

## Revision questions for NGC2 element 5

For many people, electricity seems to be perceived as a subject of special obscurity and complexity; for this reason, in this element, we decided to adopt a different approach to usual, namely exposing students very early in their study to typical NEBOSH Certificate examination questions; in case you did not attempt all of them at the time, these eight questions are repeated below together with another two questions, 9 and 10.

The answers to questions 1–8 are, as you know, given in the study material; the answers for questions 9 and 10 are given in the separate NGC2/5 answer sheet.

*Question 1 Outline the effects of a severe electric shock on the body, and the emergency action to be taken.*

*Question 2 Outline the measures that need to be undertaken to ensure the safe use of portable electrical appliances that might be found on a building site.*

*Question 3 Outline the hazards and the precautions to be taken when charging batteries of electrically-driven vehicles such as fork lift trucks.*

*Question 4 Describe how earthing can reduce the risk of receiving an electric shock.*

*Question 5 Outline how each of the following provide protection when using electrical appliances:*

- fuse
- residual current device, rcd
- reduced voltage
- double insulation

*Question 6 Describe the principles of operation and typical uses of the following:*

- earthing
- reduced voltage

*Question 7 Outline the electrical precautions to be taken to protect against electrical contact when:*

- excavating in a built-up area
- working in the vicinity of overhead power lines

*Question 8 Describe the principles and limitations of a fuse as an electrical protection device. Identify two advantages that a residual current device has over a fuse.*

*Question 9 Define the meaning of the following terms which are listed in the syllabus: competence, earthing, isolation, insulation, protection, reduced voltage, excess current protection, residual current device and duty holder.*

*Question 10 What does 'double insulation' mean?*

