

**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

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

(5 mark).

 d) Briefly explain the term ‘’colour modifiers’’ andstate what happens when no or different

methyl groups are added to Pararosanil dye (6 mark).

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

(4 mark)

**Questions 2**

1. List three key features of soft flow dyeing machine (3 mark).
2. Discuss the advantages of Overflow Dyeing Machine(6 mark).
3. Briefly explain three main types of pigments. (6 mark).

**Questions 3**

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

**Questions 4**

1. With the aid of a simple diagram, describe the operation of aHank dyeing machine.(9 mark).
2. Enumerate the advantages of both Jig dyeing and Beam dyeingmachines.(5 mark).

**Question 5**

1. Write short notes on the following: (10 mark).
2. Fibres ii)Tertiary Colours iii) Vat Dye
3. What is an Auxochrome ? (5 mark).