

DYEING AND BLEACHING

PREAMBLE

This syllabus is intended to create a platform for an objective assessment of candidates' understanding of the socio-economic prospects of Dyeing and Bleaching. Through this, the extent of their skills in exploiting Dyeing and Bleaching for wealth creation, self sustainability and poverty eradication shall be evaluated.

OBJECTIVES

Candidates will be tested on their

- (i) knowledge and practical skill in the functional and productive manipulation of dyes and chemicals on fabrics;
- (ii) creative ingenuity in visual representations;
- (iii) ability to produce finished designed fabric for appreciation and economic patronage;
- (iv) understanding of the safety measures in executing dyeing and bleaching.

SCHEME OF EXAMINATION

There will be three papers, Papers 1, 2, and 3, all of which should be taken. Papers 1 and 2 shall be a composite paper to be taken at one sitting.

PAPER 1: The paper will consist of forty multiple choice questions drawn from the entire syllabus. Candidates will be required to answer all the questions in 45 minutes for 40 marks.

PAPER 2: The paper will consist of six essay type questions out of which candidates will be required to answer any four of the questions in 1 hour 40 minutes for 60 marks.

PAPER 3: This paper will evaluate candidates' skills in tie-dye, batik and printing. The paper shall have three alternatives: (a) Tie-dye; (b) Batik (Wax or Starch Resist) and (c) Printing. Candidates shall answer question(s) in one of the alternatives only.

The paper shall be rendered on fabric with dye-resist materials and printing inks. Each alternative shall carry 100 marks. Candidates shall have 30 minutes for preparation after which the test will commence and last for four hours.

The test will be conducted and assessed on-the-spot by a visiting Examiner appointed by the West African Examinations Council (WAEC). The question paper will be made available to candidates at least two weeks before the date of the test.

DETAILED SYLLABUS

1. INTRODUCTION TO TIE-DYE.

- (a) Meaning of tie- dye
- (b) Types of tie-dye designs
- (c) Materials and tools for tie-dye

2. COLOUR MANIPULATION AND MOTIF FORMATION

- (a) Definition of colour
- (b) Classes of colours
- (c) Formation of motifs for designs
- (d) Using motifs to create impressions on the fabric
- (e) Creation of patterns e.g repeat, mirror, halfdrop, halfslide, block etc.

3. SAFETY AND PRECAUTIONS

- (a) Safety materials to be used when dyeing e.g. nose and mouth masks, rubber gloves, apron, cold water, petroleum jelly e.t.c.
- (b) Proper storage of chemicals
- (c) Proper handling of electrical appliances
- (d) Importance of safety precautions

4 PREPARATION OF DYE

- (a) Meaning of dye
- (b) Types of dyes e.g.(synthetic and natural dyes)-cold-water dye(reactive), warm / hot-water dye (dylon) etc.
- (c) Preparation of dye bath

5. DYEING PROCESSES

- (a) Dyeing procedures
 - a.i. Plain dyeing
 - a.ii. Pattern dyeing e.g tying techniques, marbling
- (b) Finishing (oxidation, washing, starching, ironing and packaging)

6. **INTRODUCTION TO BATIK**

- (a) Meaning of batik
- (b) Types of batik e.g freehand, splashing, cracking, blocking, etc
- (c) Materials and tools for batik e.g wax, fabric, tjanting, form, starch, yam, flour, dyes etc

7. **BATIK**

(1) **Wax Resist Method**

- (a) Preparation of fabric, wax and other materials
- (b) Waxing techniques and precautions
- (c) Oxidation and de- waxing
- (d) Finishing.

(2) **Starch Resist Method**

- (a) Meaning of starch
- (b) Materials and tools for starch resist technique
- (c) Preparation of paste
- (d) Safety and precautions in starch resist method
- (e) Different methods of starch resist e.g. stenciling, freehand drawing, screening and stamping
- (f) Oxidation and removal of starch
- (g) Finishing

8. **FABRIC PRINTING**

- 1) Meaning of printing
- 2) Printing techniques e.g relief process (lino), intaglio, silk screen etc.
- 3) Tools, materials and equipment for printing
- 4) Motif formation
- 5) Production process of fabric printing
- 6) Finishing

9. TIE-DYE AND PRINTING

- (1)
 - (a) Introduction to tie-dye printing
 - (b) Techniques used to print on tie- dye e.g. direct printing, discharge printing, resist printing, transfer printing, etc.
 - (c) Materials and tools for tie-dye and printing
 - (d) Finishing
- (2).
 - (a) Meaning of bleaching
 - (b) Types of bleaching e.g chlorine bleaching and oxygen bleaching
 - (c) Materials and tools for bleaching e.g fabric, chemicals(chloros, caustic soda, hydrosulphite etc).
 - (d) Application of bleach on fabric.

LIST OF MATERIALS, TOOLS AND EQUIPMENT

- 1. Alum
- 2. Bee wax
- 3. Boiling ring / Electric Kettle
- 4. Bowls of different sizes
- 5. Brown paper or old newspaper
- 6. Brushes, sable and bristle
- 7. Cardboard
- 8. Caustic soda, hydrosulphite, chlorine, chlorous, sodium chloride
- 9. Chisel
- 10. Cutting knives
- 11. Cutting saw/ machine
- 12. Drawing pins
- 13. Drawing sheet
- 14. Dye stuffs

15. Eraser
16. Fabric (assorted)
17. Foam
18. Frame for stretching fabric and a medium sized screen printing frame
19. Generator
20. Hand drier
21. Pressing iron
22. Lino sheets
23. Lino cutters
24. Long table for printing
25. Masking tapes
26. Metal pot
27. Plastic
28. Mixing cups
29. Needle and thread
30. Nylon(thick or carpet)
31. Padded table
32. Paddle stick and ladle
33. Palette knife
34. Pegs
35. Pencil
36. Plastic buckets
37. Poster colour
38. Raffia/twine

39. Rubber gloves
40. Rubber rollers
41. Rulers
42. Spoons
43. Spraying gun, atomizer machine
44. Squeegee
45. Stapler
46. Stove
47. Tjanting
48. Template(different sizes)
49. Textfast ink
50. Wax
51. Wooden hanger
52. Thimbles
53. Opaque ink
54. Mesh
55. Seriset and bichromate (blue emulsion)
56. Lacquer
57. Plain glass
58. Starch