

# IFE Level 3 Diploma in Fire Safety and Fire Science

## Unit 6 – Fire Service Operations and Incident Command (Zone 2)

### Examiner Report – March 2018

#### Introduction

Performance was usually good with 80% of candidates achieving a Pass. There were some excellent scripts with 16 candidates attaining an A grade. 60% of the candidates that passed secured grades of D and above.

Candidates performed best on questions 1, 6 and 8. However performance on all questions was generally good with the average mark for all questions being either 8 marks or above.

#### Question 1

- a) *Define the term “flashover” and describe the signs associated with flashover. (8 marks)*
- b) *Define the term “backdraught” and describe the signs associated with backdraughts. (8 marks)*
- c) *Define the term “fire gas explosion”. (4 marks)*

#### **Examiner Feedback**

Examiners were pleased to note a major improvement in understanding of flashovers and backdraughts. Definitions of the terms could have been sharper and candidates often failed to achieve all of the marks available. However, most candidates appeared to have a good understanding of the signs associated with these situations and many candidates were able to secure a high proportion of the marks available for parts a) and b).

Few candidates were able to define the term “fire gas explosion” and therefore most candidates failed to attain marks for part c).

#### Question 2

*Describe the roles and responsibilities of the following at an incident:*

- a) *Incident Commander (10 Marks)*
- b) *Sector Commander (5 Marks)*
- c) *BA Main Control Officer (5 marks)*

## **Examiner Feedback**

Most candidates provided good responses to part a) and part b) and attained a good proportion of the marks available for these questions.

The role of the BA Main Control Officer was less well understood and candidates often attained few (if any) of the marks available for this element of the question.

## **Question 3**

*Fire and Rescue Services need to plan in advance in order to ensure that they are prepared for possible emergency incidents. Describe the factors that should be included in pre-planning for a possible incident at a building which contains a biological hazard. (20 marks)*

## **Examiner Feedback**

This question was one of the least well answered questions.

There were some excellent responses with candidates considering the wider issues associated with this type of incident and expanding their points sufficiently to identify additional information and secure additional marks.

Candidates who secured lower marks provided only a few points and usually focused on issues such as access, water supplies, taking advice from experts, arranging training, planning for decontamination arrangements and ensuring access to key contacts.

Examples of additional factors that could have been covered in responses included:

- the proximity to other buildings/public areas and subsequent risks.
- the potential environmental impacts and the plans to mitigate the risks.
- the nature of the hazardous materials – can they cause harm to people by inhalation, ingestion, direct skin contact, absorption through the skin or eyes or entry through cuts and grazes.
- any additional hazards and risks (eg unsafe structures, road traffic).
- the location of biological hazards - access/security in relation to biological hazards.
- any engineering solutions (sprinklers, ventilation systems).
- any specialist resources that are required.

## **Question 4**

*a) Describe the seven main properties of firefighting foam. (14 marks)*

*b) Describe the hazards associated with the use of high expansion foam. (6 marks)*

## **Examiner Feedback**

This question was the least popular option for candidates.

Part a) was usually answered better than part b).

In responding to part a), those candidates that knew some or all of the properties often listed them without adding the descriptions required. This meant that candidates could attain only half of the marks available.

Few candidates appeared to have an understanding of the hazards associated with the use of high expansion foam. Examples of factors that candidates should be aware of include:

- there is a general loss in effectiveness of vision, hearing and sense of direction, i.e. disorientation.
- there can be a claustrophobic effect.
- penetration of light from torches and equipment is severely affected.
- audibility of speech, evacuation signals, low-pressure warning whistles and distress signal units are severely restricted.
- transmission of heat is reduced and the location and travel of fire are therefore harder to determine.
- thermal image cameras are ineffective.
- damage to structural features above and around may not be visible.

### **Question 5**

*You have been called to an incident next to a busy main road. A lorry is lying on its side and the driver is trapped in the cab. The lorry is carrying goods for a supermarket.*

*a) Describe the hazards and risks that would be encountered in carrying out the rescue. (14 marks)*

*b) Describe the control measures that you would put in place whilst the rescue is underway. (6 marks)*

### **Examiner Feedback**

When responding to this question, candidates generally performed better on part b) than on part a).

Many candidates provided only a few points in response to part a). Candidates often identified the over-arching issues such as road traffic risks, the conditions of the site, the logistics of carrying out any rescues, the vehicle-related factors etc. However, they did not go into sufficient detail to attain many of the additional marks available for providing further detail on hazards and risks.

Many candidates attained most of the marks available for part b).

## **Question 6**

- a) *You are the Incident Commander at a fire in an office building. The incident is taking place at night. Identify and explain the priorities to be considered when formulating and implementing your tactical plan. (12 marks)*
- b) *The incident is considered to be suspicious. Explain how you would identify, preserve and gather potential evidence to support a subsequent investigation. (8 marks)*

### **Examiner Feedback**

There were many good responses to this question.

In responding to part a), some candidates appeared to be confused about the type of building and provided some irrelevant information. However, generally there were many good points presented.

Responses to part b) usually contained several relevant points. However, candidates often provided only a few over-arching points and omitted to provide the additional information that would have secured additional marks. For example, candidates usually referenced the need to leave the site in-situ but few went on to add that crew members needed to ensure that they removed everything they brought with them when they left and should check their shoes to ensure that no potential evidence had become attached; the two additional points would have secured two further marks.

## **Question 7**

- a) *Describe the different types of ventilation that can take place at an operational incident. (10 marks)*
- b) *Explain how the positive effects of ventilation aid firefighting and rescues within a building. (5 marks)*
- c) *Explain the factors that affect the effectiveness of ventilation within a building. (5 marks)*

### **Examiner Feedback**

When responding to part a), many candidates wrote about PPV in detail. However, the questions asked for descriptions of the different types of ventilation. The types of ventilation which could have been covered in responses were: natural ventilation, forced ventilation, self-ventilation, automatic ventilation, tactical ventilation, offensive ventilation and defensive ventilation.

Part b) was generally answered well with many candidates attaining all five of the marks available.

Part c) was less well answered as candidates often provided irrelevant information or just provided brief statements in relation to the route through the building without explaining the significance of this. Candidates often omitted to note that ventilation can have negative results as well as positive ones.

### **Question 8**

*You are an Incident Commander and have been mobilised to a small laboratory where it is suspected that a radioactive substance has been accidentally released.*

- a) Explain your considerations prior to committing firefighters to the scene. (6 marks)*
- b) Describe the control measures that you would put in place. (8 marks)*
- c) Describe the actions you would take after the incident has been concluded. (6 marks)*

### **Examiner Feedback**

Candidates generally provided good responses to this question with most candidates attaining marks for each of the different parts of the question. Candidates who attained lower scores for this question often listed only generic points without enhancing their responses with context-specific points.

Candidates tended to perform least well on part a). Candidates often cited only one or two considerations. These usually related to decontamination, taking advice from experts/on-site staff and having resources available. Candidates often omitted to consider issues such as the quantity and nature of the substance, whether there were non-radioactive additional hazards to be aware of and whether all persons at the laboratory are accounted for.

Part b) was often answered well. Most candidates referenced the need to restrict numbers of personnel entering into the risk area and the need to employ Time/Distance/Shielding approaches.

Candidates generally provided good responses to part c) with many candidates achieving most, or all, of the marks available.