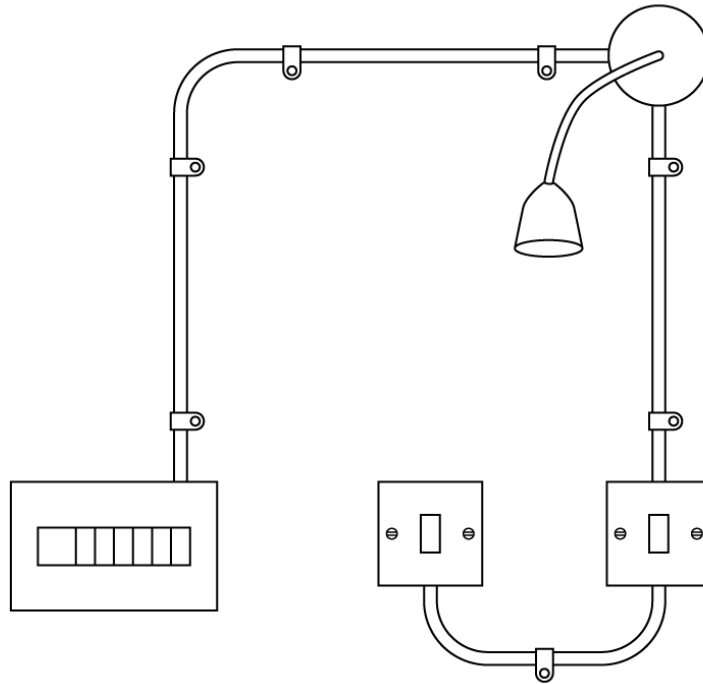
- Identify and wear correct PPE for this task
- Identify and select the tools and equipment for this task
- Identify and select materials to complete the task
- Install a two-way lighting circuit using twin and CPC, PVC insulated cable, three core and CPC, PVC insulated cable, clipped direct, controlling one light as shown on the diagram labelled Fig.1 provided
- Be able to setup and maintain a clean and safe working environment
- Safely inspect and test the completed circuit for continuity and insulation resistance using the form provided.

Your target time is **4 hours** to complete this task.

This task can be achieved at Pass only.

You will also be asked four underpinning knowledge questions. Question one must be answered correctly and you must achieve 8 out of 10 marks from questions two, three and four to achieve a pass.

Figure 1



Candidate guidance

To complete this task you must successfully decommission a radiator by isolating it, draining it down and then removing it.

You then will be asked by your assessor to refit the radiator and refill it, all this work should be done as if you are working in somebody's home. You will need to set up your work area, work in a safe manner at all times and should leave your work area and tools clean and tidy. You will also be asked to complete a tools and equipment and a materials checklist. These will be given to you by your assessor to be completed before starting the practical task.

You must;

- Identify and wear the correct PPE for this task
- Identify and select the tools and equipment for the task
- Identify and select all the materials to complete the task
- Isolate the radiator, drain it down and then remove it
- Re-fit the radiator and refill.
- Be able to setup and maintain a clean and safe working environment

The installation should be water tight and all air removed from the radiator

Your target time is **3 hours** to complete this task,

This task can only achieve a Pass

You will also be asked three underpinning knowledge questions. Question one must be answered correctly and you must achieve 3 out of 4 marks from questions two and three to achieve a pass.

Candidate name _____

Assessor name _____

Centre name _____

To pass the assignment, candidates are required to complete each task to the minimum standard indicated below.

The candidate has:	Pass	Merit	Distinction
Used appropriate personal protective equipment (PPE)	<input type="checkbox"/>		
Identified and selected tools /equipment required	<input type="checkbox"/>		
Identified materials needed to correctly do the task	<input type="checkbox"/>		
Successfully isolated and drained down the radiator	<input type="checkbox"/>		
Successfully re-fitted and refilled the radiator ensuring it is free from air	<input type="checkbox"/>		
Demonstrated safe setup of the work area	<input type="checkbox"/>		
Maintained a clean and safe working area and has followed health and safety guidelines	<input type="checkbox"/>		
Cleared work area of surplus materials	<input type="checkbox"/>		
Returned all tools and equipment	<input type="checkbox"/>		

Assignment passed? **Yes / No**

Assessor signature _____

Date _____

Candidate guidance

To complete this task you must construct a copper framework using non-manipulative fittings to the specification in the diagrams provided in Fig.1 You will need to set up your work area, work in a safe manner at all times and should leave your work area and tools clean and tidy. You will also be asked to complete a tools and equipment and a materials checklist. These will be given to you by your assessor to be completed before starting the practical task.

