5. Sample examination question papers

5.1 Unit IA: International management health and safety

THE NATIONAL EXAMINATION BOARD IN OCCUPATIONAL SAFETY AND HEALTH

NEBOSH INTERNATIONAL DIPLOMA IN OCCUPATIONAL HEALTH AND SAFETY

Unit IA: INTERNATIONAL MANAGEMENT OF HEALTH AND SAFETY

[DATE]
3 hours, 0930 to 1230

10 minutes reading time is allowed before the start of this examination. You may not write anything during this period.

Answer both Section A and Section B

SECTION A

This section contains six questions. Answer ALL SIX questions.
All questions carry equal marks.
The maximum marks for each question, or part of a question, are shown in brackets.
You are advised to spend about 15 minutes on each question.
Start each answer on a new page.

1 (a) Giving reasons in EACH case, identify FIVE persons who could be interviewed to provide information for an investigation into a workplace accident. (5)

(b) Outline the issues to consider when preparing the accident investigation interviews for workers from within the organisation. (5)

2 Outline ways in which a health and safety practitioner could evaluate and develop their own competence. (10)
3 **Outline**, with appropriate examples, the key features of the following risk management concepts:

(a) risk avoidance;  
(b) risk reduction;  
(c) risk transfer;  
(d) risk retention.

4 (a) **Outline** the *site operator* requirements for emergency planning and procedures within the International Labour Organisation Convention C174 ‘Prevention of Major Industrial Accidents’ 1993.  

(b) As part of the on-site emergency planning process, a large manufacturing site intends to provide information to the external emergency services.

**Outline** the types of information that the site should consider providing to the *ambulance* service.

5 **Outline**, with examples, the benefits and limitations of:

(a) prescriptive legislation;  
(b) goal setting legislation.

6 (a) **Give** the meaning of the term ‘*motivation*’.

(b) **Outline**, with an example in EACH case, how workers can be motivated to behave in a positive way.
SECTION B

This section contains five questions. Answer THREE questions only.
All questions carry equal marks.
The maximum marks for each question, or part of a question, are shown in brackets.
You are advised to spend about 30 minutes on each question.
Start each answer on a new page.

7  (a) Outline the principles, application and limitations of Event Tree Analysis as a risk assessment technique. (6)

(b) A mainframe computer suite has a protective system to limit the effects of fire. The system comprises a smoke detector connected by a power supply to a mechanism for releasing extinguishing gas. It has been estimated that a fire will occur once every 5 years (f=0.2/year). Reliability data for the system components are as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detector</td>
<td>0.90</td>
</tr>
<tr>
<td>Power supply</td>
<td>0.99</td>
</tr>
<tr>
<td>Extinguishing gas release mechanism</td>
<td>0.95</td>
</tr>
</tbody>
</table>

(i) Construct an event tree for the above scenario to calculate the frequency of an uncontrolled fire in the computer suite. (10)

(ii) Suggest ways in which the reliability of the system could be improved. (4)

8  (a) Explain the objectives of:

(i) active health and safety monitoring; (5)
(ii) reactive health and safety monitoring. (5)

(b) Outline FIVE active health and safety monitoring methods. (5)

(c) Outline FIVE reactive health and safety monitoring methods. (5)
9  (a) In relation to the improvement of health and safety within companies, **describe** what is meant by:

(i) corporate probation;  
(ii) adverse publicity orders;  
(iii) punitive damages.  

(b) **Outline** how the International Labour Organisation can influence health and safety standards in different countries.  

(c) **Outline** how legislation may improve health and safety.

10  (a) **Outline** the meaning of ‘skill based’, ‘rule based’ **AND** ‘knowledge based’ behaviour.  

(b) With reference to practical examples or actual incidents, **explain** how **EACH** of these types of operating behaviour can cause human error **AND**, in **EACH** case, **explain** how human error can be prevented.

11  (a) **Give** the meaning of the term ‘health and safety culture’.  

(b) **Outline** the role of an organisation in the development of a positive health and safety culture.  

(c) **Identify** ways of measuring the effectiveness of a health and safety culture.