

Creating Styles in Selected Garments
for Early Adolescent Girls

BY

Sangeetha. S

A THESIS SUBMITTED TO THE AVINASHILINGAM INSTITUTE FOR HOME SCIENCE
AND HIGHER EDUCATION FOR WOMEN (DEEMED UNIVERSITY) COIMBATORE-641 043,
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE IN HOME SCIENCE TEXTILES AND CLOTHING

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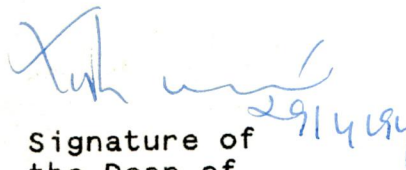
IN PARTIAL FULFILMENT OF THE REQUIREMENTS OF THE
DEGREE OF MASTER OF SCIENCE IN HOME SCIENCE,
TEXTILES AND CLOTHING

APRIL 1994

Certified as bonafide research work.



Signature of the
Head of the
Department



Signature of
the Dean of
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Signature of
the Guide

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Contents

LIST OF CONTENTS

CHAPTER		PAGE NO.
	LIST OF TABLES	
	LIST OF PLATES	
	LIST OF FIGURES	
	LIST OF APPENDICES	
I.	INTRODUCTION	1
II.	REVIEW OF LITERATURE	
	A. Importance of Clothing	5
	B. Adolescent Girls Clothing	6
	C. Wardrobe Contents of Adolescent Girls.	6
	D. The Concept of Fashion and Style.	7
	E. Color and Design in Garments	9
	F. Creating Styles in Garments	11
	G. Importance of Sewing	12
III.	EXPERIMENTAL PROCEDURE	
	A. Study of Garment Designs suitable for Early Adolescent Girls	14
	B. Finding out the Opinion of the Adolescent Girls regarding their Garments.	15
	1. Selection of the Sample	15
	2. Selection of the Method	16
	3. Framing the Interview Schedule	16

CHAPTER	PAGE NO.
4. Conducting the Survey	17
5. Consolidation and Analysis of Data	17
C. Standardising the Body Measurements of the Early Adolescent Girls.	17
1. Selection of the Age Group	18
2. Selection of the Sample	18
3. Taking the Body Measurements	18
4. Standardising the Body Measurements	21
D. Developing Basic Patterns for the Selected Garments.	22
1. Selection of the Garments	22
2. Preparation of Instructions for the Selected Garments	22
3. Drafting the Basic Patterns	23
E. Creating and Introducing Styles in the Selected Garments.	24
1. Creating Styles in the Selected Garments	24
2. Selecting the Created Styles for the Garments	25
3. Preparing Paper-Patterns for the Selected Styles	26
4. Selection of the Material	27

CHAPTER		PAGE NO.
	5. Preparation of the Fabric	27
	6. Cutting the Material	28
	7. Introducing the Styles in the Selected Garments.	29
	F. Evaluation of the Constructed Garments	47
	G. Evaluation of Created Styles in the Selected Garments	49
IV	RESULTS AND DISCUSSION	
	A. Opinion of the Adolescent Girls regarding their Outfits	51
	1. Preference of Outfits.	52
	2. Preference of Color Harmonies	54
	3. Preference of Material	56
	4. Preference of Texture of the Material	57
	5. Preference of Textile Design	59
	6. Preference of Styles in the Garment	61
	7. Types of Styles Preferred	61
	8. Preference of Trimmings and Decoration	64
	B. Standardising the Body Measurements of Early Adolescent Girls	66

CHAPTER

PAGE NO.

	C. Evaluation of the Constructed Garments.	68
	1. Fitness of the Constructed Garments	68
	2. Effectiveness of the Styles Created in the Constructed Garments	72
V	SUMMARY AND CONCLUSION	76
	BIBLIOGRAPHY	
	APPENDICES	

LIST OF TABLES

TABLE		PAGE NO.
I	NUMBERING THE DEVELOPED DESIGNS	25
II	SELECTED GARMENT DESIGNS	26
III	PREFERENCE OF OUTFITS	52
IV	PREFERENCE OF COLOR HARMONIES	54
V	PREFERENCE OF MATERIAL	56
VI	PREFERENCE OF TEXTURE OF THE MATERIAL	57
VII	PREFERENCE OF TEXTILE DESIGN	60
VIII	TYPES OF STYLES PREFERRED	62
IX	PREFERENCE OF TRIMMINGS AND DECORATION	64
X	STANDARDISED BODY MEASUREMENTS OF EARLY ADOLESCENT GIRLS	66
XI	EVALUATION OF THE FITNESS OF THE CONSTRUCTED GARMENTS	69
XII	EVALUATION OF THE STYLES CREATED IN THE CONSTRUCTED GARMENTS.	74

LIST OF PLATES

PLATE		PAGE NO.
I	SALWAR AND KAMEEZ (A ₂ B ₂ , A ₇ B ₇ , A ₉ B ₉ , A ₁₂ B ₁₂ AND A ₁₅ B ₁₅)	35
II	SKIRT AND SKIRT TOP (C ₁ D ₁ , C ₆ D ₆ , C ₇ D ₇ , C ₁₁ D ₁₁ AND C ₁₃ D ₁₃)	43
III	NIGHT GOWN (E ₂ , E ₄ , E ₇ , E ₁₁ AND E ₁₃)	48

LIST OF FIGURES

FIGURE		PAGE NO.
I	TAKING BODY MEASUREMENTS	20
II	PREFERENCE OF OUTFITS	53
III	PREFERENCE OF COLOR HARMONIES	55
IV	PREFERENCE OF TEXTURE OF THE MATERIAL	58

LIST OF APPENDICES

APPENDIX		PAGE NO.
I	INTERVIEW SCHEDULE USED TO ELICIT INFORMATION REGARDING THE ADOLESCENT GIRLS OUTFITS.	(xix)
II	BODY MEASUREMENTS OF EARLY ADOLESCENT GIRLS	(xxiii)
III	FORMULA USED FOR CALCULATING MODE	(xxvii)
IV	DEVELOPED INSTRUCTIONS FOR DRAFTING SALWAR PATTERN (A)	(xxix)
V	DEVELOPED INSTRUCTIONS FOR DRAFTING KAMEEZ PATTERN (B)	(xxxi)
VI	DEVELOPED INSTRUCTIONS FOR DRAFTING SKIRT PATTERN (C)	(xxxiv)
VII	DEVELOPED INSTRUCTIONS FOR DRAFTING SKIRT TOP PATTERN (D)	(xxxvi)
VIII	DEVELOPED INSTRUCTIONS FOR DRAFTING NIGHT GOWN PATTERN (E)	(xxxix)
IX	THE SELECTED DRESS DESIGNS	(xxxxi)
X	THE SELECTED MATERIALS	(xxxxvii)
XI	SCORE CARD USED TO EVALUATE THE FITNESS OF THE CONSTRUCTED GARMENTS	(xxxxxiii)
XII	SCORE CARD USED TO EVALUATE THE STYLES CREATED IN THE CONSTRUCTED GARMENTS	(xxxxxiv)

Introduction

INTRODUCTION

Clothing has served many purposes arising from diverse needs, fears and desires. Clothing refers to the various articles of apparel used to cover the body. Basically, it supplies the need for physical protection and more importantly provides a means of individual identity and social status through personal adornment. Thus clothing serves expressive as well as serviceable function protecting the individual psychologically as well as physically, says McJimsey (1976).

Adolescence is a period of life in which interests expand. They give more importance to becomingness, price, beauty and conformity as compared with durability and comfort. The early adolescence are extremely sensitive to opinion and approval of others. Adolescence express the need for conforming and belonging to their peer group by choosing clothing, that is, being worn by most of the others in the group. Conformity in clothing leads to the development of self-confidence that one acquires through being accepted by and identified with peers.

The girl and woman of today are active. The active girl or woman of today need clothing that is truly

functional in design-clothing that is suited to a specific activity whether it is for work or play. Clothing and fashion are of important concern during the adolescent period. Both fabric and construction should be durable to withstand whatever vigorous activities the adolescent participates in.

The younger generation often is the first to try the new. Increasing importance is being placed on fashion and individuality in expressing ones personality. Today young person seek to create an individual effect throughout the way, he or she combines the various fashion components. Fashion is the key to self-expression. A day should never go by that you don't select clothes, fragrance and make-up that express your special mood and attitude. Your style says so much about you before you even say a word, quotes Lauder cited by Nash (1994). Fashion is subject to never ending change, sometimes rapid, sometimes gradual. Women's apparel has always shown the most rapid rate of change, feel Stones and Samples(1985).

Style matters, but following fashion does'nt. People should wear what looks good on them. A style is tangible made up of a definite silhouette and details of design. Regardless of practicality, a style is considered a fashion if it is accepted by the majority of a specific

group at a given time and place for a specific occasion. Although styles come and go in terms of acceptance, a specific style always remains a style, whether it is currently in fashion or not, express Stone and Samples (1985).

A touch of novelty in accessories, color, line or texture within the framework of prevailing fashion is enough to create the feeling of individuality that the average consumers crave. Accessories usually give the finishing touch since they provide pep and sparkle in the garment. Fashion doesn't suit all the individuals. So it should be modified to suit the person, playing down parts of our body we are not happy about and accentuating the areas we like.

Hence the investigator felt the need to create various styles in the garment to suit the modern adolescent girl's needs. Keeping this in mind, the investigator has taken a study on creating styles in the selected garments for early adolescent girls. The research work is planned with the following objectives.

- Finding out the preference of adolescent girls regarding their choice in clothing.
- Taking and standardising the early adolescent girls body measurements.

- Creating styles for the selected outfits for early adolescent girls according to their preference.
- Constructing the selected outfits for the early adolescent girls using the standardised body measurements.
- Evaluating the constructed garments and the styles created for the selected outfits.

It is hoped that the study would help the adolescent girls in planning a good wardrobe with garments in different styles which suit them and also keeping in line with fashion. The investigator also hopes that this study would enable the garment designers to create designs and styles suitable for the consumer.

Review of Literature

II. REVIEW OF LITERATURE

The literature pertaining to the study are reviewed under the following headings :

- A. Importance of Clothing
- B. Adolescent Girl's Clothing
- C. Wardrobe Contents of Adolescent Girls
- D. The Concept of Fashion and Style
- E. Color and Design in Garments
- F. Creating Styles in Garments
- G. Importance of Sewing.

A. IMPORTANCE OF CLOTHING

People use clothing to create different impressions, expresses Rouse (1989). A well-dressed person would know that clothing is only a background and a reflection of self, not the personality, says Chambers (1961). Clothes are closely related to poise and self-confidence as well as comfort and protection, feel Rhodes and Samples (1959). The appropriateness of a costume, the becomingness of color, quality, style, neatness and cleanliness in clothing help to build self-confidence and even a sense of security, views Dantyagi (1974). Clothing and the various forms of body modification act as form of social communication, transmitting information about the social identity and activities of

the wearer, says Rouse (1989).

B. ADOLESCENT GIRLS CLOTHING

Adolescence is a period of transition-biological, psychological, social and economic. It is an exciting time of life, states Steinberg (1989). There are 3 periods in adolescence. Hurlock (1978) designates the years 10-12 as pre adolescence, 13-15 years as early adolescence and 17-21 years as late adolescence. With the onset of puberty girls who only a few months back showed no interest at all in the way they looked commonly began to show an interest in their clothes, hair, shoes, fingers, nails and general appearance, feels Cavendish (1969).

Adams and Gullotta (1983) say that adolescents spend considerable time with one another, the potential for influencing behaviour is immense. They become more conscious of grooming and personal appearance, particularly in terms of what will attract more attention from an admired boy or girl friend. Peer group acceptance and popularity often are equated with physical attractiveness and adequate wardrobe, feels Alexander (1977).

C. WARDROBE CONTENTS OF ADOLESCENT GIRLS

Bane (1973) feels that the fundamental function of the wardrobe is to serve the individual and ideally it will

be so well suited to the individual that she will be able to forget clothes and give her undivided attention to the work and pleasure of the day. A successful wardrobe should be well-balanced and co-ordinated. Tate and Glission (1961) say that a teenager's wardrobe must be built around the activities and occasions for which clothes are needed. These activities usually include school, church, parties, street or general wear, spectator and active sport, work at home or elsewhere lounging and sleeping.

Hoeflinn (1960) views that an adolescent girl begins to demand more clothes. Her wardrobe even include a formal or so, since girls are dating earlier and attending fancy parties soon. Ryan and Phillips (1965) declare that youthful clothes worn by teenage students are usually casual and allow freedom of movement. The clothes for the students will display a carefree spirit and a prettiness of design. Rouse (1989) says that a study of clothes worn by children and young people in the past revealed that for much of history they have been dressed like mini adults.

D. THE CONCEPT OF FASHION AND STYLE

Fashion promises many things to many people. Fashion is a standard by which we judge people and obviously the greater our knowledge of fashion trends the more subtle our judgement. The word 'Fashion' is mainly used to refer

clothing and styles of appearance says Rouse (1989). Webster (1973) defines fashion as prevailing custom, usage or style. The look of fashion is an intangible thing difficult to analyse, but easier to achieve, Mccalls Sewing Book (1984).

Fashion is a powerful force of constantly altering pattern of change and growth. Through the ways we use fashion, we reveal our own special personality and individuality, say Stone and Samples (1985). Fashion can be used to attract others, to indicate success, both social and economic and indicate leadership, and to identify with particular social group, feels Rachel Dardis (1966).

Hegde (1983) opines that style and fashion are continually changing, the changes are dictated by taste, by general trends and by the creative ideas of the dress designer. Style is the characteristic or distinctive appearance of a garment - the combination of features that makes it different from other garments. Some times certain characteristics are so special and individual within a large classification that they develop into their own style, say Stone and Sample (1985). Fisher (1973) feels that once a particular basic style is fitted to ones shape and size it can be used over and over again made up in totally different fabric type, design to create variety in wardrobe

of fashionable clothes.

E. COLOR AND DESIGN IN GARMENTS

The basic material with which the creator of any object works spoken of as the elements of design, consists of texture, line, shape and color. By assembling the various parts of her costume into a more or less harmonious whole, every individual presents a design in her appearance, says Evans (1957). The influence of fabric, color and design may either cause self-consciousness and fear or contribute to self-confidence and ease, feels Oerke (1957).

Design is a creative expression of an idea, states McJimsey (1976). Design should be selected because it improves the appearance of the fabric, is appropriate for its intended use and reflects or suits the personality of the owner, states Alexander (1977). The interest of the garment is determined by the figure type, says Oerke (1957). Combining styles and fabric in a flattering fashion requires the artful use of the 4 design elements-line, detail, texture and color, views Colton (1988). A design has unity when all lines, shapes, texture, color and values seem to belong together. Each element should express a similar idea to give all the design a well-related quality, a feeling of oneness or completeness, feel Lewis et al. (1957).

A good design shows an orderly arrangement of the material used and in addition enhances the beauty and charm of the finished product. The choice of intensity of color in clothes is usually influenced by a person's complexion, age, size, personality, status, income as well as by the occasion and the season. Soundararaj (1974) states that design involves the proper choice of form, color and arranging them aesthetically and tastefully.

