

# L3D3



THE INSTITUTION OF FIRE ENGINEERS  
Founded 1918 • Incorporated 1924

**IFE Level 3 Diploma in Fire Science and Fire Safety (VRQ)**

## **Unit 3: Fire Service Operations and Incident Command – International (J/505/6007)**

**Thursday 12 March 2015**

**14:15 – 17:15**

### **Instructions to Candidates**

1. The time allowed for this examination is **THREE** hours.
2. Candidates are to answer **SIX** questions from the total of **TEN** 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.

**1**

You are the Officer-in-Charge of a three appliance attendance at a fire in a building where persons are reported to be trapped. Describe the priorities to be considered when formulating your tactical plan.

(20 marks)

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**2**

At a large incident, the Officer-in-Charge has appointed you as the Safety Officer. Detail the duties associated with the role of Safety Officer.

(20 marks)

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**3**

You have been called to an incident at a lawful detention centre (e.g. prison or police cells). Describe the precautions specific to incidents in this type of location that you would implement.

(20 marks)

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**4**

You are the Officer-in-Charge of the first appliance mobilised to the reports of a fire in the radiological unit of a local hospital.

a) Name and describe the two principal hazards which arise from radioactivity. (4 marks)

b) Outline the factors and safety information the Officer-in-Charge should consider prior to the deployment of personnel within the hazard zone. (8 marks)

c) What measures should the Officer-in-Charge take after the incident to help eliminate or remove risks to the personnel who entered the hazard zone? (8 marks)

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**5**

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

a) Describe the seven main properties of firefighting foam. (14 Marks)

b) Identify six factors that will influence the performance of firefighting foam. (6 marks)

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**6**

You are the Officer-in-Charge of a two appliance attendance at an incident where it is reported that a team of sewer workers is not responding from an underground location.

- a) Explain the risks to the firefighters from working in raw sewage in a confined space. (6 marks)
  - b) What are the main issues that the Officer-in-Charge should consider on arrival at this incident? (10 marks)
  - c) Detail the actions the Officer-in-Charge should take to safeguard the welfare of the firefighters after the incident has been concluded. (4 marks)
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**7**

Explain in detail the hazards that may be present when dealing with incidents involving high voltage overhead power cables and explain the precautions you would take as the Officer-in-Charge to ensure the safety of your crews.

(20 marks)

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**8**

In relation to incidents involving ships and vessels:

- a) What does the acronym SOLAS stand for? (2 marks)
  - b) Describe in detail what is contained within a SOLAS fire plan. (16 marks)
  - c) Where would the SOLAS fire plan be located? (2 marks)
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**9**

In relation to petrochemical incidents:

- a) Outline the main types of explosion risks associated with oil tanks. (6 marks)
  - b) Explain the control measures the Officer-in-Charge should take into account when dealing with a fire in a tank under repair or demolition. (14 marks)
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**[Please turn over]**

**10**

Chemical protection suits provide protection to firefighters when dealing with hazardous materials.

a) Describe the two generic types of chemical protection suits. (4 marks)

b) In relation to the design of chemical protection suits, describe the performance standards that are expected of chemical protection suits. (16 marks)