You must;

- Identify and wear the correct PPE for this task
- Identify and select the tools and equipment for the task
- Identify and select all fittings and materials to complete the task
- Prepare and Join copper pipe using the correct methods
- Be able to setup and maintain a clean and safe working environment

The framework should be water tight and pressure tested to 3 Bar and within the given tolerances

Your target time is **2 hours** to complete this task.

This task can only achieve at Pass and the tolerance is +/-8mm

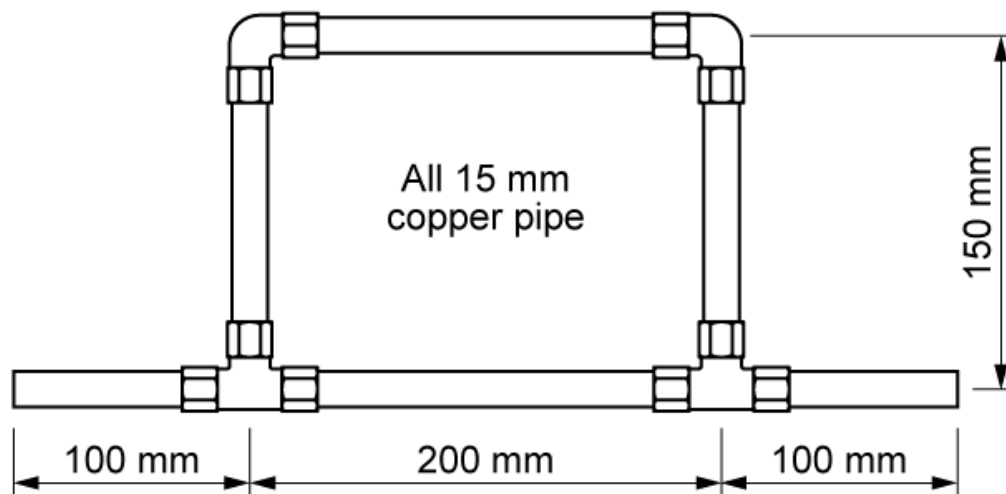
You will also be asked three underpinning knowledge questions. Question one must be answered correctly and you must achieve 5 out of 7 marks from questions two and three to achieve a pass.

Assignment 010 Working with non-manipulative fittings

Task A

Construct a copper framework using non-manipulative fittings

Fig1



Assignment 010 Working with non-manipulative fittings

Task A

Marking criteria



Candidate name _____

Assessor name _____

Centre name _____

To pass the assignment, candidates are required to complete each task to the minimum standard indicated below.

The candidate has:	Pass	Merit	Distinction
Used appropriate personal protective equipment (PPE)	<input type="checkbox"/>		
Identified and selected tools /equipment required	<input type="checkbox"/>		
Identified and selected fittings/materials correctly	<input type="checkbox"/>		
Built Framework to tolerances	<input type="checkbox"/> +/-8mm		
Pressure tested framework to 3 bar without it leaking	<input type="checkbox"/>		
Demonstrated safe setup of the work area	<input type="checkbox"/>		
Maintained` a clean and safe working area and has followed health and safety guidelines	<input type="checkbox"/>		
Cleared work area of surplus materials	<input type="checkbox"/>		

Assignment passed? **Yes / No**

Assessor signature _____

Date _____

Candidate guidance

To complete this task you must construct a copper framework to the specification in the diagrams provided in Fig.1 You will need to set up your work area, work in a safe manner at all times and should leave your work area and tools clean and tidy. You will also be asked to complete a tools and equipment and a materials checklist. These will be given to you by your assessor to be completed before starting the practical task.

You must;

- Identify and wear the correct PPE for this task
- Identify and select the tools and equipment for the task
- Identify and select all fittings and materials to complete the task
- Bend copper pipe to the given angle
- Join copper pipe using the correct methods
- Be able to setup and maintain a clean and safe working environment

The framework should be water tight and pressure tested to 3 Bar and within the given tolerances

Your target time is **3 hours** to complete this task.