Chambers and Moulton (1961) say that color is the 'spice' of the outfit. It is the connecting link between the individual parts of the outfit, such as shoes, dress, hat and gloves - color seems to have the power to vivify a situation. It seems to make the picture come to life, say Ryan and Philip (1968). Lippman and Erskine (1949) define the color as the sensation produced by rays of light on the eye. They have a vital influence on the effect of a garment design. Color impact can be powerful and is often striking when differences combine. Of the several elements that affects apparent figure size, color is one of the most influential, states Colton (1988).

Color is perhaps the most important factor in achieving real personality in clothes, expresses Oerke (1957). Young, active and vigorous people can pick and choose and can use to advantage clothing of either related

or contrasting color harmonies points out Soundararaj (1974). A young girl with a healthy completion can wear almost any color in dress, feel Erwin and Kinchen (1970). A knowledge of color and line must be applied to obtain successful combination of fabrics, say Rhodes and Samples (1959). A becoming color is one which makes one's skin look healthy, accenting the best features and minimising least desirable one, feels Oerke (1957).

F. CREATING STYLES IN GARMENTS

Every article of clothing is the personal art expression of people who created it. The whole activity of dress-making, sewing and embroidery is rightly conceived as one of the creative arts, says Lewis et-al. (1957). Hurlock (1978) suggests that creativity must be regarded as a process by which something new, either an idea or an object in a new form or arrangement is produced. Style in dress refers to the characteristic or distinct form, outline or shape an article possess, say Erwin and Kinchen (1970).

Although individuals and groups may innovate aesthetically and technically to create new styles of clothes, the process of fashion is the making out of particular style which are given a special status which are emulated. Creativity is sometimes seen as part of being fashionable, feels Rouse (1989). Style keeps changing, views

Anwani (1992). A new style takes over and frequently reverses a trend, returning to a previously experienced period of time for inspiration, in similar but never exactly the same manner. By its very nature it implies changes, it evolves and is only rarely a revolution, feel Lippman and Erskine (1974).

G. IMPORTANCE OF SEWING

Tailoring is an art with the help of which we can design clothes better, states Anwani (1980). Dressmaking satisfies ones unfulfilled desire by having the opportunity to design, and to play with colors and fabrics of different textures for the home and client, views Hegde (1983). Lester (1983) suggests that if we make our own clothes we can dictate the style and the standard, we can keep up with the fast turnover of ideas and we can wear exactly what we like, make our own statement and achieve it at a relatively low cost.

Latzke and Hostetter (1968) point out that the motive of home sewing is chiefly economy, although some women sew because they found in that activity, opportunity for creative expression and also the desire to get better fitting clothes and the desire to have a larger more fashionable wardrobe than would otherwise be financially possible. Bane (1973) states that like clothing manufacturing,

home sewing is a combination of art and science and learning to master these conflicting talent is largely responsible for the challenge as well as executing reward for home-sewing. By creating a new wardrobe tailored to fit ones specification, one can be free of the dictates of fashion, declares McCall's Sewing Book (1984).

Experimental Procedure

III. EXPERIMENTAL PROCEDURE

The experimental procedure adopted for the study consisted of the following aspects.

- A. Study of Garment Designs Suitable for Early Adolescent Girls
- B. Finding out the Opinion of the Adolescent Girls regarding their Garments
- C. Standardising the Body Measurements of the Early Adolescent Girls
- D. Developing Basic Patterns for the Selected Garments
- E. Creating and Introducing Styles in the Selected Garments
- F. Evaluation of the Constructed Garments
- G. Evaluation of Created Styles in the Selected Garments

A. STUDY OF THE GARMENT DESIGNS SUITABLE FOR EARLY ADOLESCENT GIRLS

Rouse (1989) points out that most women get to know about new fashions by looking in the shops, looking at what other women are wearing and also by reading newspaper and magazines. Therefore the investigator studied various fashion books and journals namely Femina, Womens era,

Clothes line, Chirag, Jasmine, Dressage and also visited boutique shops to get an idea about the prevailing garment styles and fashions suitable for the early adolescent girls.

**B. FINDING OUT THE OPINION OF THE ADOLESCENT GIRLS
REGARDING THEIR GARMENTS**

The procedure adopted to find out the opinion of the adolescent girls regarding their outfits comprised the following steps.

1. Selection of the sample.
2. Selection of the method.
3. Framing the interview schedule.
4. Conducting the survey.
5. Consolidation and analysis of data.

1. Selection of the sample

According to Mc Clave and Dietrich II (1989), how a sample is selected from a population is of vital importance in statistical inference because the probability of an observed sample will be used to infer the characteristics of the sampled population. Spiegel (1981) feels that one way in which a representative sample may be obtained is by a process called random sampling according to which each member of population has an equal chance of being included in the sample. Hence the investigator selected one hundred

adolescent girls from Avinashilingam Higher Secondary School, Coimbatore at random, as it was convenient for the investigator to collect the required information from the adolescent girls for the study.

2. Selection of the method

In social survey personnel interviewing is the most usual method of collecting data, feel Moser and Kalton (1980). According to Gupta (1988), personal interview gives a face to face contact with person from whom the information is to be obtained. The results obtained by personal interview is generally accurate and reliable as the enquiry is intensive and is conducted personally, say Shukla and Gulshan (1983). Hence the investigator selected direct personal interview method for collecting the information from the selected sample.

3. Framing the interview schedule

Cohen and Manion (1989) feel that success of any data collection largely depends on the proper drafting of the question pertaining to the survey. Moser and Kalton (1980) view that every surveyor should phrase his questions in simple, everyday language to avoid vagueness and ambiguity to use neutral wordings. Considering the above, the investigator framed an interview schedule to elicit information among the adolescent girls regarding their preference

in garments. The interview schedule includes the preference of adolescent girls regarding the garments, its colors combination, material, texture, textile design, styles and trimmings and decoration. The prepared interview schedule is given in Appendix I.

4. Conducting the survey

The collection of data is a crucial operation in the execution of a good research design. The quality of the research rests upon the quality of the data, feels Miller (1983). Therefore each individual was interviewed very carefully at their leisure time and the information was recorded.

5. Consolidation and analysis of data

According to Sidhu (1984), analysis of data comprises various approaches designed to dissect the phenomenon to their constituent parts with a view to obtain greater insight into specific aspects. Keeping this in mind, the collected information was consolidated and analysed systematically. The results are presented under the chapter Results and Discussions.

C. STANDARDISING THE BODY MEASUREMENTS OF EARLY ADOLESCENT GIRLS

The procedure adopted to standardise the body

measurements of the early adolescent girls comprised of the following steps :

1. Selection of the age group.
2. Selection of the sample.
3. Taking the body measurements
4. Standardising the body measurements

1. Selection of the age group

According to Alexander (1977), the adolescent years can be divided into 2 periods early adolescence (12-15 years) and adolescence (15-20 years). In early adolescence, there is a wide variety of interests, states Hurlock (1989). Hence the investigator selected the early adolescence period (12-15 years) for the study.

2. Selection of the sample

In simple random sampling, each member of the population under the study has an equal chance of being selected, say Cohen and Manion (1985). Based on the above, 100 early adolescent girls were selected from Avinashilingam Higher Secondary School, Coimbatore for the study because it was convenient for the investigator to take body measurements required for the selected outfits.

3. Taking the body measurements

To fit well, taking up measurements is absolutely

essential before stitching the garment, opines Subramaniam (1987). In order to construct garments that fit well, body measurements must be taken with precision, says Mathew (1985).

As suggested by Colton (1988), the girls were requested to wear proper foundation garments and to stand erect. As pointed out by Mathew (1985) and Myra Coles (1989), the following measurements were taken proeprly by keeping 2 fingers inbetween the tape and the body (Figure 1). The body measurements of adolescent girls are given in Appendix II.

- Bust measurement was taken around the fullest part of the bust with the tape kept straight at the back.
- Shoulder width was taken from the end of one shoulder blade to another shoulder blade.
- Waist measurement was taken around the waist keeping the tape parellel to the floor.
- Back waist length measurement was taken from the prominent bone at the base of the neck to the natural waist line
- Sleeve length was taken from the tip of the shoulder to the desired length.
- Arm circumference was measured around the arm to the desired length corresponding to the lower edge of the sleeve.

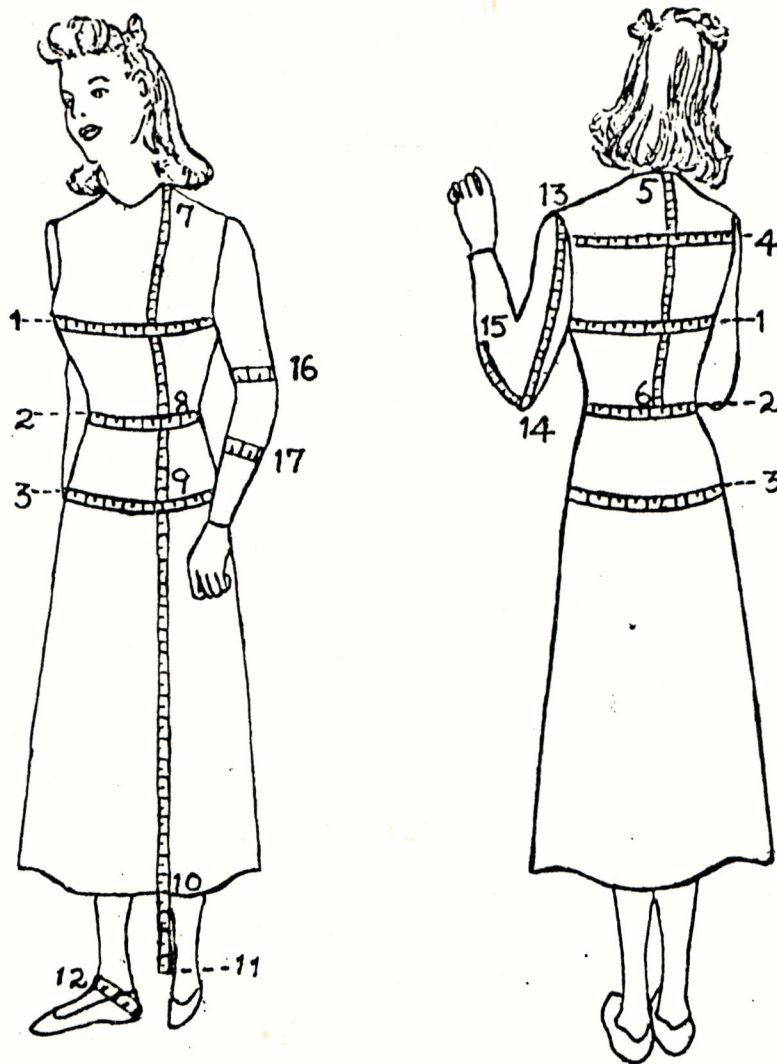


FIGURE - I
TAKING BODY MEASUREMENTS

- | | | | |
|------|-----------------------------|-------|------------------------------|
| 1 | - Chest measurement | 8-11 | - Waist to ankle |
| 2 | - Waist measurement | 12 | - Bottom |
| 3 | - Hip measurement | 13-14 | - Sleeve length-half |
| 4 | - Back width | 13-15 | - Sleeve length-three-fourth |
| 5-6 | - Back waist length | 16 | - Lower arm circumference |
| 7-10 | - Shoulder to kameez length | 17 | - Elbow circumference. |
| 7-11 | - Shoulder to ankle | | |
| 8-9 | - Waist to hip | | |
| 8-10 | - Waist to skirt length | | |

- Full length of the kameez was measured from highest point of the shoulder to the desired length.
- Hip measurement was taken around the fullest part of the hip.
- Full length for salwar was taken from waist to the ankle.
- Bottom was measured round the bottom of the pants
- Skirt length was taken from the waist line to the desired length.
- Night gown length was taken from the highest point of the shoulder to the ankle.

Thus the body measurements for the selected garments were taken and recorded.

4. Standardising the body measurements

Mee and Purdy (1987) feel that standardisation is important so that the designer is always working from the same base. Standardisation is matching after selection, say Moser and Kalton (1980).

The mode is often said to be the value which occurs most often in the data, that is with the highest frequency, views Gupta (1991). The mode obtained for each measurements was taken as the standard measurement. The formula used for obtaining the modal value is given in Appendix III. The standardised body measurement is present-

ed under the chapter Results and Discussions.

D. DEVELOPING BASIC PATTERNS FOR THE SELECTED GARMENTS

The procedure adopted to develop basic pattern for the selected garment comprised of the following steps.

1. Selection of the garments
2. Preparation of instructions for the selected garments
3. Drafting the basic patterns

1. Selection of the garments

From the survey, it was found that salwar and kameez, skirt and skirt top and night gown were preferred by majority of early adolescent girls for the daily wear. Hence the investigator selected salwar (A) and kameez(B), skirt (C) and skirt top (D) and night gown (E) for the study.

2. Preparation of instructions for the selected garments

The investigator studied the instructions for salwar kameez, skirt and skirt top, and night gown given by Zarapkar (-), Mathew (1985), Hegde(1983) and Anwani (1992) and prepared new instructions for the selected garments.

Mee and Purdy (1981) say that one of the greatest advantage of muslin pattern is that it gives an opportunity

to check the fit of the pattern. Hence the muslin patterns were constructed with the prepared new instructions. The investigator herself checked the fitness of the muslin patterns. Based on the results, slight modifications were made in the patterns and introduced the necessary changes in the instructions and developed new instructions for the selected garments.

3. Drafting the basic patterns

Drafting may be defined as a system of drawing patterns on the paper with mechanical precision, on the basis of body measurements, says Mathews (1985). Only basic body measurements are needed to determine the pattern type and size, feels Coles (1989). Hegde(1983) states that in order to have economy in cutting out the material, the garment draft is made on thick brown paper.

Keeping this in mind, the investigator drafted the basic pattern for the selected garments using the developed instructions and the standardised body measurements. The instruction used for preparing the basic patterns for salwar (A), kameez (B), skirt (C), skirt top (D) and night gown (E) are given in Appendix IV,V,VI,VII and VIII respectively.

E. CREATING AND INTRODUCING STYLES IN THE SELECTED GARMENTS

The procedure adopted to create and introduce styles in the selected garments comprised of the following steps.

1. Creating styles in the selected garments
2. Selecting the created styles for the garments
3. Preparing paper-patterns for the selected styles
4. Selection of the material
5. Preparation of the fabric
6. Cutting the material
7. Introducing the styles in the selected garments

1. Creating styles in the selected garments

McJimsey (1976) feel that style in the fashion world refers to the particular silhouette, fabric, trim or accessories used at a particular time. Keeping this in mind, the investigator referred many design magazines and developed forty five styles. The first fifteen styles were introduced in the salwar pattern. The second fifteen styles were introduced in the skirt and skirt top patterns and the last fifteen were introduced in the night gown pattern. The numbering of the developed designs and shown in Table I.

