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# **LEVEL 1 & LEVEL 2 MARKING SCHEME**

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**SUMMER 2019**

**LEVEL 1 & LEVEL 2  
CONSTRUCTING THE BUILT ENVIRONMENT - UNIT 1  
5909UB0-1**

## **INTRODUCTION**

This marking scheme was used by WJEC for the 2019 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

## LEVEL 1 & 2 CONSTRUCTING THE BUILT ENVIRONMENT

### SUMMER 2019 MARK SCHEME

#### Question 1

(a) (2)

All responses are each one mark (max 2):

1. Children/people could enter and fall from height
2. Children/people could enter and slip
3. Children/people could enter and drown
4. Children/people could enter and catch a disease/become ill from contaminated water
5. Children/people could enter and be injured on or using machinery/equipment
6. Accept vandalism/theft of Machinery and equipment
7. Any other reasonable response

(b) (4)

Acceptable responses include (each 2 marks – must be a description):

1. Erect secure boundary fencing – this would make it more difficult for people to enter the site – at the moment the boundary is too low.
2. Employ on site security to deter people from entering the site – signage should indicate the presence of security so as to deter people from entering.
3. Numerous and very visible warning signs to highlight the fact the site is dangerous and that no one should enter.
4. Pump out the water which would prevent anyone who enters from drowning.
5. Complete works as soon as possible so as to remove many of the dangers.
6. Install CCTV and highlight its presence by visible signage – this may deter people from entering the site.
7. Any reasonable response (described).

One mark for an appropriate identification of each control measure.

## Question 2

(a) (2)

All responses are each one mark (max 2):

- 1 Theft of materials, tools and equipment
- 2 Vandalism of tools, equipment and the building
- 3 Individually identified items that could be stolen or damaged ie theft of computer equipment and theft of site data
- 4 Any reasonable response (described)

(b) (4)

Acceptable responses include (each 2 marks – must be a description):

1. install shutters over the doors and windows – this would make it more difficult for people to enter the building.
2. install temporary floodlights – this would light up the area and make anyone trying to enter the building more visible.
3. employ on-site security to deter people from entering the building – signage should indicate the presence of security so as to deter people from entering.
4. install CCTV and highlight its presence by visible signage – this may deter people from entering the building.
5. any reasonable response (described).

Note: 1 mark for identification only.

## Question 3

(a) (2)

The main risk is fire typical responses could include:

- 1 The hob, oven and microwave all have the potential to catch alight and the fire could spread throughout the Portakabin (2).
- 2 There is a severe risk of fire resulting from the untested equipment – this could harm staff and visitors – risks could be from the fire itself and smoke inhalation. (2)
- 3 There is a risk of electrocution to a user of the faulty equipment. (2)

(b) (2)

Accept Dry powder, foam or CO<sub>2</sub> – acceptable reasons for each is that, unlike other types of extinguisher, they do not react with electrical equipment/conduct electricity thereby they are safer. (2)

(c) Dry powder, foam or CO<sub>2</sub>, not used above (1)

#### Question 4

(a) (2)

COSHH (1) and HASAWA (1)

(b) (2)

Acceptable control measures include:

- 1 Remove the cylinders and store in a secure controlled area. (2)
- 2 Install signage for staff and visitors to be aware of the potential dangers. (2)
- 3 If essential cylinders are stored here, then re-site canteen to remove the greater risk of fire from cooking equipment. (2)
- 4 Any other reasonable response (described).

(c) (2)

The HSE are likely to (max 2):

- 1 Close this site accommodation area. (1)
- 2 Issue an improvement notice to give the company time to rectify the safety issues. (1)
- 3 May chose to prosecute. (1)
- 4 Any other reasonable response

#### Question 5

(a) (3)

Green (1) oblong shaped (1) sign containing the words 'Fire Exit' or 'Emergency Exit' (1) Do not obstruct this exit (1) (Maximum number of marks 3).

(b) (3)

Green (1) oblong shaped (1) sign containing the words 'Fire Exit' or 'Emergency Exit' (1) Running man image (1) 'push bar to exit' or push button to exit (1) (Maximum number of marks 3).

#### Question 6

(a) (1)

Close down the site (1)

(b) (2)

The damage to the services generates many potential problems for the staff and public – dangers of explosion, fire and flood. It is safest to close the site and evacuate the area. (2)

## Question 7

(8)

Acceptable responses include (each 2 marks):

'All visitors must report to the site office' – this ensures unsupervised people will not wander on the site and therefore reduces the potential risk (2) this provides to opportunity for required health, safety and security measures to be enforced.