This task can be achieved at Pass, Merit or Distinction to tolerances

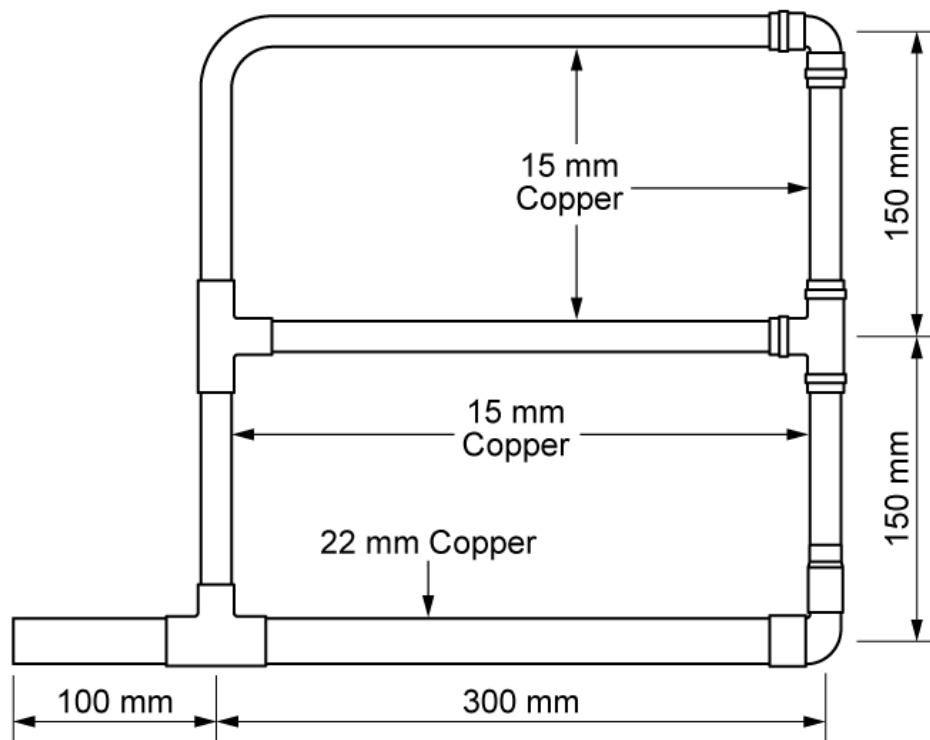
Pass +/-8mm

Merit +/-6mm

Distinction +/-3mm

You will also be asked four underpinning knowledge questions. Question one must be answered correctly and you must achieve 5 out of 7 marks from questions two, three and four to achieve a pass.

Fig1.



Assignment 128 Bending and jointing copper pipe

Task A Marking criteria

Candidate name _____

Assessor name _____

Centre name _____

To pass the assignment, candidates are required to complete each task to the minimum standard indicated below. All criteria for each grade must be achieved to claim that grade.

The candidate has:	Pass	Merit	Distinction
Identified and Used appropriate personal protective equipment (PPE)	<input type="checkbox"/>		
Identified and selected tools /equipment required	<input type="checkbox"/>		
Identified and selected fittings/materials correctly	<input type="checkbox"/>		
Produced the bend to correct angle without visible defects	<input type="checkbox"/>		
Cut and joined pipework without defects	<input type="checkbox"/>		
Built Framework to tolerances	<input type="checkbox"/> +/-8mm	<input type="checkbox"/> +/-6mm	<input type="checkbox"/> +/-3mm
Pressure tested framework to 3 bar without it leaking	<input type="checkbox"/>		
Demonstrated safe setup of the work area	<input type="checkbox"/>		
Maintained` a clean and safe working area and has followed health and safety guidelines	<input type="checkbox"/>		
Cleared work area of surplus materials	<input type="checkbox"/>		
Returned all tools and equipment	<input type="checkbox"/>		

Assignment passed? Yes / No **Final Grade** Pass/Merit/Distinction

Assessor signature _____

Date _____

Candidate guidance

To complete this task you must install and connect the hot and cold water pipework and the waste system to either a kitchen sink or a basin to the specification in the diagrams provided in Fig.1. The hot and cold pipework installation must be completed in copper pipe. You will need to set up your work area, work in a safe manner at all times and should leave your work area and tools clean and tidy. You will also be asked to complete a tools and equipment and a materials checklist. These will be given to you by your assessor to be completed before starting the practical task.

You must;

- Identify and wear the correct PPE for this task
- Identify and select the tools and equipment for the task
- Identify and select all fittings and materials to complete the task
- Install hot and cold water pipework to an existing appliance
- Install the waste trap and waste pipework
- Be able to setup and maintain a clean and safe working environment

The installation should be water tight and within the given tolerances

Your target time is **6 hours** to complete this task

This task can be achieved at Pass, Merit or Distinction.

Pass +/-8mm

Merit +/-6mm

Distinction +/-3mm

You will also be asked four underpinning knowledge questions. Question one must be answered correctly and you must achieve 4 out of 6 marks from questions two, three and four to achieve a pass.