TABLE I
NUMBERING THE DEVELOPED DESIGNS

S.No.	Name of the garment		
	Salwar and kameez	Skirt and skirt top	Night gown
1	A ₁ B ₁	C ₁ D ₁	E ₁
2	A ₂ B ₂	C ₂ D ₂	E ₂
3	A ₃ B ₃	C ₃ D ₃	E ₃
4	A ₄ B ₄	C ₄ D ₄	E ₄
5	A ₅ B ₅	C ₅ D ₅	E ₅
6	A ₆ B ₆	C ₆ D ₆	E ₆
7	A ₇ B ₇	C ₇ D ₇	E ₇
8	A ₈ B ₈	C ₈ D ₈	E ₈
9	A ₉ B ₉	C ₉ D ₉	E ₉
10	A ₁₀ B ₁₀	C ₁₀ D ₁₀	E ₁₀
11	A ₁₁ B ₁₁	C ₁₁ D ₁₁	E ₁₁
12	A ₁₂ B ₁₂	C ₁₂ D ₁₂	E ₁₂
13	A ₁₃ B ₁₃	C ₁₃ D ₁₃	E ₁₃
14	A ₁₄ B ₁₄	C ₁₄ D ₁₄	E ₁₄
15	A ₁₅ B ₁₅	C ₁₅ D ₁₅	E ₁₅

2. Selecting the created styles for the garments

Ryan and Phillips (1965) say that, the acceptance of a particular style or fashion depends on its appeal to the customer. Hence the investigator arranged the developed designs according to the sequential order. Twenty five

adolescent girls from Avinashilingam Higher Secondary School, Coimbatore were requested to give their order of preference of designs for each garments separately. The data was collected and consolidated and analysed. From this, the first five most preferred designs were found for each garment. The number of the designs selected for the garments are given in Table II, and the designs are illustrated in Appendix IX.

TABLE II
SELECTED GARMENT DESIGNS

S.No.	Garment designs		
	Salwar and kameez	Skirt and skirt top	Night gown
1	A ₂ B ₂	C ₁ D ₁	E ₂
2	A ₇ B ₇	C ₆ D ₆	E ₄
3	A ₉ B ₉	C ₇ D ₇	E ₇
4	A ₁₂ B ₁₂	C ₁₁ D ₁₁	E ₁₁
5	A ₁₅ B ₁₅	C ₁₃ D ₁₃	E ₁₃

3. Preparing paper pattern for the selected styles

Paper patterns were prepared for the selected designs (A₂B₂, A₇B₇, A₉B₉, A₁₂B₁₂, A₁₅B₁₅, C₁D₁, C₆D₆, C₇D₇, C₁₁D₁₁, C₁₃D₁₃, E₂, E₄, E₇, E₁₁, E₁₃) by using its respective basic patterns.

4. Selection of material

Fabric is crucial to good fit. A successfully chosen fabric will complement the pattern design, flatter the wearer, perform according to the expectations and be of good quality for the money, states Colton (1988). Bold, clear colors are practical for everyday wear, feels Fisher (1973). Joseph (1980) declares that, an important aspect of cotton and cotton blended fabric is their ability to absorb moisture. This is a major factor in fabric comfort. The results of the survey also revealed that majority of the early adolescent girls preferred cotton and cotton blended material with coarse texture for salwar kameez, medium texture for skirt and skirt top and soft and medium texture for night gown.

Therefore the investigator purchased cotton and cotton blended materials for the selected outfits. The selected material are shown in Appendix X.

5. Preparation of the fabric

Colton(1988) points out that proper fabric preparations is an essential preliminary for cutting. Preparing the fabric is important in constructing a well-fitted garment. Fabric must be grain perfect, say Doongaji and Deshpande (1988). As pointed out by Warburton (1988), the fabric was straightened by pulling a cross wise thread and

cutting along the line. The material was preshrunk and all creases were removed by pressing.

6. Cutting the material

A garment's beauty and fitting depends on cutting, remarks Anwani (1992). A well-cut garment is half the struggle, says Wingo (1953). It is essential to use correct tools if the end results are to look professional, states Lester (1983). Following instructions laid down by Hegde (1983) and Mathews (1985) the fabric for salwar A₁ was placed on a long table. The pattern was placed on the fabric in the most economical way, keeping an eye on the straight grain. Pins are placed within seam allowances at right angles to the cut edges. The tracing wheel and the carbon method were used to mark the pattern lines on the fabric. Marking was done by inserting a dress makers carbon between the fabric and the paper pattern by just removing a few pins. The pins were pinned back to position and the tracing wheel was moved firmly on the paper pattern. Care was taken to mark all the details on the wrong side of the fabric. Cutting was done by long even strokes.

Following the same procedure, the other patterns were cut from their respective fabrics. Neckline and placket pieces were also cut for kameez, skirt and skirt top and night gown and kept aside.

7. Introducing the styles in the selected garments

Dress-making requires patience and planning. One can have the greatest pleasure, a rejoicing experience by creating something beautiful and useful. Preparing a dress is a stimulating experience which will cause oneself to feel proud of having produced something not only wearable but turning a ugly figure to look far better than original, views Hegde (1983). As suggested by Thangam Subramaniam (1987) and Doongaji and Deshpande (1975), the investigator constructed the selected outfits.

Salwar (A₂)

- Gathers were made for salwar (A₂) at the hip line. It was adjusted to hip measurement.
- The ankle band was attached at the ankle of salwars.
- The side seam of salwar on both sides were joined together.
- Finally the waist band material was joined at the hip line of the salwar.
- The waist line material was folded and stitched towards the wrong side of the garment for about 2.5 cm. Then a cord tape was inserted through the waist band for tyeing.
- Following the same procedure, the investigator constructed the salwars A₇, A₉, A₁₂ and A₁₅.

Kameez (B₂)

- Placed the front and back of the bodies pattern facing right sides together.
- The shoulder seams and the side seams of the front and back pattern were matched and stitched.
- The sleeve cap region of the sleeve was gathered by using machine stitches.
- The bottom and side seams of sleeve were stitched.
- The sleeve cap region and the armscye of the bodies were matched and stitched.
- The neckline and placket of the kameez was finished by fitting facing.
- The bottom of the kameez was finished by a row of stitches.
- Fastener was attached on the placket at shoulder line.
- On the overcoat front bodies tulusi beads and golden beads were attached in alteration in a spiral form.
- Placed the front and back of the overcoat pattern facing right sides together.
- The shoulder seam of the front and back overcoat pattern were matched and stitched.
- Lining material was attached to the wrong sides and all the edges were finished.
- The side seams of the front and back were joined.

Kameez (B7)

- One centre panel and 2 side panels for each sides arising from the armscye line were cut.
- On the centre panel contrast color couching was done diagonally in 2 directions forming diamonds.
- On a dark color material mirror work was done in a contrast color and attached in the centre at the waist line.
- Cross tucks were done at the two side panels which is to be attached to the centre panel.
- The side panels were joined to the respective pieces keeping the right sides facing together.
- A row of stitch was done on the right side near the stitch line
- Placed the front and back of the bodies pattern facing right sides together.
- The shoulder seams and the side seams of the front and back patterns were matched and stitched.
- The bottom of the sleeves and its side seams were stitched.
- The sleeve cap region of the sleeve and the armscye of the bodies were matched and stitched, taking few pleats at the sleeve cap.
- The neckline and placket pieces were finished by fitting facing.

- The bottom of the kameez was finished by a row of stitches
- Fastener was attached on the placket at the shoulder line.

Kameez (B₉)

- One centre panel and one side panel for each side arising from the armscye line were cut.
- Machine embroidery was done in square shape on the centre front bodies pattern. Alternate dark and light color embroidery threads were used in the design.
- Gold rings were attached on either side of the squares.
- The side panel on each side were attached by keeping right sides facing together.
- A row of stitch was done on the right side near the stitch line.
- Placed the front and back of the bodies pattern facing right sides together.
- The shoulder seams and side seams of the front and back patterns were matched and stitched.
- Gathers were made on the sleeve cap by the use of machine stitches.
- The bottom of the sleeves and the side seams were stitched.
- The sleeve cap region of the sleeve and the armscye of the bodice were matched and stitched.

- A stand collar was attached to the neckline at the back running partially to the front.
- The front neckline was finished by fitted facing.
- The bottom of the kameez was finished by a row of stitches.

Kameez (B₁₂)

- Patches were attached to the kameez near the neckline and the bottom.
- Placed the front and back of the bodice pattern facing the right sides together.
- The shoulder seams and the side seams of the front and back pattern were matched and stitched.
- The sleeve cap region of the sleeve was gathered by using machine stitches.
- The bottom of the sleeve and side seam were stitched.
- The sleeve cap region of the sleeves and the armscye of the bodice were matched and stitched.
- The neckline and placket of the kameez were finished by fitted facing.
- The bottom of the kameez was finished by a row of stitches
- Fastener was attached on the placket at the shoulder line.

Kameez (B₁₅)

- 3 panels were cut for the front bodice in straight cut arising from the shoulder line.
- They were joined together by keeping the right sides facing each other.
- Fabric painting was done in diamond shape with the alterations of black and gold color on the front bodice and on both sleeves.
- Placed the front and back of the bodice pattern facing right sides together.
- The shoulder seam and side seam of the front and back patterns were matched and stitched.
- The sleeve cap region of the sleeve was gathered by using machine stitches.
- The bottom of the sleeve and side seam were stitched.
- The sleeve cap region of the sleeves and the armscye of the bodice were matched and stitched.
- The neckline of the kameez was finished by fitted facing.
- The bottom of the kameez was finished by a row of stitches.
- The edges of the duppata were finished by 2 rows of stitches.

The constructed salwar and kameez are shown in Plate I.



A2B2

A7B7

A9B9

A12B12

A15B15

PLATE - I
SALWAR AND KAMEEZ

Skirt (C₁)

- Knife pleats were made at the waist line of skirt adjusting it to the waist measurements.
- The side seams of the skirts were joined.
- The opening of the skirt is finished with a continuous placket on one side of the skirt.
- The waist band is attached at the waist line of the skirt.
- The bottom of the skirt was finished by a row of machine stitches.
- Fasteners were attached on the placket and skirt band at the proper places.

Skirt Top (D₁)

- An extension of 5 cm is done in the centre front of the bodice front pattern.
- Placed the front and back of the bodice pattern facing right sides together.
- The shoulder seam and side seam of the bodice front and back pattern were matched and stitched.
- The sleeve cap region of the sleeve was gathered by machine stitches.
- The bottom and the side seam of the sleeves were stitched.
- The sleeve cap region of the sleeve and the armscye of the bodice were matched and stitched.

- The placket is finished by turning the placket extension to the inside edge and the raw edges were finished
- A long strip of the skirt material 2 cm in width was pleated and attached at the edge in between two layers of the peter pan collar.
- The collar was attached to the bodice block and the edge was finished by fitted facing.
- The bottom of the skirt top was finished by a row of machine stitches.
- Fasteners were made by using the skirt material.
- The fasteners were attached on the placket at the proper place at either side of the centre front.

Skirt (C₆)

- Gathers were made at the yoke line of the skirt front, adjusting it to the yoke measurement.
- Machine embroidery was made on the yoke in contrast color.
- Yoke was attached to the skirt front pattern.
- Eight rows or stitches were made for the back yoke for the width of the skirt.
- Two cm wide elastic was inserted into the stitches, the length of the elastic being three-fourth the width of the skirt back measurement.
- The elastic was fastened at the sides.
- Skirt back was attached to the back yoke.

- The side seams of the skirt were joined.
- Zip was attached to the left side of the skirt
- The bottom of the skirt was finished by a row of machine stitches.

Skirt top (D₆)

- The skirt top pattern was modified for shawl collar.
- Placed the front and back of the bodice pattern facing right sides together.
- The shoulder seam and side seam of the bodice front and back pattern were matched and stitched.
- The centre back of the collar was joined and attached to the back neckline.
- The sleeve cap region of the sleeve was gathered by machine stitches.
- The bottom and the side seam of the sleeves were stitched.
- The sleeve cap region of the sleeves and the armscye of the bodice were matched and stitched.
- Placed the shawl collar and bodice facing right sides together.
- The collar and the bodice were matched and stitched from one hem line to the other and turned to the wrong side.
- The bottom of the skirt top was finished by a row of machine stitches.

- Fasteners were attached at the placket at proper places.

Skirt (C7)

- A four-gore skirt was cut.
- The placket on the skirt front was finished for the full length with 2 strips of cloth.
- The centre back of the skirt was joined.
- The side seams of the skirt were joined.
- Waist band was attached to the waistline of the skirt.
- The bottom of the skirt was finished by a row of machine stitches.
- Fasteners were attached at the centre front of the skirt at the proper places.

Skirt top (D7)

- Placed the front and back of the bodice pattern facing right sides together.
- The shoulder seams and side seams of the front and back patterns were matched and stitched.
- The bottom of the sleeve and its side seam were stitched.
- The sleeve cap region of the sleeves and the armscye of the bodices were matched and stitched.
- The centre front was finished by turning the facing to the wrong side.

- The neckline was finished by fitted facing.
- The bottom of the skirt top was finished by a row of machine stitches.
- Fasteners were attached at the placket at proper places.

Skirt (C₁₁)

- Gathers were made at the waistline of the skirt adjusting it to the waist measurement
- The side seams of the skirt were joined.
- The opening of the skirt is finished with a continuous placket on one side of the skirt.
- The waist band is attached at the waist line of the skirt.
- The bottom of the skirt was finished by a row of machine stitches.
- Fasteners were attached on the placket and skirt band at the proper places.

Skirt top (D₁₁)

- Placed the front and back of the bodice patterns facing right sides together.
- The shoulder seam and side seam of the front and back patterns were matched and stitched.
- The armscye of the bodice and the neckline were finished by fitted facing.

- The bottom was finished by a row of machine stitches.
- A separate overcoat was stitched in a contrast color material and golden tassles were attached.

Skirt (C₁₃)

- A circular skirt was cut corresponding to the waist measurement.
- The side seams of the skirt were joined.
- The opening of the skirt was finished with a continuous placket of the left side of the skirt.
- A waist band was attached at the waist line of the skirt.
- The bottom of the skirt was finished by overlock stitch.
- Fasteners were attached on the placket.

Skirt top (D₁₃)

- The skirt top pattern was extended in the centre front for 5 cm on either side for shawl collar.
- Placed the front and back of the bodice pattern facing right sides together.
- The shoulder seams and side seams of the front and back patterns were matched and stitched.
- The sleeve cap region of the sleeve was gathered by machine stitch.

- The bottom of the sleeve and the side seams were stitched.
- The sleeve cap region of the sleeves and the armscye of the bodice were matched and stitched together
- The neckline and placket were finished by attaching a collar and facing material to the bodice block.
- The bottom of the skirt top had two 'V' shapes arising from the sides. It was finished by a fitted facing.
- Fasteners were attached on either side of the centre front.

The constructed skirts and skirt tops are shown in Plate II.

Night gown (E₂)

- A house coat was cut with an extension of 10 cm made on the centre front of the garment on either sides.
- Placed the front and back of the bodice pattern facing right side together.
- The shoulder seams and the sideseams of the front and back were matched and stitched.
- A collar was stitched by keeping right sides together and 3 sides stitched.
- Collar of checked material is placed between the facing and bodice material (facing right sides together) on the neckline at required distance. Stitching was done through out the centre front and back neckline



C1D1

C6D6

C7D7

C11D11

C13D13

PLATE - II
SKIRT AND SKIRT TOP

attaching the collar and facing.

- The bottom of the sleeves and the side seams were stitched.
- The sleeve cap region of the sleeves and the armscye of the bodice were matched and stitched together.
- The bottom of the night gown was finished by a row of machine stitches.
- The sash for tying was attached at the waistline.

Nightgown (E₄)

- A material for kafhan was cut.
- Hand embroidery was done on the bodice front pattern.
- Placed the front and back of the bodice pattern facing right sides together.
- The shoulder seams of the front and back were matched and stitched.
- The neckline was finished by fitted facing.
- The bottom of the nightgown was finished by row of machine stitches.
- Keeping the wrong sides facing together a row of stitches were made on either side of the night gown at the required width leaving a opening at the top for the armhole.

