

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 14 March 2019

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) You have been called to a serious fire involving multiple houses in a built-up environment. Upon your arrival it is confirmed that there are still persons unaccounted for. Describe your initial considerations when reviewing the situation. (12 marks)
- b) Explain how a fire can spread externally. (8 marks)
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Question 2

You are the Incident Commander called to a fire that involves a building under construction.

- a) Describe the factors relevant to a construction site that can affect fire service operations. (12 marks)
- b) Describe the control measures that you would implement when tackling a fire at a construction site. (8 marks)
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Question 3

- a) Describe the factors that would be taken into account when pre-planning for an incident involving a merchant ship in port. (10 marks)
- b) Explain the control measures that you would put in place if attending a merchant ship in a port with signs of a developing fire present. (10 marks)
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Question 4

You are the Incident Commander at an incident that will require the use of foam as an extinguishing media.

- a) Describe the seven properties of foams. (14 marks)
- b) Identify six factors that affect the performance of foams. (6 marks)
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Question 5

- a) Explain why an agreement between different agencies and Fire and Rescue Services is important in order to support effective working arrangements at incidents of all sizes. (5 marks)
- b) Describe the five key principles of effective joint working as set out in the Joint Emergency Services Principles Joint Doctrine (JESIP). (15 marks)
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Question 6

Describe the roles and responsibilities of the following:

- a) Incident Commander (10 marks)
- b) Safety Officer (6 marks)
- c) Tactical Adviser (4 marks)
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Question 7

You are the arriving Incident Commander at an incident involving radioactive materials.

- a)
- i) Describe the hazards associated with radiation. (2 marks)
 - ii) Describe the three types of radiation. (6 marks)
- b) Explain your considerations when developing your plan. (12 marks)
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[Please turn over]

Question 8

- a) Define tactical ventilation. (2 marks)
- b) Describe the factors that you would take into account when considering the use of ventilation. (12 marks)
- c) Describe the techniques used when deploying tactical ventilation. (6 marks)
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