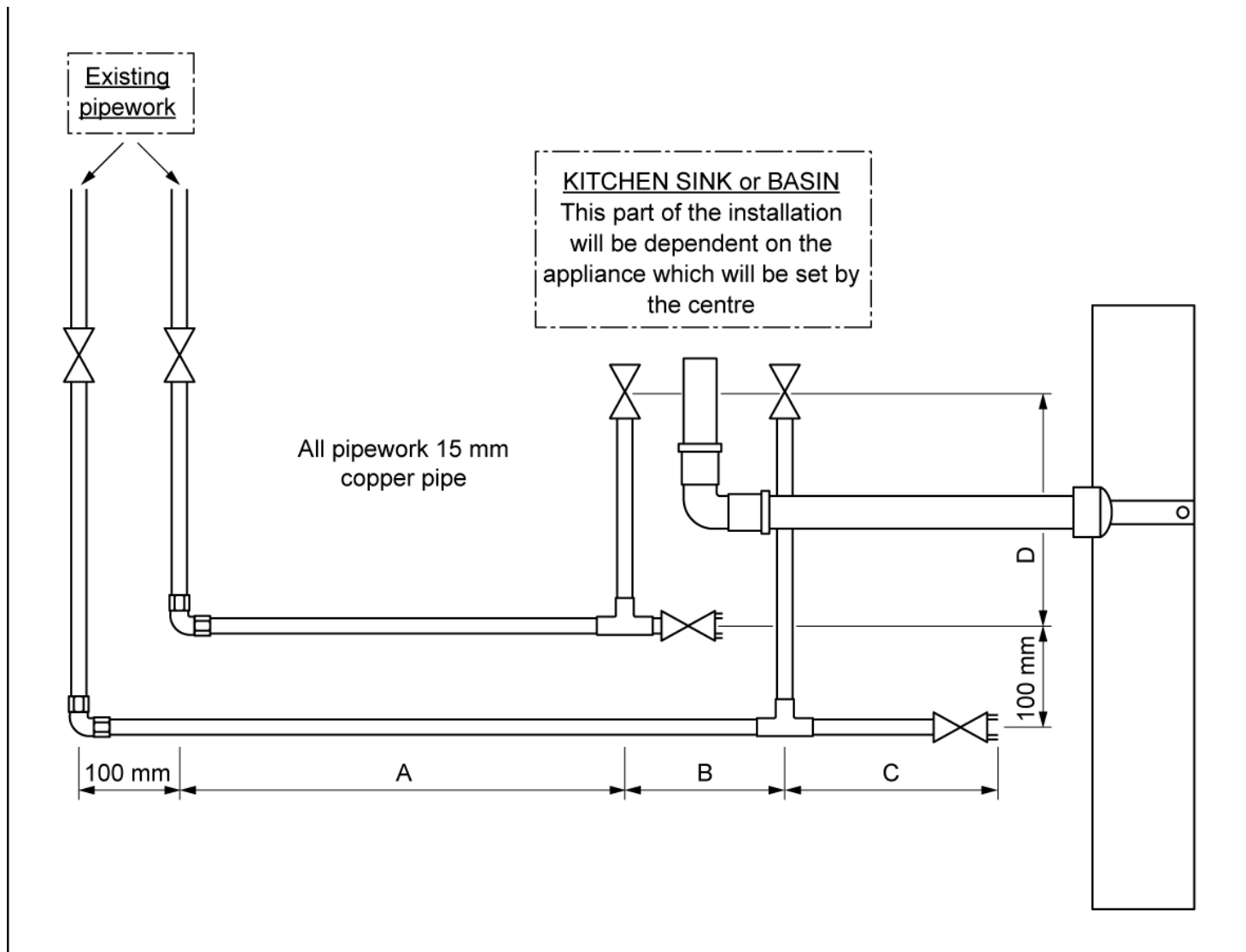
Assignment 129

Connecting pipes and fittings to appliances

Task A

Installation of pipework to an appliance and associated fittings

Fig1



Assignment 129

Connecting pipes and fittings to appliances



Task A

Marking criteria

Candidate name _____

Assessor name _____

Centre name _____

To pass the assignment, candidates are required to complete each task to the minimum standard indicated below. All criteria for each grade must be achieved to claim that grade.

The candidate has:	Pass	Merit	Distinction
Used appropriate personal protective equipment (PPE)	<input type="checkbox"/>		
Identified and selected tools /equipment required	<input type="checkbox"/>		
Identified and selected fittings/materials correctly	<input type="checkbox"/>		
Installed all pipework to industry standard and within tolerances	<input type="checkbox"/> +/-8mm	<input type="checkbox"/> +/-6mm	<input type="checkbox"/> +/-3mm
Ensured pipework is watertight	<input type="checkbox"/>		
Demonstrated safe setup of the work area	<input type="checkbox"/>		
Maintained` a clean and safe working area and has followed health and safety guidelines	<input type="checkbox"/>		
Cleared work area of surplus materials	<input type="checkbox"/>		
Returned all tools and equipment	<input type="checkbox"/>		

Assignment passed? Yes / No **Final Grade** Pass/Merit/Distinction

Assessor signature _____

Date _____

Candidate guidance

To complete this task you must construct a combined framework to the specification in the diagrams provided in Fig.1 You will need to set up your work area, work in a safe manner at all times and should leave your work area and tools clean and tidy. You will also be asked to complete a tools and equipment and a materials checklist. These will be given to you by your assessor to be completed before starting the practical task.