Night gown (E7)

- Gathers were made at the neckline of the front bodice of the night gown.
- Lace was attached to the neckline.
- The neckline of the back was finished by fitted facing.
- Placed the front and back of the bodice pattern facing right sides together.
- The shoulder seams and side seams of the front and back were matched and stitched.
- The bottom of the sleeves and side seams were stitched.
- The sleeve cap region of the sleeves and the armscye of the bodice were matched and stitched together.
- The bottom of the nightgown was finished by a row of machine stitches.

Night gown (E11)

- Gathers were made at the yoke line on the front bodice of the night gown.
- The yoke is attached on the front bodice of the night gown and the top edge is turned in and finished.
- Rick-rack lace was attached to the edge of the yoke.
- The back bodice block was gathered and attached to a belt.
- Shoulder straps were attached onto the front and back on either sides

- Rick-rack lace was attached to the edges of the short sleeves.
- Sleeve cap region was gathered by machine stitches.
- Sleeve cap region of the sleeve and shoulder strap of bodice were matched and stiched together.
- The raw edges of the armscye were finished by a bias strip.
- The side seams of the night gown were matched and stitched.
- The bottom of the night gown was finished by a row of machine stitches.

Night gown (E₁₃)

- 2.5 cm width tucks were made in rows on either side of the front bodice pattern released at different heights.
- Hand embroidery of contrast colors were made in between alternate tucks.
- Placed the front and back of the bodice pattern facing right sides together.
- The shoulder seams and the side seams of the back and front patterns were matched and stitched.
- To the edge of the collar pleated lace was attached.
- Collar was attached to the neckline of the night gown.
- The bottom of the sleeves and the side seams were stitched.

- The sleeve cap region of the sleeves and the armscye of the bodice were matched and stitched together.
- The placket is finished by turning the facing to the wrong side.
- Fasteners were attached on the placket at proper places.
- The bottom of the night gown was finished by row of machine stitches.

The constructed night gowns are shown in Plate III.

F. EVALUATION OF THE CONSTRUCTED GARMENTS

In order to evaluate the constructed garments fifty judges comprising the post graduate students and staff of Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore were selected. Five adolescent girls whose body measurements were similar to the standardised body measurements were chosen from the same institution.

A score card was prepared to evaluate the fitness of the constructed garment. The prepared score card is given in Appendix XI. The prepared score card was given to the selected 50 judges and they were requested to evaluate the fitness of the constructed garments.



E2

E4

E7

E11

E13

PLATE - III

NIGHT GOWN

First the girls were requested to wear salwar and kameez A₂B₂, A₇B₇, A₉B₉, A₁₂B₁₂ and A₁₅B₁₅ on smooth fitting garments for evaluation as shown in the Plate I. Then the same girls were requested to wear skirt and skirt top C₁D₁, C₆D₆, C₇D₇, C₁₁D₁₁ and C₁₃D₁₃ as shown in Plate II. Again they were requested to wear night gown E₂, E₄, E₇, E₁₁ and E₁₃ as shown in Plate III.

The data was collected, consolidated and analysed systematically. The results of the evaluation of the constructed garments are presented and discussed under the chapter Results and Discussions.

G. EVALUATION OF CREATED STYLES IN THE SELECTED GARMENTS

In order to evaluate the created styles in the selected garments 50 judges comprising the post graduate students of Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore were selected.

The constructed garments A₂B₂, A₇B₇, A₉B₉, A₁₂B₁₂, A₁₅B₁₅, C₁D₁, C₆D₆, C₇D₇, C₁₁D₁₁, C₁₃D₁₃, E₂, E₄, E₇, E₁₁ and E₁₃ were displayed properly for evaluation.

A score card was prepared to evaluate the styles created in the selected garments. The prepared score card is given in Appendix XII. The prepared score card was given

to the selected judges and they are requested to evaluate the styles created for the selected garments.

The data was collected, consolidated and analysed systematically. The results of the evaluation of the styles created for the selected garments are discussed under the chapter Results and Discussions.

Results and Discussion

IV. RESULTS AND DISCUSSION

The results of the investigation conducted to create styles in the selected garments are presented and discussed under the following headings.

- A. Opinion of the Adolescent Girls regarding their Outfits.
- B. Standardising the Body Measurements of Early Adolescent Girls
- C. Evaluation of the Constructed Garments.

A. OPINION OF THE ADOLESCENT GIRLS REGARDING THEIR OUTFITS

The information obtained from 100 adolescent girls are discussed under the following headings.

- 1. Preference of outfits.
- 2. Preference of color harmonies.
- 3. Preference of material.
- 4. Preference of texture of the material.
- 5. Preference of textile design.
- 6. Preference of styles in the garment.
- 7. Types of styles preferred.
- 8. Preference of trimmings and decorations.

1. Preference of outfits

The list of outfits preferred by adolescent girls for their daily wear is given in Table III and Figure II.

TABLE III
PREFERENCE OF OUTFITS

S.No.	Name of the outfit	No. of girls stating (in percentage)
1.	Salwar and kameez	99
2.	Skirt and Skirt top	94
3.	Trouser	10
4.	Night gown	97

Table III shows that salwar and kameez were preferred by 99 per cent of the girls for their daily wear. Skirt and skirt top was preferred by 94 per cent of the girls and nightgown by 97 per cent of the girls. Trousers were preferred by only 10 per cent of the girls for their daily wear. Hence it would be concluded that the majority of the adolescent girls preferred salwar and kameez, skirt and skirt top and night gown for their daily wear.

PREFERENCE OF OUTFITS

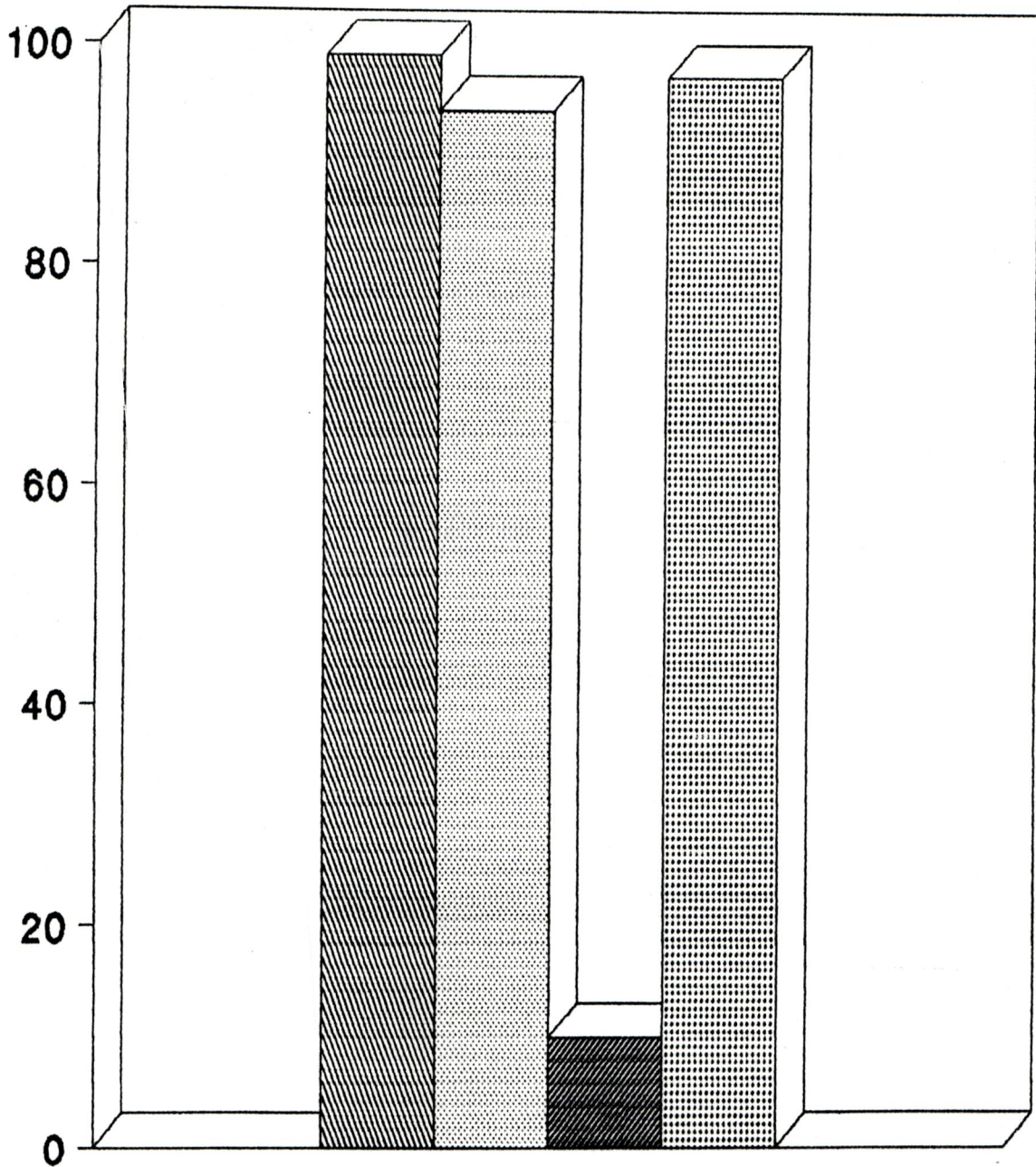






FIGURE II

- | | |
|---|---|
|  Salwar and kameez |  Skirt and Skirt top |
|  Trousers |  Night gown |

2. Preference of color harmonies

The color harmonies preferred by the adolescent girls are given in Table IV and Figure III.

TABLE IV
PREFERENCE OF COLOR HARMONIES

Name of the outfits	Number of girls stating (in percentage)			
	Monochromatic colors	Anologous colors	Complimentary colors	Neutral colors
Salwar and Kameez	57	13	12	20
Skirt and Skirt top	55	23	30	60
Nightgown	64	15	7	15
Trousers	8	-	2	-

From Table IV, it is evident that monochromatic colors are preferred for salwar kameez by 57 per cent of the girls, monochromatic and neutral colors were preferred for skirt and skirt top by 55 and 60 per cent of the girls respectively, monochromatic colors were preferred for nightgown by 64 per cent of the girls. Hence it could be concluded that majority of the adolescent girls preferred monochromatic colors for salwar kameez and night gown and monochromatic and neutral colors for skirt and skirt tops.

PREFERENCE OF COLOR HARMONIES

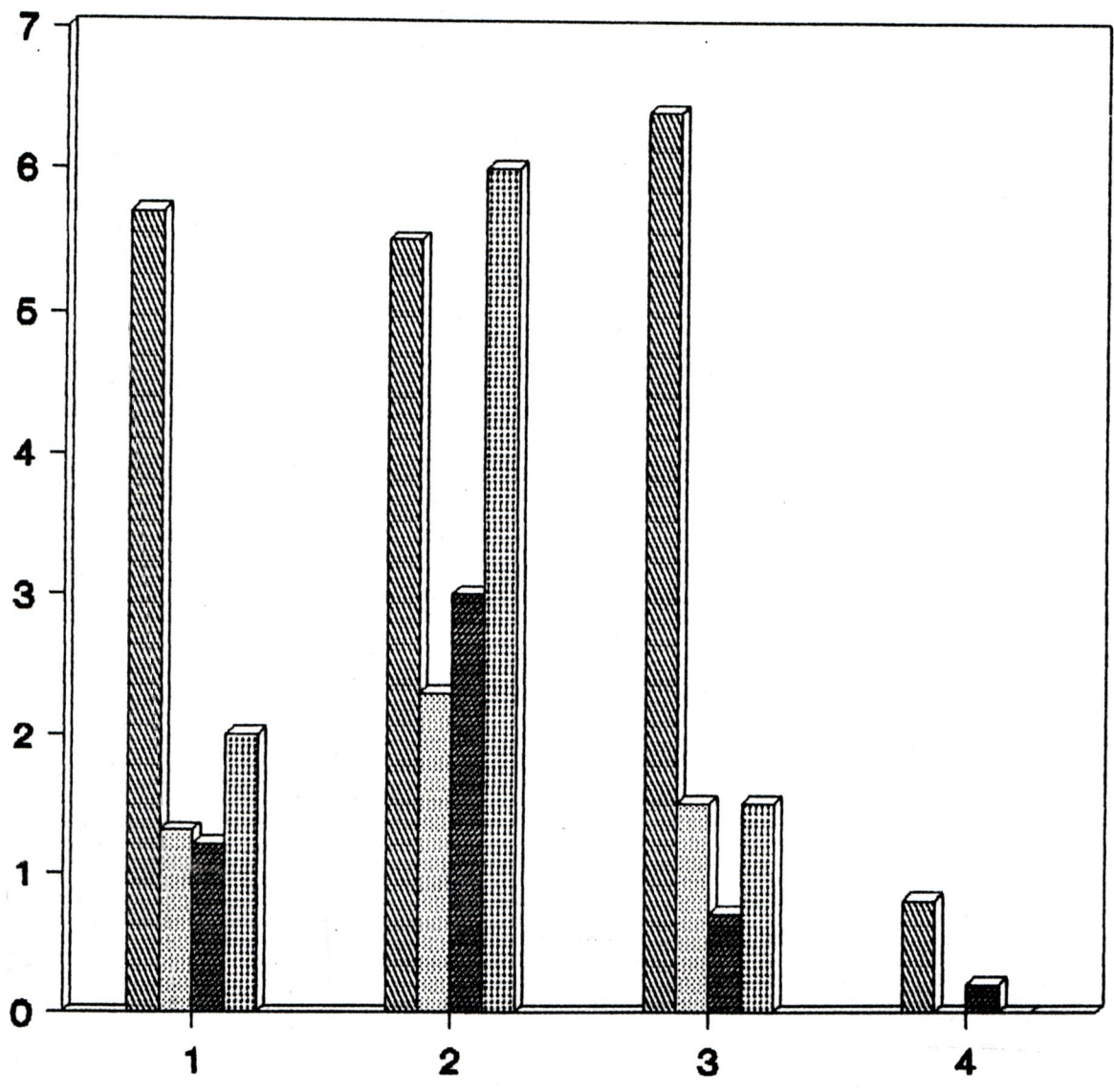






FIGURE III.

 Monochromatic	 Analogous
 Complimentary	 Neutral

1 - Salwar kameez

3 - Night gown

2 - Skirt and Skirt top

4 - Trouser

3. Preference of material

The materials preferred for various garments by the adolescent girls are given in Table V.

TABLE V
PREFERENCE OF MATERIAL

Materials	Number of girls stating (in percentage)			
	Salwar and Kameez	Skirt and Skirt top	Night gown	Trousers
Cotton	65	58	77	-
Blends	50	52	65	-
Handloom	7	6	4	5
Khadi	4	10	3	-
Silk	10	10	4	-
Nylon	2	18	2	-
Polyester	10	-	4	-
Flannel	-	-	-	-
Denim	-	1	-	3
Cordurouy	-	4	-	2

From Table V, it is understood that cotton and cotton blends were preferred for salwar and kameez by 65 and 50 per cent of the girls respectively. Cotton and cotton blends were preferred for skirt and skirt top by 58 and 52 per cent of the girls respectively. Cotton and

cotton blends were preferred for night gown by 77 and 65 per cent of the girls respectively. Hence it could be concluded that majority of the girls preferred pure cotton and cotton blends for salwar and kameez, skirt and skirt top and night gown.

