

# 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 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 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) Describe the control measures used to protect crew members when there is a risk of biological infections at water-related incidents.

(12 marks)

b) Describe the post-incident actions that an Incident Commander should take following an incident of this nature.

(8 marks)

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### Question 2

Name and describe each of the five key principles of joint working as set out in the JESIP (Joint Emergency Services Interoperability Principles) framework.

(20 marks)

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### Question 3

Describe the following roles in relation to the Incident Command structure at a large fire:

a) Incident Commander

(8 marks)

b) Sector Commander

(6 marks)

c) Safety Officer

(6 marks)

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### Question 4

a) Describe the environmental factors to be taken into account when using firefighting foam at incidents.

(5 marks)

b) Describe the hierarchy of environmental control measures used to contain polluted fire water run-off at an incident.

(15 marks)

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### Question 5

a) In relation to fires in buildings:

i) define the term “ventilation”

(2 marks)

ii) explain the difference between natural ventilation and forced ventilation

(4 marks)

b) Describe four benefits of ventilating buildings involved in fire.

(4 marks)

c) Define each of the following and provide examples of signs and symptoms:

i) flashover

(5 marks)

ii) backdraught

(5 marks)

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### Question 6

As the Incident Commander responding to an incident at a harbour, describe:

a) the hazards and risks that can be encountered when working alongside docks and harbours.

(8 marks)

b) the fire safety measures incorporated into ships to assist firefighting and provide fire protection.

(6 marks)

c) the control measures that would be put in place when managing an incident at a harbour.

(6 marks)

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### Question 7

You are the Incident Commander dealing with a fire in a high rise building. State the information that you would gather to achieve situational awareness in order to manage the incident.

(20 marks)

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**[Please turn over]**

### **Question 8**

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 process and content of de-briefing following an incident.

(8 marks)

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