



NATIONAL OPEN UNIVERSITY OF NIGERIA
14/16 AHMADU BELLO WAY, VICTORIA ISLAND, LAGOS
SCHOOL OF SCIENCE AND TECHNOLOGY
MARCH/APRIL 2014 EXAMINATION

COURSE CODE: CHM 304

COURSE TITLE: COLOUR CHEMISTRY AND TECHNOLOGY

TIME ALLOWED: 2HOURS

INSTRUCTION: *ANSWER ANY 4 QUESTIONS*

1. (a) What factors affect the selection of Pigments? (7 mks)
(b) Discuss the limitations of Natural Pigments. (10 ½ mks)

2. (a) Organic Pigments possess certain key features. What are these? (10 ½ mks)
(b) Why are Organic Pigments majorly chemically synthesized? (1 mk)
(c) Mention some of the preferred applications of Aluminium pigments. (6 mks)

3. (a) What gives Dyes Solubility and Cohesiveness? Explain. (5 mks)
(b) Discuss the applications of pigments in the Ceramic Industry. (12 ½ mks)

4. Write short notes on the following:
 - (i) Acid Dyes (6 ½ mks)
 - (ii) Direct Dyes (6mks)
 - (iii) Basic Dyes (5mks)

5. (a) Describe a simple experiment for making of Natural Dyes from Plant materials.

(10 ½mks)

- (b) Write short notes on the uses of Kevlar and Nomex.
(7mks)

6. (a) What are the special features of Pad Batch Dyeing Process? (13 ½ mks)

- (b) Mention the features of the Beam Dyeing Machine. (4 mks)