4. Preference of texture of the material

The texture of the material preferred by the adolescent girls are shown in Table VI and Figure IV.

TABLE VI
PREFERENCE OF TEXTURE OF THE MATERIAL

Name of the outfits	Number of girls stating (in percentage)		
	Soft	Medium	Coarse
Salwar and Kameez	4	40	76
Skirt and Skirt top	28	70	12
Nightgown	58	52	2
Trousers	2	53	1

Table VI shows that soft and medium texture were preferred for night gown by more than 50 per cent of the girls, medium texture for skirt and skirt top by 70 per cent of the girls and coarse texture for salwar and kameez by 76 per cent of the girls. Hence it could be concluded that

PREFERENCE OF TEXTURE OF THE MATERIAL

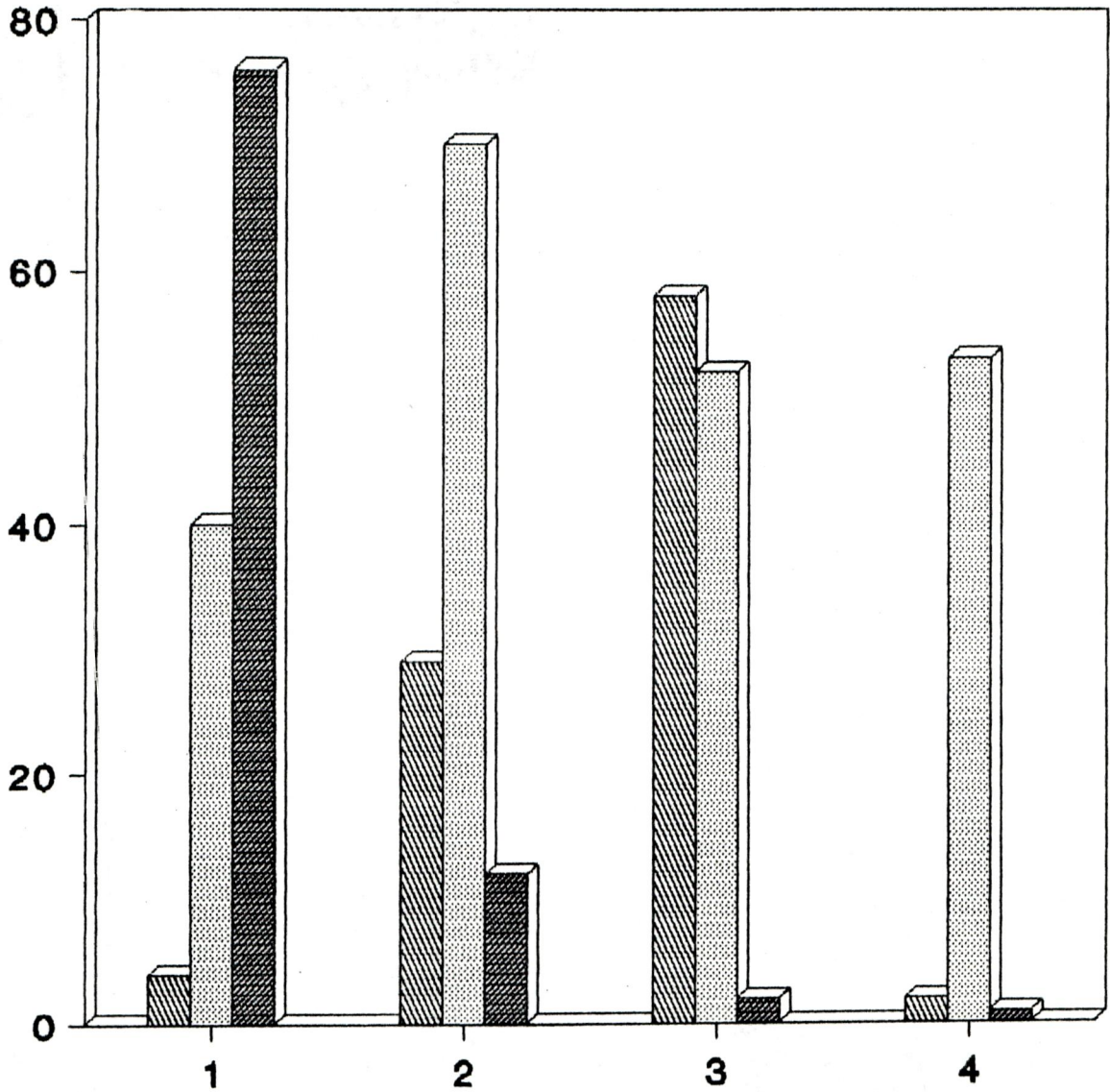
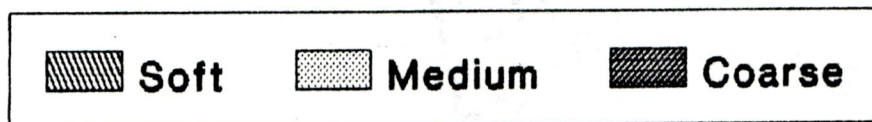


FIGURE IV.



1 - Salwar kameez
2 - Skirt and Skirt top

3 - Night gown
4 - Trouser

majority of the girls preferred coarse texture for salwar and kameez, medium texture for skirt and skirt top and soft and medium texture for night gown.

5. Preference of textile design

The designs preferred by adolescent girls for their daily wear are given in Table VII.

TABLE VII

PREFERENCE OF TEXTILE DESIGN

Name of the Garment	Number of girls stating (in percentage)										
	Woven Design						Printed Design				
	Plain	Floral	Geometric	Dots	Lines	Checks	Floral	Geometric	Lines	Checks	Dots
Salwar and Kameez	82	-	1	-	-	-	23	10	8	7	18
Skirt and Skirt top	76	-	-	2	-	-	71	93	17	33	38
Night gown	95	-	-	-	-	-	13	2	8	8	71
Trousers	45	-	-	-	-	-	5	-	-	2	2

From Table VII, it is clearly evident that plain woven design was preferred for salwar and kameez, skirt and skirt top and night gown by more than 75 per cent of the girls and for trousers by 45 per cent of the girls. Among the printed designs, floral design was preferred for salwar and kameez by 23 per cent of the girls, floral and geometric design for skirt and skirt top and dots for nightgown by more than 70 per cent of the girls. Hence it could be concluded that majority of the girls preferred plain woven and printed floral design for salwar and kameez, plain woven and printed floral and geometric design for skirt and skirt top, plain woven and printed dots for nightgown and plain woven design for trousers.

6. Preference of styles in the garments

Ninety six per cent of the girls preferred styles for their garments whereas four per cent of the girls did not prefer any styles for their garment.

7. Types of styles preferred

The different styles preferred by the adolescent girls are shown in Table VIII.

TABLE VIII
TYPES OF STYLES PREFERRED

Styles	Number of girls stating (in percentage)			
	Salwar and kameez	Skirt and skirt top	Night gown	Trousers
Yoke	78	65	70	3
Overcoat	75	73	23	-
Duppatta	67	15	-	-
Patches	80	-	4	-
Flare	90	81	-	-
Flare with godets	12	18	-	-
Flare with slit	8	-	-	-
Umbrella cut	16	75	-	-
House coat	-	-	75	-
Collar	66	89	88	-
Puff sleeve	92	82	30	-
Kafthan	-	-	65	-

From the above table, it is evident that yoke was preferred for salwar and kameez, skirt and skirt top and night gown by more than 65 per cent of the girls. Overcoat was preferred for salwar and kameez and skirt and skirt top by more than 73 per cent of the girls. Duppatta

was preferred for salwar and kameez by 67 per cent of the girls. Patches were preferred for salwar and kameez by 80 per cent of the girls. Flare was preferred for salwar and kameez and skirt and skirt top by more than 80 per cent of the girls. Flare with godets was preferred for salwar and kameez and skirt and skirt top by less than 20 per cent of the girls. Flare with slit was preferred for salwar and kameez by 8 per cent of the girls. Umbrella cut was preferred for skirt and skirt top by 75 per cent of the girls. House coat was preferred for night gown by 75 per cent of the girls. Collar was preferred for salwar and kameez, skirt and skirt top and night gown by more than 65 per cent of the girls. Puff sleeve was preferred for salwar and kameez, and skirt and skirt top by more than 80 per cent of the girls. Kafthan was preferred for nightgown by 65 per cent of the girls.

Hence it could be concluded that majority of the girls preferred yoke, overcoat, duppatta, patches, flare, collar and puff sleeve for salwar and kameez, yoke, overcoat, flare, umbrella cut, collar and puff sleeve for skirt and skirt top, yoke, housecoat, collar and kafthan for night gown.

8. Preference of trimmings and decoration

The trimmings and decoration preferred by the adolescent girls for their garments is given in Table IX.

TABLE IX
PREFERENCE OF TRIMMINGS AND DECORATION

Trimmings and Decoration	Number of girls stating (in percentage)			
	Salwar and kameez	Skirt and skirt top	Night gown	Trousers
Frills	-	70	32	-
Tucks	68	-	71	2
Smocking	-	-	30	-
Applique	13	13	7	41
Lace	5	-	90	-
Fancy button	26	63	3	23
Embroidery	72	52	83	11
Fabric paint	77	3	2	-
Mirror work	56	8	11	-
Bead work	60	21	15	-
Metallic rings	59	19	-	-
Sequins	7	12	-	-
Fringes	9	69	1	-

Table IX clearly shows that frills were preferred for skirt and skirt top by 70 per cent of the girls. Tucks were preferred for salwar and kameez and nightgown by more than 65 per cent of the girls. Smocking was preferred for night gown by 30 per cent of the girls. Applique was preferred for trousers by 41 per cent of the girls. Lace was preferred for nightgown by 90 per cent of the girls. Fancy buttons were preferred for skirt and skirt top by 63 per cent of the girls. Embroidery was preferred for salwar and kameez, skirt and skirt top and nightgown by more than 50 per cent of the girls. Fabric paint was preferred for salwar and kameez by 77 per cent of the girls. Mirror work was preferred for salwar and kameez by 56 per cent of the girls. Bead work was preferred for salwar and kameez by 60 per cent of the girls. Metallic rings were preferred for salwar and kameez by 59 per cent of the girls. Sequins was preferred for salwar and kameez and skirt and skirt top by less than 15 per cent of the girls. Fringes were preferred for skirt and skirt top by 69 per cent of the girls.

Hence it could be concluded that majority of the adolescent girls preferred tucks, embroidery, fabric paint, mirror work, bead work, and metallic rings for salwar and kameez, frills, fancy button, embroidery and fringes for skirt and skirt top, and tucks, lace and embroidery for night gown.

B. STANDARDISING THE BODY MEASUREMENTS OF EARLY ADOLESCENT GIRLS

The standardised body measurements of early adolescent girls are given in Table X.

TABLE X
STANDARDISED BODY MEASUREMENTS OF
EARLY ADOLESCENT GIRLS

S.No.	Name of the measurement	Range (in cms)	Modal value (in cms)
1	Bust circumference	70-95	79
2	Waist circumference	55-95	67
3	Hip circumference	65-105	89
4	Shoulder width	25-45	37
5	Back waist length	25-40	36
6	Shoulder to kameez length	90-120	105
7	Shoulder to ankle	115-145	133
8	Waist to hip	10-25	20
9	Waist to skirt length	55-85	73
10	Waist to ankle	80-105	96
11	Sleeve length - half	22-28	25
12	Sleeve length-three fourth	30-45	39
13	Lower arm circumference	15-35	23
14	Elbow circumference	15-30	23
15	Bottom	27-35	31

Table X shows the body measurements of early adolescent girls. The modal value of each measurement was considered as the standard measurement.

The range of bust circumference was 70-95 cms and the modal value was 79 cm. The range of waist circumference was 55-95 cm and the modal value was 67 cm. The range of hip circumference was 65-105 cm and the modal value was 89 cm. The range of shoulder width was 25-45 cm and the modal value was 37 cm. The range of back waist length was 25-40 cm and the modal value was 36 cm. The range of shoulder to kameez length was 90-120 cm and the modal value was 105 cm. The range of shoulder to ankle measurement was 115-145 cm and the modal value was 133 cm.

The waist to hip measurement ranged between 10-25 cm and the modal value was 20 cm. The waist to skirt length measurement ranged between 55-85 cm and the modal value was 73 cm. The waist to ankle measurement ranged between 80-105 cm and the modal value was 96 cm. The sleeve length - half measurement ranged between 22-28 cm and the modal value was 25 cm. The sleeve length three-fourth measurement ranged between 30-45 cm and the modal value was 39 cm. The lower arm circumference measurement ranged between 15-35 cm and the modal value was 23 cm. The elbow circumference measurement ranged between 15-30 cm and

the modal value was 23 cm. The bottom measurement ranged between 27-35 cm and the modal value was 31 cm.

Hence it would be concluded that the standardised body measurements of early adolescent girls are as follows. Bust circumference 79 cm, waist circumference 67 cm, hip circumference 89 cm, shoulder width 37 cm, back waist length 36 cm, shoulder to kameez length 105 cm, shoulder to ankle 133 cm, waist to hip 20 cm, waist to skirt length 73 cm, waist to ankle 96 cm, sleeve length - half 25 cm, sleeve length - three-fourth 39 cm, lower arm circumference 23 cm, elbow circumference 23 cm, and bottom 31 cm.

C. EVALUATION OF THE CONSTRUCTED GARMENTS

The details of the evaluation of the constructed garments are as follows :

1. Fitness of the constructed garments.
2. Effectiveness of the styles created in the constructed garments.

1. Fitness of the constructed garment

The evaluation of the fitness of the constructed garments are given in Table XI.

