

Surname	Centre Number	Candidate Number
Other Names		0



## LEVEL 1/2 AWARD

9811/01



S15-9811-01

## CONSTRUCTING THE BUILT ENVIRONMENT

### Unit 1: Safety and Security in Construction

### Paper version of on-screen assessment

A.M. THURSDAY, 18 June 2015

1 hour

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1.	2	
2.	3	
3.	4	
4.	6	
5.	4	
6.	7	
7.	8	
8.	3	
9.	3	
10.	20	
<b>Total</b>	<b>60</b>	

9811  
010001

### INSTRUCTIONS TO CANDIDATES

Questions in this examination are based on the context of *Jones and Jones Building Contractors (JJBC)*, details of which can be found in the introduction.

You are required to answer **all** questions.

Quality of written communication will be assessed in question 5.

Write your answers in the spaces provided in this booklet or as guided by the question.



## Introduction

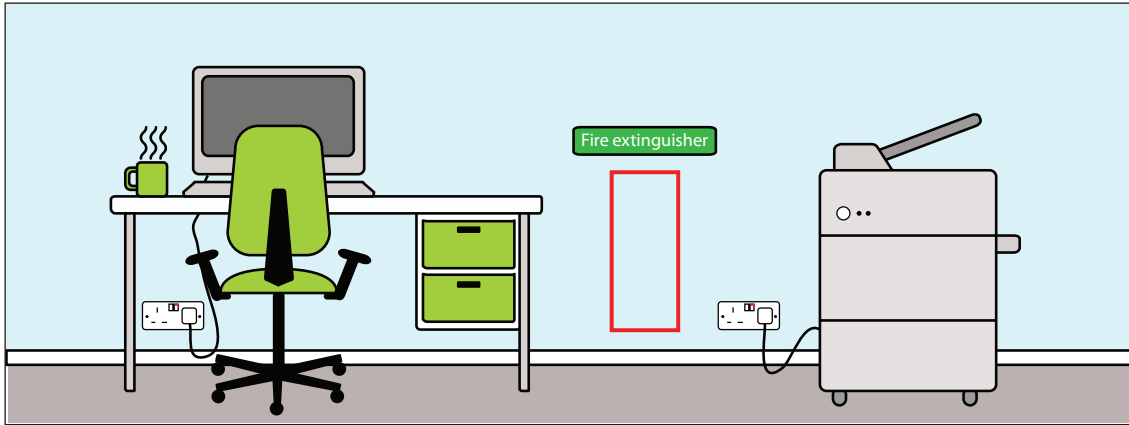


*Jones and Jones Building Contractors (JJBC)* was set up five years ago and has completed many successful construction projects over this period. The new contracts manager, Jonathan Douglas, is very concerned about safety and security issues, in particular, that workers and visitors are kept safe when entering JJBC sites.



Answer **all** the questions in the spaces provided.

1. The most likely cause of fire in the site office shown below is electrical.



- (a) Choose a suitable fire extinguisher for the site office from those shown below. [1]



Water



Dry powder



Foam



Carbon dioxide

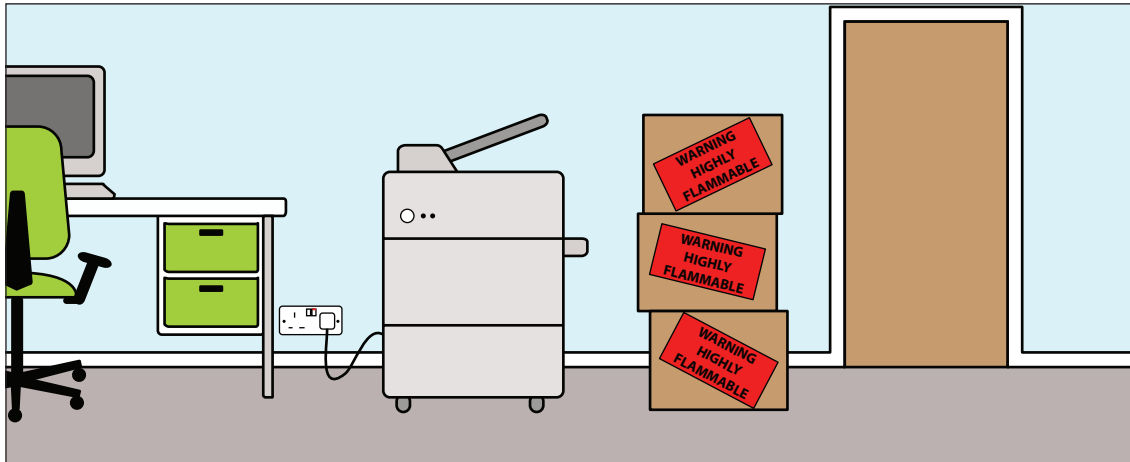


Wet chemical

- (b) Name **one** type of fire extinguisher that must never be used to put out an electrical fire. [1]

.....

2. The new contracts manager is very concerned about the storage of flammable materials in the office.



- (a) Choose **one** control measure that will minimise the risk of personal injury caused as a result of the storage of flammable materials. [1]

A fire extinguisher placed near to where the boxes are stacked.

A lockable, isolated store.

