

SUMMER 1999

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

Statistical tables, graph paper and control chart tables are available if required

- Q1** a) What are the main elements of ISO14001, the Environmental Management Standard. (10 Marks)
- b) According to the Safety, Health and Welfare at Work Act, 1989, what are the main responsibilities of an Employee in ensuring their own safety health and welfare at work? (6 Marks)
- c) What is a Prohibition Notice, issued by the HSA. (4 marks)
- Q2** a) What are the main elements of the Liability for Defective products Act, 1992? (12 marks)
- b) What are the key elements of a product liability prevention programme? (8 marks)
- Q3** a) Explain each of the following terms in the context of acceptance sampling:
- AOQ (Average Outgoing Quality)
 - LTPD (Lot Tolerance Percentage Defective)
 - AQL (Acceptable Quality Level)
 - Consumer's Risk (β)
 - Producer's Risk (α)
 - Type 1 Error
 - Type 11 Error
 - AOQL (Average Outgoing Quality Limit)
 - Operating Characteristic Curve (OC Curve)
 - Random Sampling
- (10 marks)
- b) Determine 4 points on the B operating characteristic curve of the following single sampling plan
(n, c) = (10, 1) with lots of size 1000 = N
- [Hint: Use Binomial Distribution] (10 marks)
- Q4** a) If you were to choose six key areas, from the ISO9001 standard, for particular attention during a quality audit, what would they be and why? (12 marks)
- b) What are the main benefits of the ISO9001 quality system? (8 marks)
- Q5** Write short explanatory notes on four of the following: (4x5 marks)
- Deming's philosophies on quality
 - A Safety Statement
 - The use an interpretation of variable control charts for process control
 - Accident Investigation and analysis
 - Hazard analysis and risk assessment techniques (Use an example)
 - Safety Management