TABLE A1

EVALUATION OF THE FITNESS OF THE CONSTRUCTED GARMENTS

Type of garment	Design No	Ease			Grain			Set			Line			Balance			Total Scores			Rank
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	
		Proper fit	loose fit	light fit	Straight grain	Gross grain	Bias grain	Very good	Good	Fair	Smooth	Fairly Smooth	Not Smooth	Balanced	moderately balanced	Non Balanced	1	2	3	
Jacket	A2	250	-	-	250	-	-	150	45	0	200	30	-	250	-	-	1100	95	5	1
	A7	250	-	-	250	-	-	70	78	10	190	36	-	230	12	-	990	126	10	3
	A9	250	-	-	250	-	-	100	72	6	220	18	-	240	6	-	1060	96	6	2
	A12	230	12	-	250	-	-	60	78	12	140	60	2	190	36	-	870	186	14	5
	A15	210	24	-	250	-	-	120	54	8	160	42	4	200	30	-	940	150	12	4
Blouse	B2	250	-	-	250	-	-	185	30	3	200	24	2	240	6	-	1125	60	8	1
	B7	150	60	-	250	-	-	40	96	10	190	36	-	200	30	-	830	222	10	5
	B9	235	15	-	250	-	-	120	54	8	200	30	-	220	18	-	1025	117	8	2
	B12	200	9	7	250	-	-	80	66	12	150	60	-	190	36	-	870	171	19	4
	B15	185	30	3	250	-	-	165	30	7	180	42	-	175	36	3	955	138	13	3
Dress	C1	250	-	-	250	-	-	100	60	10	200	24	2	240	6	-	1040	90	18	2
	C6	180	12	10	250	-	-	95	63	10	190	36	-	250	-	-	965	114	20	3
	C7	150	30	10	250	-	-	100	72	6	170	42	2	240	6	-	930	150	18	5
	C11	180	12	10	250	-	-	100	60	10	200	36	-	220	18	-	950	120	20	4
	C13	230	12	-	250	-	-	175	45	-	200	30	-	230	12	-	1085	99	-	1
Top	D1	230	12	-	250	-	-	100	72	6	230	12	-	190	12	8	1000	108	14	2
	D6	200	30	-	250	-	-	90	72	8	200	30	-	220	18	-	960	150	8	4
	D7	180	36	2	250	-	-	105	69	6	110	72	4	190	36	-	835	213	12	5
	D11	220	12	2	250	-	-	100	57	11	180	36	2	220	12	2	970	117	17	3
	C13	230	12	-	250	-	-	150	45	5	190	36	-	240	6	-	1060	99	5	1
Suit	E2	250	-	-	250	-	-	230	12	-	170	48	-	200	24	2	1100	84	2	1
	E4	130	12	10	250	-	-	150	24	12	200	30	-	250	-	-	980	66	32	5
	E7	230	10	-	250	-	-	140	60	2	200	24	2	250	-	-	1070	24	4	2
	E11	235	9	-	250	-	-	100	72	6	180	42	-	245	3	-	1010	126	6	4
	E13	195	33	-	250	-	-	150	45	5	190	35	-	235	9	-	1020	123	5	3

From Table XI, it is clear that all the constructed salwars secured maximum scores for proper fit in ease, straight grain in grain, smooth in line, and balance in balance. The salwars A₂, A₉ and A₁₅ secured maximum scores for very good and salwars A₇ and A₁₂ secured maximum scores for good in set. Based on the total scores, it is proved that there is difference in fitness among the constructed salwars. The salwars A₂, A₉ and A₇ ranked first, second and third respectively in fitting.

Hence it could be concluded that all the constructed salwars are in perfect ease, straight grain, very good set, smooth line and balance. This proved that all the constructed salwars are fitting properly. Though all the salwars are fitting properly, salwar A₂ ranked first followed by A₉ and A₇ the second and third respectively.

Regarding the kameez, all the constructed kameez secured maximum scores for proper fit in ease, straight grain in grain, smooth in line, and balance in balance. The kameez B₂, B₉, B₁₂ and B₁₅ secured maximum scores for very good in set and kameez B₇ secured maximum scores for good in set. Based on the total scores, it is proved that there is difference in fitness among the constructed kameez. The kameez B₂ ranked first, B₉ ranked second and B₁₅ ranked third.

Hence it could be concluded that all the constructed kameez are in perfect ease, straight grain, very good set, smooth line and balance. This proved that all the constructed kameez are fitting properly. Though all the kameez are fitting properly kameez B₂ ranked first, B₉ and B₁₅ ranked second and third respectively.

Regarding the skirts, all the constructed skirts secured maximum scores for proper fit in ease, straight grain in grain, very good in set, smooth in line and balanced in balance. Based on the total scores, it is proved that there is difference in fitness among the constructed skirts. The skirt C₁₃ ranked first and C₁ and C₆ ranked second and third respectively.

Hence it could be concluded that all the constructed skirts are in perfect ease, straight grain, very good set, smooth line and balance. This proved that all the constructed skirts are fitting properly. Though all the skirts are fitting properly, skirt C₁₃ ranked first, followed by C₁ the second and C₆ the third.

Regarding the skirt tops, all the constructed skirt tops secured maximum scores for proper fit in ease, straight grain in grain, very good in set, smooth in line and balance in balance. Based on the total scores, it is

proved that there is difference in fitness among the constructed skirt tops. The skirt top D₁₃ ranked first, D₁ ranked second and D₁₁ ranked third.

Hence it could be concluded that all the constructed skirt tops are in perfect ease, straight grain, very good set, smooth line and balance. This proved that all the constructed skirt tops are fitting properly. Though all the skirt tops are fitting properly, skirt top D₁₃ ranked first followed by D₁ the second and D₁₁ the third.

Regarding the nightgowns, all the constructed nightgowns secured maximum scores for proper fit in ease, straight grain in grain, very good in set, smooth in line and balance in balance. Based on the total scores, it is proved that there is difference in fitness among the constructed nightgowns. The nightgown E₂ ranked first, E₇ ranked second and E₁₃ ranked third.

Hence it could be concluded that all the constructed nightgowns are in perfect ease, straight grain, very good set, smooth line and balance. This proved that all the constructed nightgowns are fitting properly. Though all the nightgowns are fitting properly, nightgown E₂ ranked first, followed by E₇ the second and E₁₃ the third.

2. Effectiveness of the styles created in the constructed garments

The effectiveness of the styles created in the constructed garments are given in Table XII.

TABLE XII

EVALUATION OF THE STYLES CREATED IN THE CONSTRUCTED GARMENTS

S.No	Particulars	Salwar and kameez										Skirt and skirt top										Night gown													
		A ₁ B ₂		A ₁ B ₇		A ₁ B ₉		A ₁ B ₁₂		A ₁ B ₁₅		C ₁ D ₁		C ₁ D ₆		C ₁ D ₇		C ₁ D ₁₁		C ₁ D ₁₃		E ₂		E ₄		E ₇		E ₁₁		E ₁₃					
		G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P						
1	Styles created	235	9	175	45	170	42	190	36	225	12	1	235	9	180	42	145	57	2	145	63	200	30	215	21	200	30	190	33	1	190	36	240	6	
2	Originality in design	245	3	180	42	190	36	220	18	160	48	2	235	9	195	33	160	48	2	140	66	240	6	215	21	190	36	200	24	2	220	18	220	18	
3	Suitability of design	235	9	160	54	155	57	220	18	180	42	-	240	6	210	24	150	54	2	135	69	230	12	220	18	170	48	190	36	200	30	200	30	220	18
4	Placement of decoration	240	6	190	33	140	60	210	24	185	39	-	245	3	200	30	140	60	2	135	63	210	24	190	36	170	48	190	36	210	24	220	18	220	18
5	Simplicity in design	245	3	185	36	175	42	220	18	235	9	-	240	6	225	15	170	42	2	175	45	240	6	200	30	220	18	190	36	230	12	240	6	240	6
6	Selection of material	225	15	175	42	155	51	220	18	200	30	-	240	6	235	9	200	27	1	140	66	240	6	220	18	220	18	200	30	195	33	230	12	230	12
7	Trimmings & Decoration	220	18	180	42	170	42	190	36	195	33	-	230	12	220	18	165	48	1	140	66	240	6	150	60	225	15	200	30	205	27	200	30	205	27
8	Color combination	215	21	150	54	145	54	225	15	220	18	-	250	-	225	15	155	57	-	195	33	250	-	205	27	210	24	225	15	210	24	225	15	225	15
9	General Appearance	220	18	170	42	140	60	235	9	200	30	-	245	3	230	12	145	57	2	180	36	250	-	225	15	170	48	230	12	210	24	220	18	220	18
Total scores		2080	102	1565	390	1440	444	1930	192	1800	261	3	2160	54	1920	198	1430	450	14	1385	507	2100	90	1840	246	1775	285	1815	252	3	1870	228	2015	141	
Rank		1		4		5		2		3		1		3		4		5		2		3		5		4		2		1					

From Table XII, it is clear that all the constructed garments secured maximum scores for good regarding the styles created, originality in design, suitability of design, placement of decoration, simplicity in design, selection of material, trimmings and decoration, color combination and general appearance.

Considering the total scores, it is proved that there is difference in the total effect among the constructed garments. Among all the salwar and kameez, the salwar kameez A_2B_2 ranked first, $A_{12}B_{12}$ the second and $A_{15}B_{15}$ the third. Among the all the skirts and skirt tops, skirt and skirt top C_1D_1 ranked first, $C_{13}D_{13}$ the second and C_6D_6 the third. Among all the nightgowns, nightgown E_{13} ranked first, E_{11} ranked second and E_2 the third.

Hence it could be concluded that all the constructed garments secured maximum scores for good in all the aspects of the styles created.

Though the general appearance of all the constructed garments had been scored as good, salwar and kameez A_2B_2 , $A_{12}B_{12}$ and $A_{15}B_{15}$ ranked first, second and third respectively. Among the skirts and skirt tops C_1D_1 , $C_{13}D_{13}$ and C_6D_6 ranked first, second and third respectively. Among the nightgowns, E_{13} , E_{11} and E_2 ranked first, second and third respectively.

Summary and Conclusion

V. SUMMARY AND CONCLUSION

Clothing is an expression of the person, reflecting his personality, way of living, way of thinking and especially, pride in self or family. The adolescent are greatly interested in clothing and concerned with their physical appearance. The peer group becomes even more important and the early adolescents are more interested to conform to the dress of the peer group.

A young girl needs more new clothes than an adult, because she outgrows them physically and tires of them quickly. Every successful garment must have smart styling as well as lines suitable for the figure.

Considering the above the investigator had felt the need to create style in selected garments for early adolescent girls. The research work is planned with the following objectives.

- Finding out the preference of adolescent girls regarding their choice in clothing.
- Taking and standardising the early adolescent girls body measurements.
- Creating styles for the selected outfits for early adolescent girls according to their preference.

- Constructing the selected outfits for the early adolescent girls using the standardised body measurements.
- Evaluating the constructed garments and the styles created for the selected outfits.

METHODOLOGY

A. STUDY OF GARMENT DESIGNS

The investigator studied various fashion books and journals namely Femina, Womens era, Clothes line, Chirag, Jasmine, Dressage and also visited boutique shops to get an idea about the prevailing garment style and fashions suitable for the early adolescent girls.

B. OPINION OF THE ADOLESCENT GIRLS REGARDING THEIR OUTFITS

The investigator selected one hundred adolescent girls from Avinashilingam Higher Secondary School, Coimbatore at random, as it was convenient for the investigator to collect the required information from the adolescent girls for the study. The investigator selected direct personal interview method for collecting the information from the selected samples. The investigator framed an interview schedule to elicit information among the adolescent girls regarding their preference in garments. The interview schedule included the preference of adolescent girls regarding the garment, its color

combination, material, texture, textile design, style and trimmings and decoration. Each individual was interviewed very carefully at their leisure time and the information was recorded. The collected information was consolidated and analysed systematically.

C. STANDARDISING THE BODY MEASUREMENTS OF EARLY ADOLESCENT GIRLS

The investigator selected the early adolescence period (12-15) years for the study. One hundred early adolescent girls were selected from Avinashilingam Higher Secondary School, Coimbatore for the study because it was convenient for the investigator to take body measurements required for the selected outfits. The girls were requested to wear proper foundation garments and to stand erect. Measurements were taken properly by keeping two fingers in between the tape and the body. Thus the body measurements for the selected garments were taken and recorded. The mode obtained for each measurement was taken as the standard measurement.

D. DEVELOPING BASIC PATTERNS FOR THE SELECTED GARMENTS

The investigator selected salwar (A) and kameez (B) and skirt (C) and skirt top (D) and nightgown (E) for the study. The investigator studied the instructions for salwar kameez, skirt and skirt top, and night gown given by

Zarapkar (-), Mathew (1985), Hegde (1983) and Anwani (1992) and prepared new instructions for the selected garments. Muslin patterns were constructed with the prepared new instructions. The investigator herself checked the fitness of the muslin patterns. Based on the results, slight modifications were made in the patterns and introduced the necessary changes in the instructions and developed new instructions for the selected garments. The investigator drafted the basic pattern for the selected garments using the developed instructions and the standardised body measurements.

E. CREATING AND INTRODUCING STYLES IN THE SELECTED GARMENTS

The investigator referred many design magazines and developed forty five styles. The first fifteen styles were introduced in salwar and kameez pattern. The second fifteen styles were introduced in the skirt and skirt top pattern and the last fifteen were introduced in the night gown pattern.

The investigator arranged the developed designs according to the sequential order. Twenty-five adolescent girls from Avinashilingam Higher Secondary School, Coimbatore were requested to give their order of preference of designs for each garment separately. The data was collected, consolidated and analysed. From this, the first

five most preferred designs were found for each garment.

Paper patterns were prepared for the selected designs (A₂B₂, A₇B₇, A₉B₉, A₁₂B₁₂, A₁₅B₁₅, C₁D₁, C₆D₆, C₇D₇, C₁₁D₁₁, C₁₃D₁₃, E₂, E₄, E₇, E₁₁, E₁₃) by using its respective basic pattern.

The investigator purchased cotton and cotton blended material for the selected outfits. The fabric was straightened by pulling a crosswise thread and cut along the line. The material was preshrunk and all creases were removed by pressing. The materials were cut by the investigator and constructed the selected outfits.

F. EVALUATION OF THE CONSTRUCTED GARMENTS

Fifty judges comprising the post-graduate students and staff of the Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore were selected. Five adolescent girls whose body measurements were similar to the standardised body measurements were chosen from the same institution.

The girls were requested to wear salwar and kameez A₂B₂, A₇B₇, A₉B₉, A₁₂B₁₂ and A₁₅B₁₅ on smooth fitting garments. The prepared score cards were given to the selected 50 judges and they were requested to evaluate the

fitness of the constructed garments. Then the same girls were requested to wear skirt and skirt top C₁D₁, C₆D₆, C₇D₇, C₁₁D₁₁ and C₁₃D₁₃. Again they were requested to wear nightgown E₂, E₄, E₇, E₁₁ and E₁₃. The data was collected, consolidated and analysed systematically.

G. EVALUATION OF CREATED STYLES IN THE SELECTED GARMENTS

Fifty judges comprising the post graduate students of Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore were selected. The constructed garments A₂B₂, A₇B₇, A₉B₉, A₁₂B₁₂, A₁₅B₁₅, C₁D₁, C₆D₆, C₇D₇, C₁₁D₁₁, C₁₃D₁₃, E₂, E₄, E₇, E₁₁ and E₁₃ were displayed properly for evaluation. The prepared score card was given to the selected judges and they were requested to evaluate the styles created for the selected garments. The data was collected, consolidated and analysed systematically.

FINDINGS OF THE STUDY

A. OPINION OF THE ADOLESCENT GIRLS REGARDING THEIR OUTFITS

It was found that majority of the adolescent girls preferred salwar and kameez, skirt and skirt top and nightgown for their daily wear. Majority of the adolescent girls preferred monochromatic colors for salwar and kameez and nightgown and monochromatic and neutral colors for skirt and skirt top.

Pure cotton and cotton blends were preferred for salwar and kameez, skirt and skirt top and night gown. Majority of the adolescent girls preferred coarse texture for salwar and kameez, medium texture for skirt and skirt top and soft and medium texture for night gown. Majority of the girls preferred plain woven and printed floral design for salwar and kameez, plain woven and printed floral and geometric design for skirt and skirt top, plain woven and printed dots for nightgown and plain woven design for trousers.

Ninety six per cent of the girls preferred styles for their garments. Most of the girls preferred duppata, patches, flare, collar and puff sleeve for salwar and kameez, yoke, overcoat, flare, umbrella cut, collar and puff sleeve for skirt and skirt top, yoke, house coat, collar and kafthan for night gown. Majority of the adolescent girls preferred tucks, embroidery, fabric paint, mirror work, bead work and metallic rings for salwar and kameez, frills, fancy button, embroidery and fringes for skirt and skirt top, and tucks, lace and embroidery for nightgown.

