

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

SUMMER EXAMINATION 2001

SECOND COMMERCE
VISITING STUDENTS

QUALITY SAFETY AND ENVIRONMENTAL MANAGEMENT

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Instructions: **Time allowed: 2 Hours.** **Attempt: Any 3 questions [All questions carry equal marks]**

- Q1** a) The new quality management standard, ISO9001: 2000, is based on a 'process approach' to quality. Explain the key elements of this process approach to quality management. (40% marks)
- b) What are the main steps involved in implementing ISO9001 in an organization? (60% marks)
- Q2** Write explanatory notes on **four** of the following topics: (4x25% marks)
- A Product Liability Prevention Programme
 - Measuring quality in a service organization
 - The main elements of the Liability for Defective Products Act, 1991
 - Accident prevention in the workplace
 - What similarities, if any, exist between ISO9001 and ISO14001
 - The four cost elements that make up quality costs
- Q3** a) Describe **four** patterns that you might see on a control chart and the appropriate corrective action required in each case. (40% marks)
- b) For the following control charts, explain when they are used and what parameter is plotted in each case:
 - X-bar, R chart, C chart, P chart, S chart (50% marks)
- c) Comment briefly on the problems associated with implementing statistical process control in a production line. (10% marks)
- Q4** Explain the following elements of the Safety, Health and Welfare at Work Act, 1989:
1. The responsibilities of Employees for their own safety in the workplace (5 marks)
 2. The employers duties for health and safety. (7 marks)
 3. The Content of the Safety Statement (8 marks)
- Q5** One of the primary objectives of an environmental management system is to identify and manage the consequences associated with incidents involving an organization's environmental effects. Carry out a brief consequence analysis (or Risk assessment) on the following scenario:
(i.e. Identify the relevant closed and/or open consequences):
- a) Your company is situated on the banks of a fresh water river that attracts tourists and anglers each year. Part of your process involves the delivery and storage of 1,000 litres of a flammable chemical in liquid form, every month. Your task is to identify the potential environmental consequences of a chemical spillage during delivery of the chemical and to recommend appropriate controls to minimise the risk involved. (60% marks)
- b) Are there any other risks (e.g. to workers?) associated with this scenario and if so, what could be done to reduce that risk? (40% marks)