

L3D6



THE INSTITUTION OF FIRE ENGINEERS
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IFE Level 3 Diploma in Fire Science and Fire Safety (VRQ)

Unit 6: Fire Service Operations and Incident Command – UK (L/505/6008)

Monday 5 October 2015

10.15 – 13.15

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

a) Explain how Positive Pressure Ventilation (PPV) is achieved and identify three factors that affect the efficiency of PPV. (4 marks)

b) Describe the significant hazards and risks associated with the use of PPV at an operational incident and explain the control measures that are employed. (16 marks)

2

You are the Incident Commander of the first attendance at a fire on board a merchant ship berthed alongside in harbour.

a) Describe your initial actions upon arrival at the incident. (6 marks)

b) Explain the factors that you would take into account prior to committing firefighting personnel. (14 marks)

3

In relation to Incident Command at an emergency incident:

a) Describe the Offensive Tactical Mode and give two examples of actions that might be taken when this mode is employed. (5 Marks)

b) Describe the Defensive Tactical Mode and give two examples of actions that might be taken when this mode is employed. (5 Marks)

c) Describe, with an example, what is meant by Transitional Mode and explain why this mode might be employed at an incident. (4 Marks)

d) Explain how the Incident Commander uses the Tactical Mode when Sectors are in use. (6 Marks)

4

Describe the hazards that may be present when carrying out the rescue of a large animal that is trapped in a slurry pit within a remote farm building. (20 marks)

5

- a) Describe the methods that can be used for water carriage at incidents in rural areas. (3 marks)
 - b) Outline the advantages of each method. (12 marks)
 - c) When a water relay is in operation, what safety precautions should be taken to protect crews? (5 marks)
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6

With the aid of an annotated diagram, explain how a decision making model is applied by the Incident Commander at an operational incident.

7

You are the Incident Commander at an incident in a small laboratory where it is suspected that a radioactive substance has been accidentally released.

- a) Explain your considerations prior to committing firefighters to the scene. (12 marks)
 - b) Describe the actions you would take after the incident has been concluded. (8 marks)
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8

Identify the hazards that have the potential to cause harm at incidents in tunnels and describe the control measures that you would put in place to mitigate risks.

(20 marks)

9

You are the Incident Commander arriving at a fire in an industrial area where acetylene cylinders are present.

Describe the factors that you would take into account when assessing the situation and explain the control measures that you would put in place.

(20 marks)

10

Where equipment for working at height is being used, describe the measures you would adopt to ensure safe systems of work are in place.

(20 marks)
