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

COURSE CODE: CHM304
COURSE TITLE: COLOUR CHEMISTRY AND TECHNOLOGY
TIME ALLOWED:2hrs

INSTRUCTION: Six questions to answer four (each question carriers a total 17 $\frac{1}{2}$ marks)

Question 1

a) Explain briefly the term colour perception(5marks)

b) Differentiate between additive and subtractive primary colours (5marks)

c) Write short notes on the following:

i) Secondarycolours ii) primarycolour(5marks)

d) What do you understand by the word pigments? (2 $\frac{1}{2}$ marks)

Question 2

a) Define the following terms:

i) Polymerization ii) Mordant(7 $\frac{1}{2}$ marks)

b) Discuss five types of mordant and their features(5marks)

c) Explain the term polymer fiber, give two examples(5marks)

Question 3

a) What is meant by primary colour? (3 $\frac{1}{2}$ marks)

b) Enumerate and discuss the industrial classification of dyes. (8 marks)

c) State six limitation of natural pigment (6 marks)

Question 4

a) Enumerate five categories of organic pigments(5marks)

b) Discuss briefly five features of organic pigments(7 $\frac{1}{2}$ marks)

c) What are auxochromes? Mention two kinds of auxochrome (5marks)

Question 5

a) Differentiate between organic and inorganic pigments (6marks)

b) List and discuss four applications of pigments (6 $\frac{1}{2}$ marks)

c) Enumerate the specific role of a mordant in the dyeing process. (5marks)

Question 6

a) Define the term dye and give two examples (5marks)

b) Discuss briefly the following

i) Types of Jig Dyeing Machine (4 $\frac{1}{2}$ marks)

ii) Features of Hag Dyeing Machine (4 marks)

iii) Advantages of Overflow Dyeing Machine (4 marks)