NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF APPLIED CHEMISTRY
BACHELOR OF SCIENCE HONOURS DEGREE
END OF SECOND SEMESTER EXAMINATIONS – JUNE 2010
QUALITY ASSURANCE MANAGEMENT AND CONTROL – SCH 2211
TIME: 3 HOURS

Instructions to candidates

Answer **All** Questions from Section A and **any three (3)** from Section B. Section A
carries forty (40) marks and each question in Section B carries twenty (20) marks.
Start your answers to each question on a new page. This paper comprises 2 printed pages
plus one page as attachment.

SECTION A [Answer All Questions from this Section. This Section carries forty (40)
marks].

Study the attached case and answer all the questions that follow.

1. Using   a statistical control method of your choice identify the problem
experienced at the Bully Bag Line?   (14 marks)

2. What management interventions do you recommend for the Bully Bag Line
operation?   (10 marks)

3. Suggest a TPM implementation plan for National Food's Oil Manufacturing
Plant. This plant produces and bottles Red Seal cooking oil in 750ml, 2l, 5l, 20l
containers.   (10 marks)

4. Explain the role played by the organizational structure in an organization?
(6 marks)

SECTION B [Answer any three (3) questions from this Section. Each question carries twenty (20) marks].

1. Critically examine, with examples, the following statements:

   (a) Total quality is too important to be considered as subsidiary to profit." Do you agree? Why or Why not?
   (b) "Quality and cost are complimentary and not conflicting business objectives."

   (20 marks)

2. Examine the role of leaders in transformation or changing the organization. What principal reasons do you think, might be responsible for many leaders not being able to succeed in managing change in the context of TQM?   (20 marks)

3. (a) What are the principal concepts of ISO 9000 QMS?

   (b) How does the implementation of the system encourage transparency and accountability?   (20 marks)

4. (a) What risks are associated with acceptance sampling?   (6 marks)

   (b) In an acceptance sampling plan developed for lots containing 1,000 units, the sample size n is 85 and c is 3. The percent defective of the incoming lots is 2%, and the probability of acceptance, which was obtained from an OC curve, is 0.64. What is the average outgoing quality? Show your working.
                                                                        (6 marks)

   (c) A load of 200 desk lamps has just arrived at the warehouse of Lighting, Inc. Random samples of $n = 5$ lamps are checked. If more than one lamp is defective, the whole lot is rejected. Set up the OC curve for this plan
                                                                        (8 marks)

.........THE END..........