

L4C3



THE INSTITUTION OF FIRE ENGINEERS
Founded 1918 • Incorporated 1924

IFE Level 4 Certificate in Fire Science and Fire Safety

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

Thursday 12 March 2020

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

An Incident Commander should be aware of the impact that their actions and behaviours have on the people they lead.

Explain the leadership behaviours that an Incident Commander should be able to demonstrate and adapt in order to maximise team performance.

(20 marks)

Question 2

You are attending an established incident at a railway station.

a) Describe the strategic issues that you would need to consider when attending such an incident at a railway station.

(14 marks)

b) State the roles that may be regarded as responsible persons at this incident and describe the range of information, advice and assistance that such roles can provide to support the development of a safe tactical plan.

(6 marks)

Question 3

You are the Tactical Commander mobilised to attend a confirmed chemical release.

a) Explain the circumstances where you would consider committing fire crews without full chemical protective clothing and state the circumstances when you would not.

(5 marks)

b) Where fire crews will be committed without full chemical protection clothing:

i) explain what you would take into consideration when assessing the risk from the released chemical substance.

(5 marks)

ii) describe the initial and longer term control measures that you would instigate.

(10 marks)

Question 4

From a tactical perspective, describe the main hazards and the relevant control measures that may need consideration when crews are required to undertake working at height operations.

(20 marks)

Question 5

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)
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Question 6

You have been appointed to the task of reviewing Site Specific Risk Information for a bus depot that has just introduced a fleet of hydrogen-powered vehicles.

- a) Describe the risk information specific to the use of hydrogen that you would need to additionally record for this type of premises. (15 marks)
- b) Detail the properties of hydrogen which are distinct from those of hydrocarbon fuels and require special consideration. (5 marks)
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Question 7

You are a Tactical Commander mobilised to attend a large developing wildland fire. You have been allocated the role of Sector Safety and need to identify suitable escape routes and safety zones.

- a) Explain the considerations when identifying, selecting and using escape routes at this incident. (10 marks)
- b) Describe the factors to be considered when selecting an area to use as a safety zone so that it provides a safe refuge from a wildfire. (10 marks)
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[Please turn over]

Question 8

Gaining situational awareness at operational incidents is vital for Incident Commanders in order to prioritise their actions and to make judgements on the effective use of resources.

As a Tactical Commander attending a fire involving a waste processing site, describe the information that you would consider gathering to enable all emergency responders to operate safely and effectively.

(20 marks)
