



CRAWFORD UNIVERSITY
COLLEGE OF NATURAL AND APPLIED SCIENCES
DEPARTMENT OF PHYSICAL AND EARTH SCIENCES
(INDUSTRIAL CHEMISTRY UNIT)
HARMATTAN SEMESTER EXAMINATIONS 2013/2014 SESSION

COURSE CODE: ICH 425

COURSE TITLE: QUALITY CONTROL

UNITS: 2

TIME ALLOWED: 2 HOURS

DATE: FEBRUARY, 2014

INSTRUCTION: ATTEMPT ONLY THREE QUESTIONS

1. (a) Write the full meaning of TQM and then state the objectives of the system.
(b) (i) Explain briefly Quality Control as a management tool.
(ii) Mention the factors that influence Quality Control as a management tool.
(c) Draw a diagram to show the interrelationships between Quality Control and other departments in an organization.
2. (a) Write a brief note on Quality Assurance as applied in any chemical industry.
(b) Mention the problems associated with the product inspection in Traditional Quality Control.
(c) Write a short note on the following as applied in food Quality Control:
(i) Optical properties (ii) Rheological properties (iii) Stability (iv) Flavour
3. (a) Suggest at least ten basic on-site tests that can be done on inspection of textile products.
(b) Describe how you will distinguish nylon from other fibers.
(c) State the approach of hazard analytical critical control points (HACCP) to Quality Assurance and then explain the following terms:
(i) Hazard Analysis
(ii) Critical Control Point (CCP)
(iii) G M P- Good Manufacturing Practice.
4. (a) (i) Describe the seven tools of Quality Control.
(ii) State whether some of the tools described in question (a) (i) above are more important than the others.
(b) Explain the following tests as applied in Quality Control of cosmetic products:
(i) Temperature variations
(ii) Cycle testing

- (iii) Centrifuge testing.
- (iv) Light testing.
- (v) Mechanical shock testing.

5. (a) If customers are supplied loaves of bread by a company and the following problems are eventually discovered by them, suggest for each the possible reasons for the shortcomings observed in the products..
- (i) Many of the loaves are contaminated with pieces of wood.
 - (ii) Loaves of a different size and colour do not arrive as requested.
 - (iii) The bread has bad flavour and some customers have complained that they have been made ill after eating the bread.
- (b) Mention the wider approach you will employ to overcome the problems outlined in question (a) above.
- (c) State the disadvantages of the sensory analysis that is often considered the ultimate test for the acceptance or rejection of a particular food product.

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