



THE INSTITUTION OF FIRE ENGINEERS  
Founded 1918 • Incorporated 1924

## IFE Level 3 Certificate in Fire Science, Operations, Fire Safety and Management

### Unit 2: Fire Operations (R/505/5751)

## SAMPLE QUESTIONS

### Introduction

This document has been provided to aid candidates in their preparation for the IFE Level 3 certificate in Fire Science, Operations, Fire Safety and Management. The document is in two parts:

Part 1: A selection of sample questions mapped to the syllabus for Unit 2: Fire Operations.

Part 2: A copy of the front cover of the examination paper, enabling candidates to familiarise themselves with the instructions for responding to the examination paper.

### Part One - Sample Questions

#### General Information about the Examination

The examination is one hour in duration. There are two sections:

Section one: There are 20 marks available for this section. It contains 20 multiple choice questions and each question is worth one mark. Questions may target any assessment objective within the unit. Candidates should attempt all questions in this section.

Section Two: There are 30 marks available for this section. Questions in this section take the form of short written answer questions and provide candidates with the opportunity to demonstrate their knowledge and understanding across the content contained in the unit. Candidates should attempt all questions in this section.

## Sample Multiple Choice Questions

Which of the following are key elements of risk assessment?

- i) Assessment of the risks associated with hazards
- ii) Identification of who is at risk
- iii) Effective measures to control the risks
- iv) Effective communication at the scene

- a) i, ii, iii (Ans)
- b) i, ii, iv
- c) i, iii, iv
- d) ii, iii, iv

Syllabus reference, 1.2

When working at a railway incident, which THREE of the following must be considered when determining safe working distances?

- i) Weather and other factors affecting visibility
- ii) Local topography
- iii) Nature of the incident
- iv) Number of personnel attending the incident

- a) i, ii, iii (Ans)
- b) i, ii, iv
- c) i, iii, iv
- d) ii, iii, iv

Syllabus reference, 2.1

Which of the following are positive displacement pumps?

- i) Rotary pumps
- ii) Ejector pumps
- iii) Force pumps
- iv) Lift pumps

- a) i, ii, iii
- b) i, ii, iv
- c) i, iii, iv (Ans)
- d) ii, iii, iv

Syllabus reference, 4.1

When working from open water, a significant and sudden increase in vacuum gauge reading can be caused by:

- a) More water being delivered to branches
- b) A blocked suction strainer (Ans)
- c) A drop in the level of the static water supply
- d) A sudden increase in the amount of water being delivered to the fire

Syllabus reference, 4.4

Which one of the following is NOT a property of aqueous film-forming foam?

- a) It has a slow drainage time (Ans)
- b) It has quick control and extinction properties
- c) It has good resealing capability
- d) It has reasonably good burnback resistance

Syllabus reference, 4.7

At approximately 2.4 metre intervals along their whole length, breathing apparatus guidelines incorporate two tabs 150 millimetres apart, one approximately 50 millimetres long and the other 150 millimetres long. For what three reasons are these tabs incorporated?

- i) To guide firefighters into the building by touch
  - ii) To guide firefighters out of the building by touch
  - iii) To enable firefighters to distinguish guide lines from branch lines by touch
  - iv) To enable firefighters to distinguish guide lines from any other sort of line by touch
- a) i, ii, iii
  - b) i, ii, iv (Ans)
  - c) i, iii, iv
  - d) ii, iii, iv

Syllabus reference, 4.10

### Sample Short Written Answer Questions

Guidance note to candidates: When responding to short answer questions, candidates are advised to note the instructions provided in the question and also the number of marks available. For example, a question that includes the instruction “state three” and indicates that there are three marks available requires three brief points in answer; likewise, a question with an instruction to “explain” something and which has six marks allocated to it requires six in-depth points relevant to the question asked in order to secure each of the marks available.