B. STANDARDISING THE BODY MEASUREMENTS OF THE EARLY

ADOLESCENT GIRLS

The standardised body measurements of early adolescent girls are as follows

Bust circumference 79 cm, waist circumference 67 cm, hip circumference 89 cm, shoulder width 37 cm, back waist length 36 cm, shoulder to kameez length 105 cm, shoulder to ankle 133 cm, waist to hip 20 cm, waist to skirt length 73 cm, waist to ankle 96 cm, sleeve length - half 25 cm, sleeve length - three-fourth - 39 cm, lower arm circumference 23 cm, elbow circumference 23 cm, and bottom 31 cm.

C. EVALUATION OF THE CONSTRUCTED GARMENTS

1. Fitness of the constructed garments

All the constructed salwars are in perfect ease, straight grain, very good set, smooth line and balance. Though all the salwars are fitting properly salwar A₂ ranked first followed by A₉ and A₇ the second and third respectively.

All the constructed kameez are in perfect ease, straight grain, very good set, smooth line and balance. Though all the kameez are fitting properly, kameez B₂ ranked first, B₉ and B₁₅ ranked second and third

respectively.

All the constructed skirts are in perfect ease, straight grain, very good set, smooth line and balance. Though all the skirts are fitting properly, skirt C₁₃ ranked first, followed by C₁ the second and C₆ the third.

All the constructed skirt tops are in perfect ease, straight grain, very good set, smooth line and balance. Though all the skirt tops are fitting properly skirt top D₁₃ ranked first followed by D₁ the second and D₁₁ the third.

All the constructed nightgowns are in perfect ease, straight grain, very good set, smooth line and balance. Though all the nightgowns are fitting properly, nightgown E₂ ranked first, followed by E₇ the second and E₁₃ the third.

2. Effectiveness of the styles created in the constructed garments :

All the constructed garments secured maximum scores for good in all the aspects of the styles created such as styles created, originality in design, suitability of design, placement of decoration, simplicity in design, selection of material, trimmings and decoration, color

combination and general appearance.

Though the general appearance of all the constructed garments are good, salwar and kameez A₂B₂, A₁₂B₁₂ and A₁₅B₁₅ ranked first, second and third respectively. Among the skirt and skirt tops, C₁D₁, C₁₃D₁₃ and C₆D₆ ranked first, second and third respectively. Among the nightgowns, E₁₃, E₁₁ and E₂ ranked first second and third respectively.

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Appendices

APPENDIX I

**INTERVIEW SCHEDULE USED TO ELICIT INFORMATION REGARDING
THE ADOLESCENT GIRLS OUTFITS**

1. Name of the interviewee :
2. Age :
3. Address :
4. Among the following which garment do you prefer for daily wear
 - a. Salwar kameez
 - b. Skirt and Skirt top
 - c. Night gown
 - d. Trouser
 - e. Any other (Specify)
5. Which colour combination do you prefer in your garments ?

S.No.	Garments	Colour harmonies				
		Monochromatic	Analogous	Complementary	Neutral	Any Other (specify)
1	Salwar Kameez					
2	Skirt and Skirt top					
3	Night Gown					
4	Trousers					
5	Any other (specify)					

6. Among the following, which type of materials do you prefer in your garments ?

Materials	Salwar kameez	Skirt and skirt top	Night gown	Trousers	Any other (specify)
Cotton Blends Handloom Khadi Silk Nylon Polyester Flannel Denim Cordurouy Any other (Specify)					

7. Which type of texture do you prefer in your garments ?

S.No	Garments	Texture		
		Soft	Medium	Coarse
1	Salwar Kameez			
2	Skirt and Skirt top			
3	Night Gown			
4	Trousers			
5	Any other (specify)			

8. Among the following textile designs, which do you prefer in your garments ?

Designs	Salwar kameez	Skirt and skirt top	Night gown	Trousers	Any other (specify)
<u>Woven Design</u> a. Plain b. Design Floral Geometrical Dots Lines Checks Any other (Specify)					
<u>Printed Design</u> Floral Geometrical Lines Checks Dots Abstract Conventional Any other (Specify)					

9. Do you like different styles in your garments ?

Yes

No

10. If yes, among the following styles which do you prefer in your garments ?

Styles	Salwar kameez	Skirt and skirt top	Night gown	Trousers	Any other (specify)
Yoke Overcoat Duppatha Patches Flare Flare with godets Flare with slit Umbrella cut House coat Collar Puff sleeve Kafthan					

11. Among the following trimmings and decorations which do you prefer in your garments ?

Trimmings and Decorations	Salwar kameez	Skirt and skirt top	Night gown	Trousers	Any other (specify)
Frills Tucks Smocking Applique Lace Fancy button Embroidary Fabric paint Mirror work Bead work Rope Metallic rings Sequins					

APPENDIX II

BODY MEASUREMENTS OF EARLY ADOLESCENT GIRLS

Body Measurements (in cms)

S.No.	Bust measure ment	Waist measure ment	Hip measure ment	Back width	Back waist length	Shoulder to kameez length	Shoulder to ankle	Waist to hip	Waist to skirt length	Waist to ankle	Bottom	Sleeve length -half	Sleeve length- three- fourth	Lower arm circumf erence	Elbow circumfer ence
1	88	79	94	37	30	100	127	18	70	93	32	25	41	28	24
2	84	74	92	34	33	105	127	20	69	90	31	25	40	24	23
3	81	71	88	35	32	104	126	20	71	89	31	26	42	24	23
4	77	64	85	35	35	115	140	19	80	105	32	27	44	23	20
5	81	69	88	34	35	104	133	20	73	94	30	25	40	23	23
6	77	69	79	34	31	105	119	20	72	89	28	26	38	22	23
7	81	66	89	34	34	106	134	20	72	94	31	27	39	23	23
8	87	73	92	40	38	111	138	17	80	101	32	25	36	26	23
9	81	69	84	36	31	105	127	18	75	93	33	27	39	23	23
10	78	66	85	34	36	107	133	20	78	98	31	28	39	26	24
11	71	69	87	38	37	112	136	19	79	100	31	24	32	23	23
12	93	61	84	34	32	105	132	20	78	99	31	22	31	22	22
13	83	66	89	33	30	108	131	20	75	95	31	25	35	24	23
14	81	79	94	38	31	104	130	20	77	98	31	25	36	32	27
15	77	71	89	36	35	109	132	20	76	100	31	26	38	23	24
16	71	73	89	36	37	105	127	20	72	90	31	25	39	26	26
17	77	71	93	38	28	101	119	21	72	88	31	23	34	24	23
18	79	60	83	36	29	100	133	19	70	91	31	26	40	20	20
19	79	57	79	35	34	106	130	20	73	96	31	25	33	20	20
20	79	59	88	36	33	110	135	20	79	97	32	24	34	20	22
21	94	84	98	37	38	106	128	18	73	89	33	27	40	26	26
22	77	66	85	36	33	106	128	20	71	94	31	23	33	23	23
23	87	74	94	40	34	106	133	20	71	95	30	25	35	26	24
24	79	71	92	36	30	108	132	20	77	101	33	28	44	23	23
25	81	71	102	38	39	110	134	20	70	96	32	26	39	26	24

S. No.	Bust measurement	Waist measurement	Hip measurement	Back width	Back waist length	Shoulder to kameez length	Shoulder to ankle	Waist to hip	Waist to skirt length	Waist to ankle	Bottom	Sleeve length-half	Sleeve length-three-fourth	Lower arm circumference	Elbow circumference
26	80	92	90	35	38	110	134	20	72	97	31	25	35	24	24
27	74	61	85	35	32	106	133	20	76	96	30	22	32	20	20
28	74	65	83	36	29	97	133	18	70	91	31	25	35	22	22
29	77	64	83	35	29	102	130	20	73	93	28	24	34	20	20
30	81	68	94	34	31	103	133	20	73	95	32	25	35	26	23
31	71	61	87	36	36	113	134	20	76	101	31	25	35	22	23
32	81	66	93	34	28	104	128	20	74	93	31	28	40	27	24
33	79	65	89	35	31	103	125	21	70	90	31	25	35	23	23
34	77	71	92	40	37	105	133	20	70	96	31	26	39	23	22
35	89	81	101	37	36	106	135	20	70	97	31	27	40	23	24
36	77	62	89	37	36	105	125	19	68	91	31	25	37	22	22
37	88	74	94	37	32	106	130	18	70	97	31	26	39	24	23
38	84	71	94	42	36	107	137	17	75	97	32	25	36	24	23
39	79	66	94	41	36	106	137	20	71	100	32	24	33	23	23
40	81	69	99	37	37	107	135	20	78	100	31	27	39	24	22
41	94	79	107	38	38	108	138	20	72	99	32	26	38	30	27
42	77	66	84	38	39	104	131	20	71	99	31	25	37	22	22
43	84	71	92	38	36	101	131	20	70	96	31	24	34	22	22
44	80	69	93	38	31	104	131	19	72	97	30	24	34	24	23
45	80	66	93	40	28	107	132	20	72	97	30	25	37	23	23
46	75	61	88	36	36	102	133	21	70	94	32	24	34	23	20
47	84	73	92	37	28	100	123	18	67	90	28	27	40	26	23
48	84	74	96	36	37	101	127	20	71	93	31	27	41	24	23
49	77	62	92	37	29	105	133	17	72	93	31	25	36	23	22
50	94	79	107	39	31	101	130	20	70	96	32	26	39	28	24

(xxiv)

S.No.	Bust measurement	Waist measurement	Hip measurement	Back width	Back waist length	Shoulder to kameez length	Shoulder to ankle	Waist to hip	Waist to skirt length	Waist to ankle	Bottom	Sleeve length-half	Sleeve length-three-fourth	Lower arm circumference	Elbow circumference
51	81	71	89	39	36	105	126	20	72	96	31	25	36	26	22
52	81	69	94	38	36	111	140	19	73	100	33	26	41	23	23
53	77	64	81	33	37	97	121	20	63	86	27	27	43	23	20
54	87	77	97	36	39	105	136	21	74	99	30	28	43	20	23
55	80	69	92	38	39	108	141	20	71	97	31	25	37	26	23
56	84	69	92	40	38	106	140	20	73	100	32	24	34	22	23
57	74	64	84	35	33	98	136	21	67	90	26	26	39	22	20
58	74	66	84	36	32	103	143	19	71	96	31	26	39	20	20
59	77	66	87	35	36	93	130	18	61	93	31	22	32	20	22
60	77	66	81	34	39	102	136	19	69	93	30	25	35	22	20
61	74	69	81	37	36	98	132	20	65	95	30	26	39	20	20
62	77	69	87	37	37	103	133	20	73	103	31	23	33	22	22
63	84	71	94	41	36	110	138	20	73	103	33	28	39	24	24
64	80	68	87	37	37	94	125	17	64	92	33	27	42	23	23
65	84	74	92	39	31	105	127	20	61	88	30	25	39	24	22
66	81	68	94	37	33	100	133	21	68	93	31	23	34	23	24
67	78	61	87	37	32	104	132	22	65	94	31	26	41	23	23
68	79	66	89	35	36	101	128	19	71	98	30	25	39	20	22
69	71	64	83	34	39	105	127	20	68	94	31	27	42	22	22
70	80	71	90	36	38	102	133	18	72	94	31	28	43	23	22
71	64	59	77	29	28	105	122	18	65	85	28	25	39	19	20
72	74	62	81	35	40	103	134	20	68	97	32	23	34	20	20
73	70	85	81	35	33	101	133	17	64	95	30	26	39	20	22
74	71	61	79	34	29	106	120	19	59	82	31	23	34	29	20
75	78	62	87	36	30	101	129	21	69	93	30	25	39	22	22

(X X V)

	measure ment	measure ment	measure ment	width	waist length	to kameez length	to ankle	to hip	to skirt length	to ankle	length- half	length three fourth	arm circumf- erence	circumfer- ence	
76	78	64	85	33	31	104	127	20	63	91	31	22	34	22	22
77	74	66	88	38	29	100	120	21	60	88	30	28	41	22	23
78	78	64	87	37	43	105	123	19	68	91	30	25	39	20	20
79	74	62	81	37	38	102	133	20	68	97	32	27	43	20	22
80	77	64	84	37	41	97	126	20	68	91	30	24	34	23	22
81	71	61	82	34	32	96	128	17	63	88	31	26	39	20	20
82	77	64	88	36	36	98	128	20	64	87	30	23	34	20	22
83	77	69	90	38	30	100	140	18	68	93	30	25	39	22	22
84	79	66	92	39	33	95	125	21	73	99	28	23	40	23	23
85	77	61	85	36	32	100	140	20	73	92	28	24	41	20	20
86	73	61	84	37	41	103	135	19	72	98	31	25	39	22	22
87	70	59	79	34	32	102	140	17	74	91	30	28	44	20	20
88	83	77	89	37	33	100	136	20	69	95	32	26	40	26	24
89	71	64	83	38	33	99	120	20	68	97	30	25	41	20	22
90	61	56	67	33	27	98	124	20	62	81	27	25	40	17	18
91	71	69	83	38	36	95	140	18	65	91	28	24	39	20	20
92	83	74	94	37	31	100	135	20	74	98	31	27	43	23	22
93	74	64	85	37	33	101	124	17	72	95	31	25	40	23	20
94	71	64	90	32	43	95	123	20	67	87	28	26	41	23	22
95	66	60	80	34	28	96	136	20	66	92	31	24	39	20	20
96	75	68	87	36	29	97	140	19	69	94	30	25	40	20	22
97	74	61	83	39	36	103	136	21	75	97	31	28	41	22	20
98	90	77	98	39	39	111	135	21	74	94	29	25	40	26	24
99	78	67	92	39	30	97	141	17	74	98	30	26	40	24	22
100	82	70	96	39	36	114	140	18	76	102	31	26	41	25	24

(xxvi)

APPENDIX III

FORMULA USED FOR CALCULATING MODE

The mode or the modal value is that value in a series of observations which occurs with the greatest frequency, opines Gupta (1988).

Calculation of mode for a continuous series can be determined by applying the formula

$$M_0 = L + \frac{1}{1 + 2} X_i$$

Where,

- L = Lower limit of the modal class
- 1 = the difference between the frequency of the modal class and frequency of the pre-modal class, ie., preceding class.
- 2 = the difference between the frequency of the modal class and the frequency of the post-modal class, ie., succeeding class and
- i = the class interval of the modal class.

For example, the procedure for obtaining the modal value for bust measurement (70-100 cm) is as follows :

CALCULATION OF MODE

Bust measurement (in cm)	No. of girls
70 - 75	24
75 - 80	34
80 - 85	30
85 - 90	6
90 - 95	5
95 - 100	1

$$M_o = L + \frac{l}{1 + 2} \times i$$

Where

$$L = 75 ; \quad l = 10 ; \quad 2 = 4 ; \quad i = 5$$

$$\begin{aligned} M_o &= 75 + \frac{10}{10 + 4} \times 5 \\ &= 75 + 3.57 \\ &= 79 \text{ cm} \end{aligned}$$

Therefore, the modal value of bust measurement is 79 cm.

