

L4C3



THE INSTITUTION OF FIRE ENGINEERS
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IFE Level 4 Certificate in Fire Science and Fire Safety

Unit 3: Fire Service Operations and Incident Command (H/505/5933)

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 responses.
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

The fire and rescue service retains responsibility for the health, safety and welfare of all persons (including multi-agency partners) working within the risk area.

At a multi-agency incident:

a) Describe the considerations of an evacuation plan. (15 marks)

b) Explain how a tactical withdrawal differs from an evacuation. (5 marks)

Question 2

Situational awareness underpins all aspects of operational decision making across all levels of command and is critical during the planning process for predicting the likely effects of activities.

a) Describe the three stages of operational situational awareness. (10 marks)

b) Explain the factors that may affect situational awareness. (10 marks)

Question 3

The rescue and recovery of firefighters or emergency personnel during an operational incident is a challenging situation.

a) Explain the initial managerial challenges together with the tactical decisions that will need to be considered by the Incident Commander. (12 marks)

b) Describe the post-incident actions specific to the incident. (8 marks)

Question 4

Wide area flooding is a multi-agency and multi-jurisdictional event that will require the deployment of a range of national resilience assets in addition to flood rescue teams. Describe the strategic planning considerations when preparing for wide area flooding incidents.

(20 marks)

Question 5

Structural frames used in the built environment vary in terms of material and design. This affects behaviour of the frame in fire. Explain the inherent issues and hazards associated with different types of structural frame during a fire.

(20 marks)

Question 6

As sector commander at a developing fire involving the upper floor of a 3-storey commercial building with adjoining factory, you have been advised that there is a large array of photovoltaic panels covering most of the flat roof area. Explain the specific firefighting challenges presented by this incident that will affect your tactical decision making.

(20 marks)

Question 7

You are the duty officer called to attend an incident involving a vehicle which has entered the watercourse with occupants trapped inside. Crews are in attendance, a risk assessment has been carried out and a rescue plan has been developed.

a) Detail the considerations that would affect your decision-making process and subsequent actions.

(10 marks)

b) From a tactical perspective, describe the factors that should be considered with regards vehicle stability.

(10 marks)

Question 8

A local energy supplier has proposed a waste site facility for biogas production. You have been tasked with working with the facility in order to ensure that your fire service is prepared for incidents that could occur at the plant.

From a strategic perspective, describe and explain the actions that you would take in order to ensure that pre-planning is effective and appropriate arrangements are in place.

(20 marks)