Safety Helmets – this is to minimise the risk of head injuries – these could potentially occur through falling objects or flying debris

Hi visibility clothing – this is to ensure that the worker/visitor is visible at all times – especially in dimly lit areas – by seeing where people are this can reduce the likelihood of injury

Eye protection – this is to minimise the risk of eye injury – this could occur as a result of flying debris, dust, sparks and chemicals

Protective footwear – this is to minimise the risk of foot injury – this could occur as a result of sharp objects under foot and falling objects or materials

No unauthorised persons – This ensures that everyone on site has been authorised and is therefore aware of the site safety regulations, or where visitors are involved, they are accompanied and checked for the correct PPE and only visit safe locations within the site

No children – This is to highlight to children and those responsible for children that the site is unsuitable as a location for play as it is a dangerous environment

Danger men at work – This is to highlight the fact that people are working on the site and that potentially dangerous activities are likely to be taking place which could generate many different possible dangers

Danger deep excavation – This is to highlight to staff and visitors that deep excavations are taking place and that dangers associated with such excavations are present.

**Question 8**

(20)

For all photographs - Report to include (alternative Hazards are acceptable – one only required):

<b>Photograph 1</b>	
<b>Hazard (1)</b>	No edge protection - Falling
<b>Risks (2)</b>	There is a significant risk of falling as without edge protection there is nothing to prevent this happening to the worker.(2) (Risk of dropping tools or materials)
<b>Control measures (2)</b>	Erect a suitable working platform, this will support the worker(2) Provide edge protection to prevent the worker from slipping and falling(2) install safety netting to prevent the tools or materials falling below(2)

<b>Photograph 2</b>	
<b>Hazard (1)</b>	Exposed wires (exposed and untidy wiring not properly secured)
<b>Risks (2)</b>	Electric shock to staff or visitor as the exposed wires may be live. (2) Risk of fire if wires contact each other – creating spark or a short circuit. (2)
<b>Control measures (2)</b>	Isolate the mains, check and re-wire as needed then locate safely in an appropriate and secure back box. (2)

<b>Photograph 3</b>	
<b>Hazard (1)</b>	Machine operating above worker in a highly dangerous manner.
<b>Risks (2)</b>	Machine could fall into the trench crushing the worker – potentially fatal. (2) Machine could induce a collapse of the trench and bury the worker. (2)
<b>Control measures (2)</b>	Training to ensure machine operatives do not carry out such dangerous working practices. (2) Support in the trench would help prevent danger of collapse. (2) Suitable edge protection around the trench to keep vehicles away. (2) Provide a 'Banksman' to be present at all times and prevent such situations occurring. (2)

<b>Photograph 4</b>	
<b>Hazard (1)</b>	Debris and materials present a clear danger of slips, trips and falls.
<b>Risks (2)</b>	Injuries from slips, trips and falls which could be severe. (2)
<b>Control measures (2)</b>	Ensure the work area is made safe and that all debris, materials and any other items are either cleared away or stored in an appropriate and safe location. (2)

### Coverage of content by LO and by question

LO	Mark distribution	AC	Marks	Total
<b>1</b>	12-18	1.1	2	<b>15</b>
		1.2	6	
		1.3	2	
		1.4	5	
<b>2</b>	12-18	2.1	4	<b>14</b>
		2.2	2	
		2.3	8	
<b>3</b>	18-24	3.1	8	<b>19</b>
		3.2	11	
<b>4</b>	6-12	4.1	4	<b>12</b>
		4.2	8	
				<b>60</b>

Question	AC coverage
<b>1</b>	4.1 – 2 marks 4.2 – 4 marks
<b>2</b>	4.1 – 2 marks 4.2 – 4 marks
<b>3</b>	2.2 – 2 marks 1.3 – 2 marks 3.2 – 1 mark
<b>4</b>	1.1 – 2 marks 3.2 – 2 marks 1.4 – 2 marks
<b>5</b>	1.2 – 6 marks
<b>6</b>	1.4 – 3 marks
<b>7</b>	3.1 – 8 marks
<b>8</b>	2.1 – 4 marks 2.3 – 8 marks 3.2 – 8 marks