You must;

- Identify and wear the correct PPE for this task
- Identify and select the tools and equipment for the task
- Identify and select all fittings and materials to complete the task
- Bend pipe to the given angle
- Join pipe using the correct methods
- Be able to setup and maintain a clean and safe working environment

The framework should be water tight and pressure tested to 3 Bar and within the given tolerances

Your target time is **8 hours** to complete this task.

This task can be achieved at Pass, Merit or Distinction.

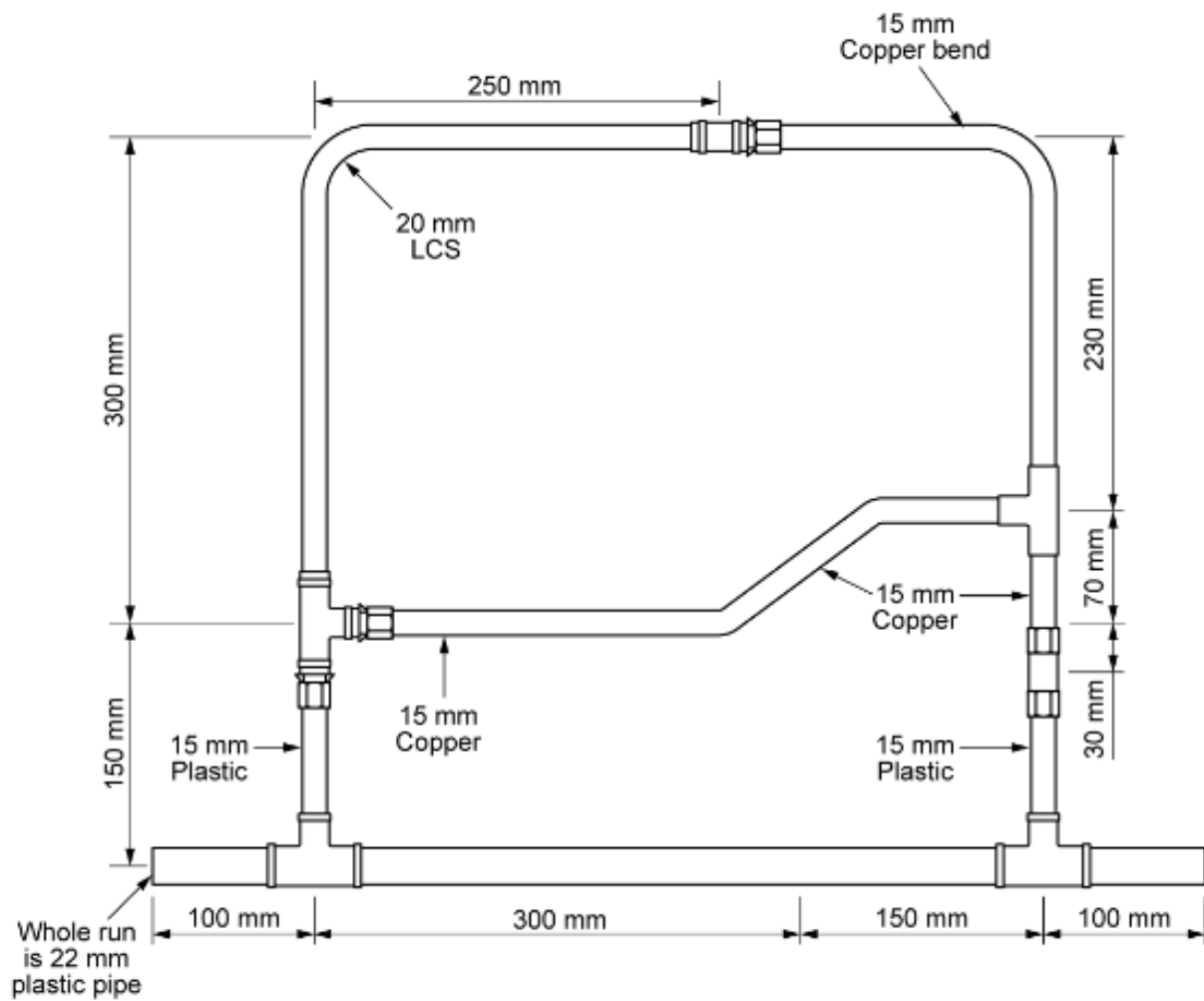
Pass +/-8mm

Merit +/-6mm

Distinction +/-3mm

You will also be asked three underpinning knowledge questions. Question one must be answered correctly and you must achieve 3 out of 4 marks from questions two and three to achieve a pass.

