

L3D6



THE INSTITUTION OF FIRE ENGINEERS
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IFE Level 3 Diploma in Fire Science and Fire Safety (VRQ)

**Unit 6: Fire Service Operations and
Incident Command (L/505/6008)**

Thursday 16 March 2017

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) Explain the term “situational awareness” and its relevance to the role of Incident Commander in successfully managing an incident. (10 marks)
- b) Incident Commanders often have to work with other agencies such as the police at the scene of an incident. Describe the factors that you would take into account when working with other agencies at an incident in order to ensure achievement of objectives. (10 marks)
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Question 2

- a) Define and provide an example of a hazard, risk and control measure in relation to operational incidents. (6 marks)
- b) Describe, giving an example of each stage, the hierarchy of control measures in relation to managing risks at an operational incident. (8 marks)
- c) Describe three different types of risk assessments that Incident Commanders can use at an operational incident. (6 marks)
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Question 3

- 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 4

In relation to wildfire incidents:

- a) Describe the factors to be considered by the Incident Commander when developing a tactical plan. (8 marks)
- b) Describe the control measures that an Incident Commander would put in place to protect crew members. (12 marks)
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Question 5

Describe the considerations and operational tactics that an Incident Commander can use when dealing with water-related rescues.

(20 marks)

Question 6

a) Explain the steps that Incident Commanders can take to identify and preserve evidence at the scene of a fire.

(12 marks)

b) Describe the actions that an Incident Commander should take following an incident.

(8 marks)

Question 7

a) Describe the different types of ventilation tactics that can be used at an operational incident.

(10 marks)

b) Explain how the positive effects of ventilation can aid firefighting and rescues within a building.

(5 marks)

c) Explain the factors that affect the effectiveness of ventilation within a building.

(5 marks)

Question 8

Firefighting foams have been developed primarily to deal with liquid fuel fires.

a) Describe the seven main properties of firefighting foam.

(7 marks)

b) Identify five factors that will influence the performance of firefighting foam.

(5 marks)

c) Describe the characteristics of medium expansion foam and, using examples, explain how these characteristics determine the situations where it would be appropriate to use medium expansion foam.

(8 marks)
