



NATIONAL OPEN UNIVERSITY OF NIGERIA
DEPARTMENT OF PURE AND APPLIED SCIENCES
JANUARY, 2018 EXAMINATIONS

COURSE CODE: CHM 304

CREDIT UNIT: 2

COURSE TITLE: COLOUR CHEMISTRY AND TECHNOLOGY

TIME: 2 HRS

INSTRUCTION: Answer question 1 and any other 3 questions

CHM304 EXAM 2017_2

Questions 1

- a. Differentiate between additive and subtractive primary colours. (6 mark).
- b. What are dyes? (4 mark).
- c. Outline any ten types of dye based on the classification by the International Trade Commission

(5 mark).

d) Briefly explain the term "colour modifiers" and state what happens when no or different

methyl groups are added to Pararosanil dye

(6 mark).

- d. Mention the Technical features of High Temperature High Pressure Soft flow Dyeing Machine

(4 mark)

Questions 2

- a) List three key features of soft flow dyeing machine (3 mark).
- b) Discuss the advantages of Overflow Dyeing Machine (6 mark).
- c) Briefly explain three main types of pigments. (6 mark).
- d)

Questions 3

- a) State six limitations of natural pigments (6 mark).
- b) Briefly explain 9 (nine) major difference between dyes and pigments (9 mark).

Questions 4

- a) With the aid of a simple diagram, describe the operation of a Hank dyeing machine. (9 mark).
- b) Enumerate the advantages of both Jig dyeing and Beam dyeing machines. (5 mark).

Question 5

- a) Write short notes on the following: (10 mark).
 - i) Fibres
 - ii) Tertiary Colours
 - iii) Vat Dye
- b) What is an Auxochrome ? (5 mark).