Fig1.



Candidate name _____

Assessor name _____

Centre name _____

To pass the assignment, candidates are required to complete each task to the minimum standard indicated below. All criteria for each grade must be achieved to claim that grade.

The candidate has:	Pass	Merit	Distinction
Used appropriate personal protective equipment (PPE)	<input type="checkbox"/>		
Identified and selected tools /equipment required	<input type="checkbox"/>		
Identified and selected fittings/materials correctly	<input type="checkbox"/>		
Built Framework to tolerances	<input type="checkbox"/> +/-8mm	<input type="checkbox"/> +/-6mm	<input type="checkbox"/> +/-3mm
Pressure tested framework to 3 bar without it leaking	<input type="checkbox"/>		
Demonstrated safe setup of the work area	<input type="checkbox"/>		
Maintained` a clean and safe working area and has followed health and safety guidelines	<input type="checkbox"/>		
Cleared work area of surplus materials	<input type="checkbox"/>		
Returned all tools and equipment	<input type="checkbox"/>		

Assignment passed? Yes / No **Final Grade** Pass/Merit/Distinction

Assessor signature _____

Date _____

Candidate guidance

To complete this task you must install a rain water guttering system to the specification in the diagrams provided in Fig.1 You will need to set up your work area, work in a safe manner at all times and should leave your work area and tools clean and tidy. You will also be asked to complete a tools and equipment and a materials checklist. These will be given to you by your assessor to be completed before starting the practical task.

You must;

- Identify and wear the correct PPE for this task
- Identify and select the tools and equipment for the task
- Identify and select all fittings and materials to complete the task
- Install guttering to correct gradient
- Join and install rain water guttering using the correct methods
- Be able to setup and maintain a clean and safe working environment

The installation should be water tight and a performance test should be completed to ensure that it works correctly

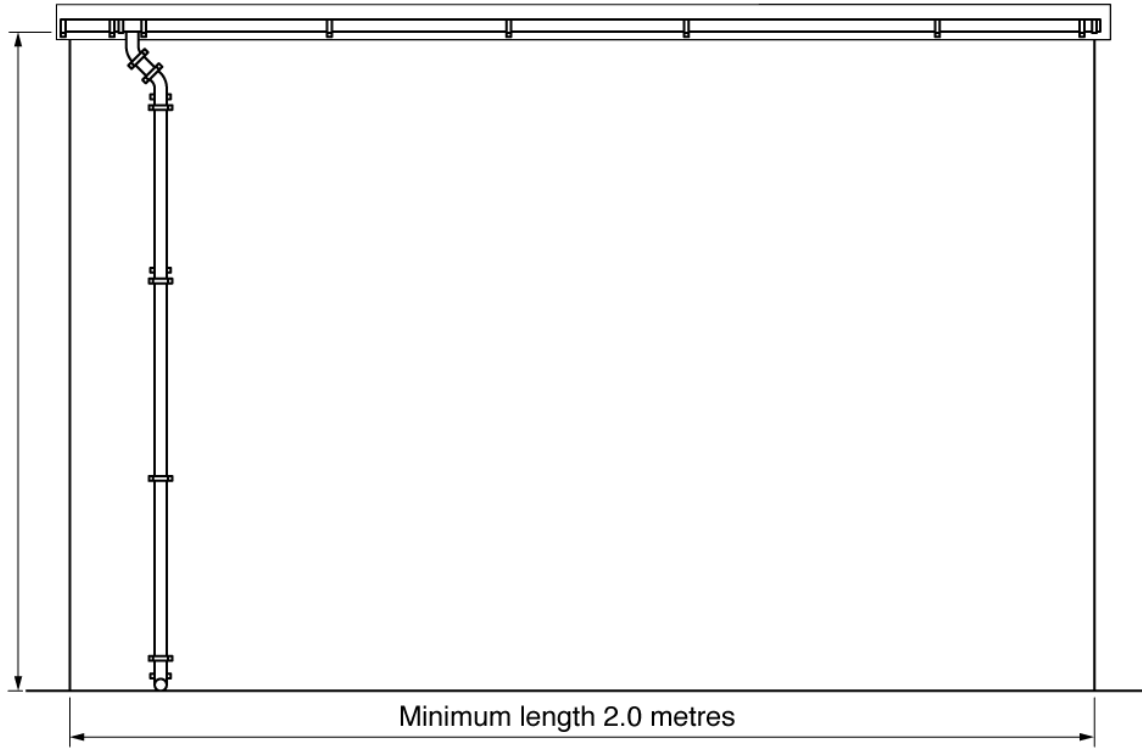
Your target time is **3 hours** to complete this task,

This task can be achieved at Pass only to tolerances +/-10mm

You will also be asked three underpinning knowledge questions. Question one must be answered correctly and you must achieve 2 out of 3 marks from questions two and three to achieve a pass.