|  |                         |
|--|-------------------------|
| Outline four ways in which unnecessary damage can be minimised at a building on fire. (4 marks)  | Syllabus reference, 1.3 |
| Briefly describe the operational factors to be taken when dealing with a roof fire. (8 Marks)  | Syllabus reference, 2.1 |
| Fires that take place on main roads at a distance from populated areas present challenges in terms of water supply. Explain the factors to be taken into account in determining how to address the provision of water for firefighting purposes. (4 Marks) | Syllabus reference, 3.1 |
| Outline the causes of an increase in delivery pressure whilst pumping from open water. (4 marks)   | Syllabus reference, 4.4 |
| Describe the characteristics of medium expansion foam and give two examples of when this type of foam would be used. (6 Marks)   | Syllabus reference, 4.7 |

## **Part Two - Examination Paper Instructions**

Instructions for candidates undertaking the examination are provided on the front cover of the question paper. A copy of the front cover is provided below.

The instructions direct candidates to provide their answers in the answer book provided. A copy of the front cover of the answer book which includes the instructions for candidates is provided below. Candidates are required to complete the answers to the multiple choice questions on the relevant page of the answer book (page 2, which is on the reverse of the front cover of the answer book). A copy of the format of this page is provided below.

L3C2



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**IFE Level 3 Certificate in Fire Science, Operations,  
Fire Safety and Management (VRQ)**

**Unit 2: Fire Operations (R/505/5751)**

## **SAMPLE EXAMINATION PAPER FRONT COVER**

### **Instructions to Candidates**

1. You **must** use the answer book to record all of your answers.
2. This examination paper contains two sections. You must answer **all** questions in both sections of the examination paper.
3. At the end of the examination, the answer book and this question paper will be collected by the invigilators. You will not be allowed to keep any examination stationery.
4. The time allowed for this examination is **one hour**.

**EXAMINATION REFERENCE NUMBER**

**CENTRE NUMBER**

**CANDIDATE NUMBER**

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### Sample Answer Book Cover

#### Instructions to Candidates

Write your **Examination Reference Number**, **Centre Number** and **Candidate Number** in the correct spaces at the top of this page. Please write nothing in the grid below.

The answers to the multiple choice questions must be recorded on the sheet provided on page 2 in this answer book. The responses to the written response questions in Section 2 should be provided on the lined paper in this answer book.

You may write the answers to the questions in section 2 of the examination in either pencil or pen.

Any blank pages in this booklet may be used for working out answers.

At the end of the examination the question paper and this answer book will be collected by the invigilators. You will not be allowed to keep any examination stationery.

| <u>Section:</u>       | <b>Multiple Choice Question Section</b> | <b>Short Written Response Section</b> | <u>Marker's Initials</u> | <u>Total Mark</u> | <u>Grade</u> |
|-----------------------|---|---------------------------------------|--------------------------|-------------------|--------------|
| <u>Original Mark</u>  |   |                                       |                          |                   |              |
| <u>Moderated Mark</u> |   |                                       |                          |                   |              |
| <u>Final Mark</u>     |   |                                       |                          |                   |              |

# MULTIPLE CHOICE QUESTION ANSWER SHEET

Please use a pencil to record your answers. Mark your answers by striking them through like this:

1 [a] [b] ~~[c]~~ [d]

Please do NOT mark with ticks, crosses or circles. If you make a mistake, erase it completely.

1 [a] [b] [c] [d]

11 [a] [b] [c] [d]

2 [a] [b] [c] [d]

12 [a] [b] [c] [d]

3 [a] [b] [c] [d]

13 [a] [b] [c] [d]

4 [a] [b] [c] [d]

14 [a] [b] [c] [d]

5 [a] [b] [c] [d]

15 [a] [b] [c] [d]

6 [a] [b] [c] [d]

16 [a] [b] [c] [d]

7 [a] [b] [c] [d]

17 [a] [b] [c] [d]

8 [a] [b] [c] [d]

18 [a] [b] [c] [d]

9 [a] [b] [c] [d]

19 [a] [b] [c] [d]

10 [a] [b] [c] [d]

20 [a] [b] [c] [d]

**Score:**