A first aid kit placed on the wall near where the boxes are stacked.

- (b) How does your choice in (a) minimise the risk of personal injury? [2]

.....

.....

.....

.....

- 3. JJBC has major security problems outside normal working hours when sites are prone to theft and vandalism.



Name and describe **two** control measures JJBC could use in order to protect its sites outside normal working hours.

Control Measure 1 [2]

.....

.....

.....

.....

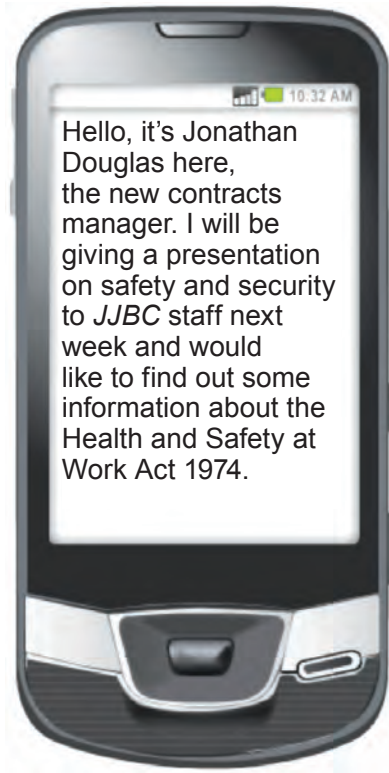
Control Measure 2 [2]

.....

.....

.....

.....



4. State **three** responsibilities under the Health and Safety at Work Act 1974 of:

(a) Employers

[3]

.....

.....

.....

.....

.....

.....

.....

(b) Employees

[3]

.....

.....

.....

.....

.....

.....

.....

- 5. It has been noted that the security fence surrounding JJBC's Cardiff site (as shown in the photograph) is very lightweight and can be pushed over or climbed over very easily.



Explain why the lightweight perimeter fence may be a security risk.

[4]

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

9811  
01007

6. Safety signs are a very important part of health and safety practice for all of JJBC's sites and offices.

(a) The following are safety signs and sign types. Draw a line to match **each** sign to the correct sign type. [5]

Mandatory	Prohibition	Fire sign	Safe condition	Warning
-----------	-------------	-----------	----------------	---------



(b) Explain the meaning of the sign shown below. [2]



.....

.....

.....

.....

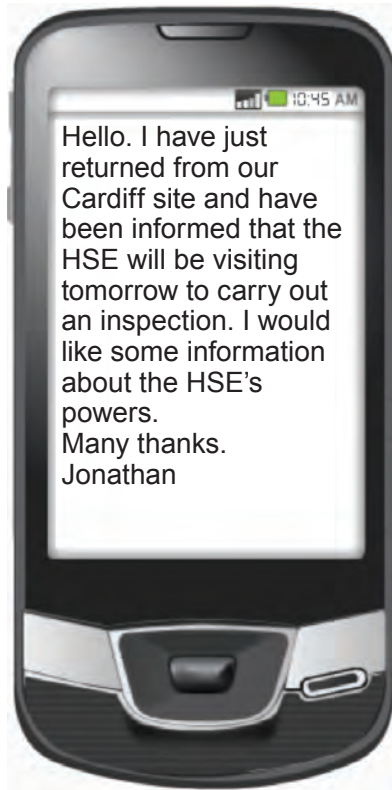


7. Jonathan Douglas is very keen to ensure that all staff and contractors are working safely. He has placed the following sign at the entrance of each of *JJBC*'s sites.



Explain the control measures that are required in **each** of the building site operations listed below. [8]

Building site operation	Control measures
Managing traffic.	
Paint spraying a ceiling in a small room without windows.	
Fixing and erecting scaffolding.	
Laying drainage services at a 3m depth.	



8. Jonathan would like some information about the Health and Safety Executive (HSE), in particular the powers it has.

State **three** main powers of the Health and Safety Executive. [3]

Power 1

.....

Power 2

.....

Power 3

.....

9. This photograph was taken at *JJBC's* Bristol site and shows a worker operating ten metres above the ground.



- (a) Identify **one** hazard in the photograph. [1]

.....

.....

- (b) Describe **two** potential effects of the hazard identified in (a). [2]

.....


.....

.....

10. The photographs below were taken in one of JJBC's workshops. The two employees shown are about to use the mechanical saw to cut the sheet material.

- (a) Complete the risk assessment form opposite. Some of the form has been completed already.



 <b>Risk assessment form</b>		
Hazard	Risk	Control Measures
Sawdust in the workshop.	Employees and visitors could be affected by inhaling sawdust. This could lead to serious illness. It is also a possible source of fire and could cause staff or visitors to slip.	Install a dust extraction unit to effectively remove all sawdust from the working area. Good housekeeping procedures should be in place and there should be training provided to staff.
No barrier around the mechanical saw.		
	[3]	[3]
Employees cutting sheet material without appropriate personal protective equipment.		
	[3]	[3]

- (b) Identify **one** other hazard not noted previously, then complete the rest of the risk assessment form below.

Examiner  
only

Hazard	Risk	Control Measures
[1]	[3]	[4]

**END OF PAPER**

**BLANK PAGE**