Assignment 131
Task A

Installing rain water goods
Install rain water guttering system



Assignment 131 Installing rain water goods

Task A

Marking criteria



Candidate name _____

Assessor name _____

Centre name _____

To pass the assignment, the candidate is required to complete each task to the minimum standard indicated below.

The candidate has:	Pass	Merit	Distinction
Used appropriate personal protective equipment (PPE)	<input type="checkbox"/>		
Identified and selected tools /equipment required	<input type="checkbox"/>		
Identified and selected fittings/materials correctly	<input type="checkbox"/>		
Installed the guttering to correct length	<input type="checkbox"/> +/-10mm		
Completed a performance test on the guttering	<input type="checkbox"/>		
Demonstrated safe setup of the work area	<input type="checkbox"/>		
Maintained` a clean and safe working area and has followed health and safety guidelines	<input type="checkbox"/>		
Cleared work area of surplus materials	<input type="checkbox"/>		
Returned all tools and equipment	<input type="checkbox"/>		

Assignment passed? Yes / No

Assessor signature _____

Date _____

Assignment 132 Working with low carbon steel pipe and fittings

Task A

Practical task

Candidate guidance

To complete this task you must construct a low carbon steel pipe framework to the specification in the diagram provided in Fig.1 You will need to set up your work area, work in a safe manner at all times and should leave your work area and tools clean and tidy. You will also be asked to complete a tools and equipment and a materials checklist. These will be given to you by your assessor to be completed before starting the practical task.

You must;

- Identify and wear the correct PPE for this task
- Identify and select the tools and equipment for the task
- Identify and select all fittings and materials to complete the task
- Join, cut and thread pipe using the correct methods
- Be able to setup and maintain a clean and safe working environment

The framework should be water tight and pressure tested to 3 Bar and within the given tolerances

Your target time is **6 hours** to complete this task,

This task can be achieved at Pass, Merit or Distinction.

