

L3D6



THE INSTITUTION OF FIRE ENGINEERS
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IFE Level 3 Diploma in Fire Science and Fire Safety Unit 6: Fire Service Operations and Incident Command (L/505/6008)

Thursday 8 March 2018

14.30 – 17.30

Instructions to Candidates

1. The time allowed for this examination is **THREE** hours.
2. Candidates must answer **SIX** questions from the total of **EIGHT** questions set for this examination.
3. All questions carry equal marks and may be answered in any order. Candidates should follow the instructions provided in the question when composing their answers.
4. Candidates should record all of their answers in the answer book provided.
5. The question paper must be handed in with the answer book.

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)
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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)
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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)

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)
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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)

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)

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)

[Please turn over]

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)
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