

**OLLSCOIL NA hÉIREANN, GAILLIMH
NATIONAL UNIVERSITY OF IRELAND, GALWAY.**

SEMESTER 1 December 1999

**DIPLOMA IN QUALITY ASSURANCE EXAMINATION
VISITING STUDENTS**

QUALITY MANAGEMENT I

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Instructions: Time allowed: 2 Hours Attempt: Any 3 questions

- Q1 a)** Outline the development of the Irish quality movement. (50%)
- b)** Describe some of the lessons in the video 'Right first time'. (50%)
- Q2** Use your own data/facts to show how four of the following techniques can be used in quality problem solving or improvement. Draw a suitable diagram for each technique chosen.
- (i) Process flow chart
 - (ii) Histogram
 - (iii) Pareto Diagram
 - (iv) Cause & Effect (Ishikawa) Diagram
 - (v) Affinity diagram (4 x 25%)
- Q3** Write explanatory notes on four of the following topics.
- (i) The main constituents of quality costs
 - (ii) Carrying out a Quality Audit.
 - (iii) The elements of product design that directly influence quality
 - (iv) The importance of materials in industry
 - (v) The CE mark
 - (vi) The mixed success of quality initiatives (4 x 25%)
- Q4 (a)** The proposed revision to ISO9001: 2000 includes some new areas that were considered necessary additions to the 1994 standard. Discuss these proposed additions and comment on any potential implementation difficulties. (60%)
- (b)** What are the main benefits associated with ISO9001/2 accreditation? (40%)
- Q5 a)** Explain the concept, purpose and benefits of Quality Function Deployment (QFD). Use a simple example to illustrate the technique i.e. a completed *house of quality*. (60%)
- b)** Discuss the role and benefits of cross-functional teams within QFD and within a quality improvement programme in general. (40%)