Pass +/-8mm

Merit +/-6mm

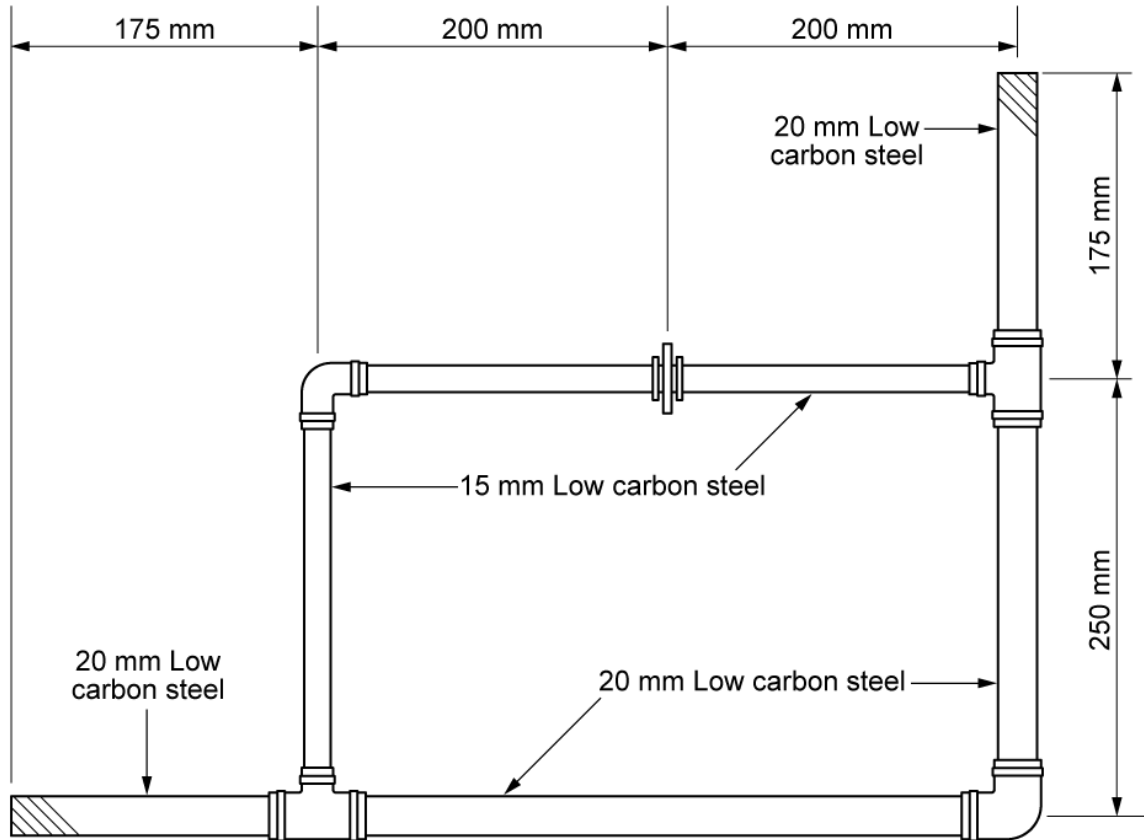
Distinction +/-3mm

You will also be asked three underpinning knowledge questions. Question one must be answered correctly and you must achieve 4 out of 6 marks from questions two, three and four to achieve a pass.

Assignment 132 Working with low carbon steel pipe and fittings

Task A

Construct a low carbon steel pipe framework



Assignment 132 Working with low carbon steel pipe and fittings



Task A

Marking criteria

Candidate name _____

Assessor name _____

Centre name _____

To pass the assignment, candidates are required to complete each task to the minimum standard indicated below. All criteria for each grade must be achieved to claim that grade.

The candidate has:	Pass	Merit	Distinction
Used appropriate personal protective equipment (PPE)	<input type="checkbox"/>		
Identified and selected tools /equipment required	<input type="checkbox"/>		
Identified and selected fittings/materials correctly	<input type="checkbox"/>		
Built Framework to tolerances	<input type="checkbox"/> +/-8mm	+/-6mm	+/-3mm
Pressure tested framework to 3 bar without it leaking	<input type="checkbox"/>		
Demonstrated safe setup of the work area	<input type="checkbox"/>		
Maintained` a clean and safe working area and has followed health and safety guidelines	<input type="checkbox"/>		
Cleared work area of surplus materials	<input type="checkbox"/>		
Returned all tools and equipment	<input type="checkbox"/>		

Assignment passed? Yes / No **Final Grade** Pass/Merit/Distinction

Assessor signature _____

Date _____

Unit feedback and forward planning form

Feedback and action planning form



Unit and task number	
Candidate name	

Task reference	Unit feedback		

Task reference	Action plan	Target date	Achievement date

Useful contacts

UK candidates

General qualification information

T: +44 (0)844 543 0033

E: candidatesupport@cityandguilds.com

International candidates

General qualification information

T: +44 (0)844 543 0033

F: +44 (0)20 7294 2413

E: **intcg@cityandguilds.com**

Centres

Exam entries, Registrations/enrolment, Certificates, Invoices, Missing or late exam materials, Nominal roll reports, Results

T: +44 (0)844 543 0000

F: +44 (0)20 7294 2413

E: **centresupport@cityandguilds.com**

Single subject qualifications

Exam entries, Results, Certification, Missing or late exam materials, Incorrect exam papers, Forms request (BB, results entry), Exam date and time change

T: +44 (0)844 543 0000

F: +44 (0)20 7294 2413

F: +44 (0)20 7294 2404 (BB forms)

E: **singlesubjects@cityandguilds.com**

International awards

Results, Entries, Enrolments, Invoices, Missing or late exam materials, Nominal roll reports

T: +44 (0)844 543 0000

F: +44 (0)20 7294 2413

E: **intops@cityandguilds.com**

Walled Garden

Re-issue of password or username, Technical problems, Entries, Results, e-assessment, Navigation, User/menu option, Problems

T: +44 (0)844 543 0000

F: +44 (0)20 7294 2413

E: **walledgarden@cityandguilds.com**

Employer

Employer solutions, Mapping, Accreditation, Development Skills, Consultancy

T: +44 (0)121 503 8993

E: **business_unit@cityandguilds.com**

Publications

Logbooks, Centre documents, Forms, Free literature

T: +44 (0)844 543 0000

F: +44 (0)20 7294 2413

If you have a complaint, or any suggestions for improvement about any of the services that City & Guilds provides, email: feedbackandcomplaints@cityandguilds.com

Published by City & Guilds
1 Giltspur Street
London
EC1A 9DD
T +44 (0)844 543 0000
F +44 (0)20 7294 2413
www.cityandguilds.com

City & Guilds is a registered charity
established to promote education
and training