APPENDIX IV

DEVELOPED INSTRUCTIONS FOR DRAFTING SALWAR PATTERN (A)

Measurements

Waist to ankle	-	96 cm
Hip measurement	-	89 cm
Bottom	-	31 cm

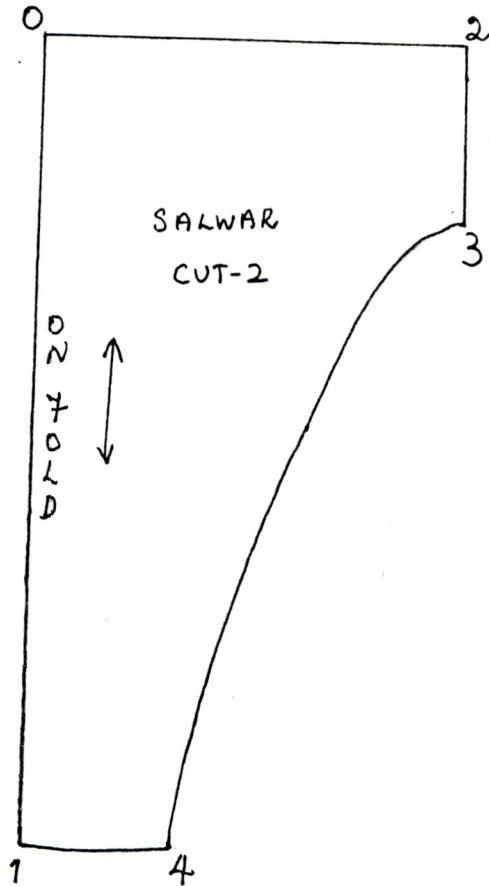


Fig 1

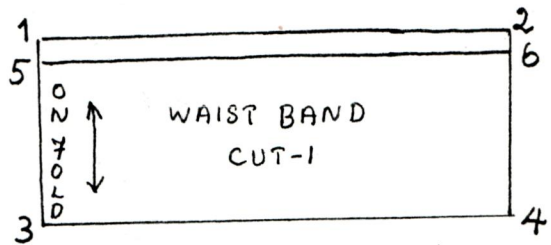


Fig 2



Fig 3

Instructions

Salwar

0-1 = Full length - $1/6$ hip + 5 cm

0-2 = $1/3$ hip + 15 cm for fullness

2-3 = $1/6$ hip + 5 cm

1-4 = half of bottom

3-4 = shape as shown in Figure 1

Connect points 1, 0, 2, 3 and 4 for salwar pattern

Waist band

1-2 = $1/2$ hip + 5 cm

1-5 and 2-6 = 2.5 cm

3-5 and 4-6 = $1/6$ hip + 2.5 cm

Connect points 1, 5, 3, 4, 6 and 2 for waist band pattern

Ankle band

1-2 = Desired width according to the bottom width of the salwar

1-3 and 2-4 = 5 cm

3-4 = Half of bottom

Connect points 1, 2, 4 and 3 for ankle band pattern.

APPENDIX V

DEVELOPED INSTRUCTION FOR DRAFTING KAMEEZ PATTERN (B)

Measurements

Bust measurement	=	79 cm
Hip measurement	=	89 cm
Shoulder width	=	37 cm
Back waist length	=	36 cm
Shoulder to kameez length	=	105 cm
Sleeve length - three-fourth	=	39 cm
Sleeve circumference	=	23 cm

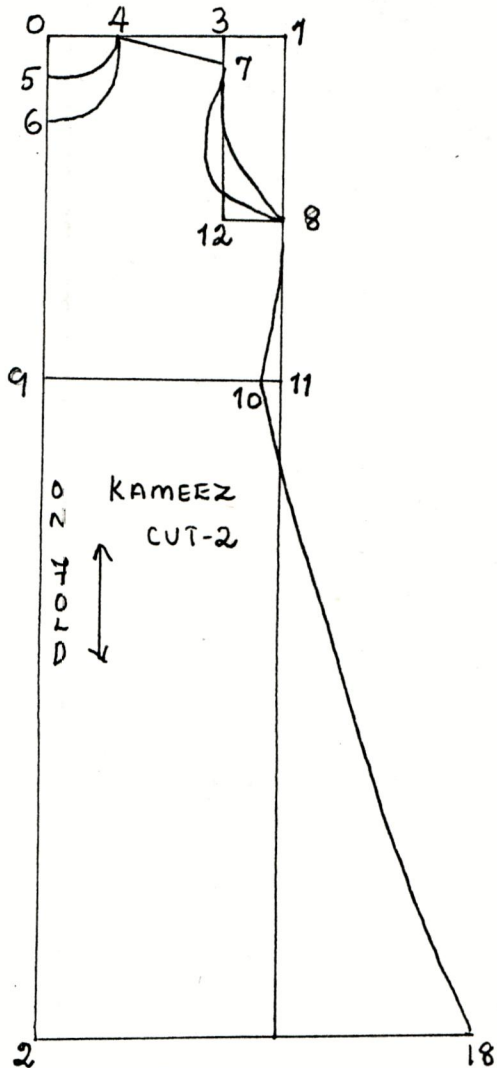


Fig 4

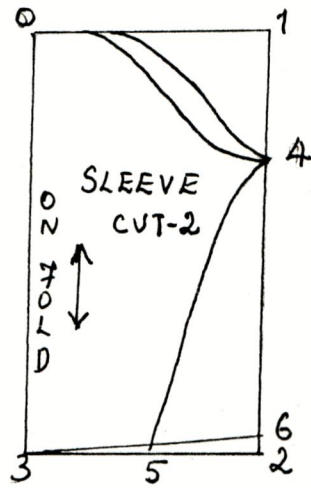


Fig 5

Instructions

Front

$$0-1 = 1/4 \text{ bust} + 5 \text{ cm}$$

$$0-2 = \text{Full length} + 1.875 \text{ cm}$$

$$0-3 = 1/2 \text{ shoulder width}$$

$$0-4 = 1/12 \text{ bust} + 0.625 \text{ cm}$$

$$0-6 = 1/8 \text{ bust}$$

$$3-7 = 2.5 \text{ cm below}$$

$$1-8 = 1/4 \text{ bust}$$

$$0-9 = \text{Back waist length} + 1 \text{ cm}$$

$$9-10 = (0-1) - 2.5 \text{ cm}$$

$$2-13 = 1/2 \text{ hip}$$

Shape 4-6 and 7-8 as shown in Figure 4.

Connect points 4, 7, 8, 10, 13, 2, 9 and 6 for kameez front pattern

Back

$$0-4 = 1/12 \text{ bust} + .625 \text{ cm}$$

$$0-5 = 3.75 \text{ cms}$$

Shape 4 - 5 and 7 - 8 as shown in Figure 4.

Connect points 4, 7, 8, 10, 13, 2, 9 and 5 for kameez back pattern

Sleeve

0-1 = $\frac{1}{4}$ bust + 5 cm

1-2 = Sleeve length + 5 cm

1-4 = $\frac{1}{8}$ bust + 3.75 cm

3-5 = $\frac{1}{2}$ lower arm + 1.25 cm

6-2 = 1.25 cm above 2

Connect 3-6

Shape 0-4 as shown in Figure 5

Connect points 0, 4, 5 and 3 for sleeve pattern

APPENDIX VI

DEVELOPED INSTRUCTIONS FOR DRAFTING SKIRT PATTERN (C)

Measurements

Waist measurement = 67 cm
Hip measurement = 89 cm
Skirt length = 73 cm

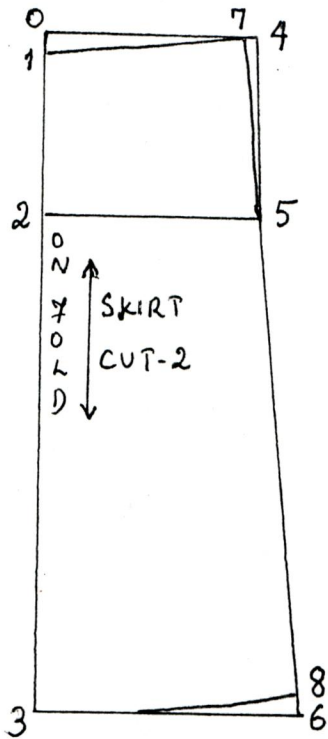


Fig 6



Fig 7

Instructions

Skirt

1-0 = 2 cm

2-1 = 17.5 cm for seat line

3-1 = skirt length + 1 cm minus belt width

4-0 = $\frac{1}{4}$ hip - 4 cm

5-2 = $\frac{1}{4}$ hip - 1.5 cm

Join 4-5 and extend the line to 6

6-3 = $\frac{1}{4}$ hip + 5 cm

7-1 = $\frac{1}{4}$ waist + 1 cm

1-3 = 7-8

Shape 7-5, 7-1 and 8-3 as shown in Figure 6.

Connect points 1, 7, 5, 8, 3 and 2 for skirt pattern

Waist band

1-0 = 5 cm

2-0 and 3-1 = $\frac{1}{2}$ waist + 3 cm

Connect points 0, 1, 3, and 2 for waist band pattern

APPENDIX VII

DEVELOPED INSTRUCTIONS FOR DRAFTING SKIRT TOP PATTERN (D)

Measurements

Bust measurement	=	79 cm
Hip measurement	=	89 cm
Shoulder width	=	37 cm
Back waist length	=	36 cm
Full length	=	56 cm
Waist to hip	=	20 cm
Sleeve length - three fourth	=	39 cm
Sleeve circumference	=	23 cm

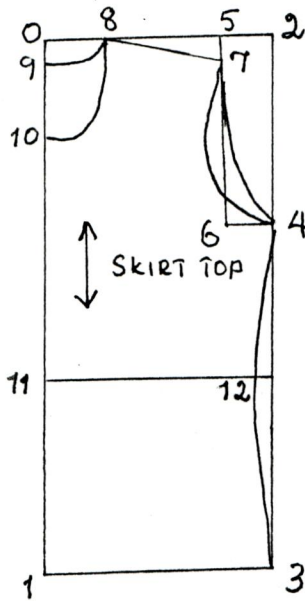


Fig 8

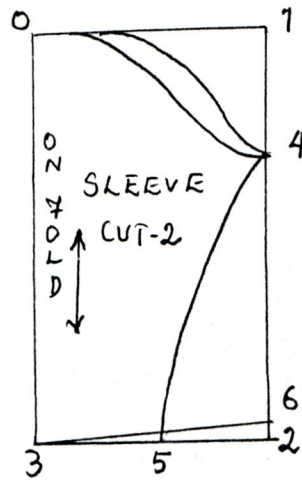


Fig 9

Instructions

Front

- 0-1 = Full length
- 0-2 = $\frac{1}{4}$ bust + 3.75 cm
- 0-11= Back waist length
- 11-1= Waist to hip
- 0-8 = $\frac{1}{12}$ bust
- 0-10= 10 cm
- 0-5 = $\frac{1}{2}$ shoulder width
- 2-4 = $\frac{1}{4}$ bust
- 5-7 = 2.5 cm
- 11-12= $\frac{1}{4}$ waist + 4.37 cm
- 1-3 = $\frac{1}{4}$ hip + 2.5 cm

Shape 8-10 and 7-4 as shown in Figure 8.

Connect points 8, 7, 4, 12, 3, 1, 11 and 10 for skirt front pattern

Back

- 0-8 = $\frac{1}{12}$ bust
- 0-9 = 2.5 cm

Shape 8-9 and 7-4 as shown in Figure 8.

Connect points 8, 7, 4, 12, 3, 1, 11 and 9 to get skirt top back pattern

Sleeve

0-1 = $1/4$ bust + 5 cm

1-2 = Sleeve length + 5 cm

1-4 = $1/8$ bust + 3.75 cm

3-5 = $1/2$ lower arm + 1.25 cm

6-2 = 1.25 cm above 2

Connect 3 - 6

Shape 0-4 as shown in Figure 9.

Connect points 0, 4, 5 and 3 for sleeve pattern

APPENDIX VIII

DEVELOPED INSTRUCTIONS FOR DRAFTING NIGHT GOWN PATTERN (E)

Measurements

Bust circumference	=	79 cm
Shoulder width	=	37 cm
Back waist length	=	36 cm
Full length	=	133 cm
Sleeve length (half)	=	25 cm
Lower arm circumference	=	23 cm

Instructions

Front

0-1 =	$1/4$ bust + 5 cm
0-2 =	Full length + 1 cm
0-4 =	$1/2$ shoulder width
0-5 =	$1/12$ bust + .625 cm
0-7 =	12 cms
1-9 =	$1/4$ bust + 1.25 cm
4-8 =	2.5 cms
0-10 =	Back waist length + 1 cm
2-12 =	$1/4$ hip + 20 cms

Shape 5-7 and 8-9 as shown in Figure 10.

Connect points 5, 8, 9, 11, 12, 2, 10 and 7 for nightgown front pattern.

Back

0-5 =	$1/12$ bust + .625 cm
-------	-----------------------

0-6 = 3.125 cm

Shape 5-6 and 8-9 as shown in Figure 10

Connect points 5, 8, 9, 11, 12, 2, 10 and 6 night gown back pattern

Sleeve

0-2 = $\frac{1}{4}$ bust - 1.25 cm

2-3 = $\frac{1}{2}$ of 0-2

0-1 = Sleeve length

1-5 = $\frac{1}{6}$ bust + 2.5 cm

Connect 3-5

Shape 0-3 as shown in Figure 11.

Connect points 0, 3, 5 and 1 for sleeve pattern

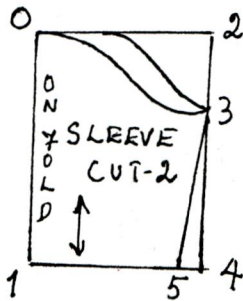


Fig 11

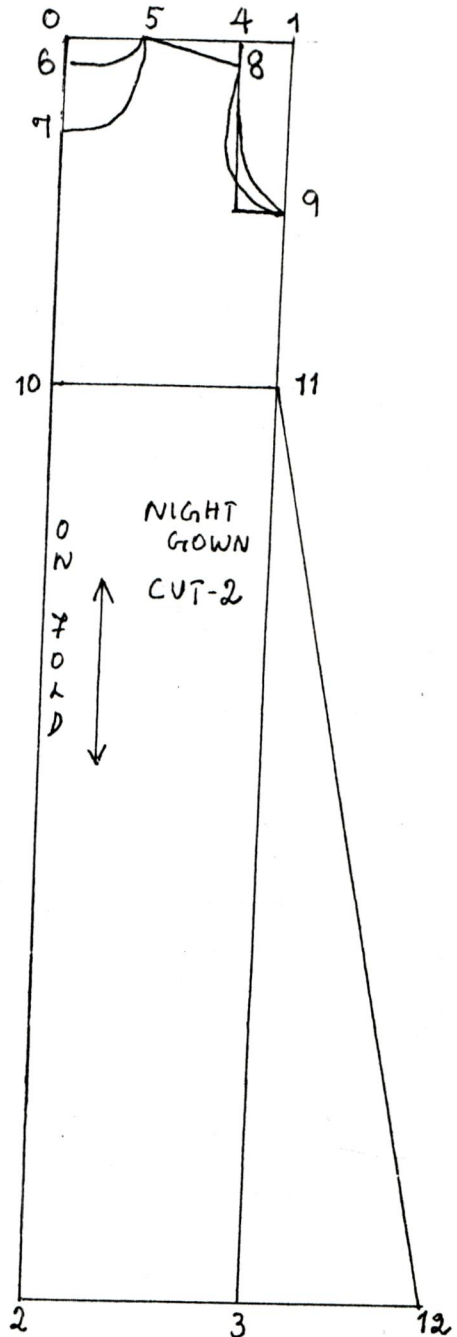
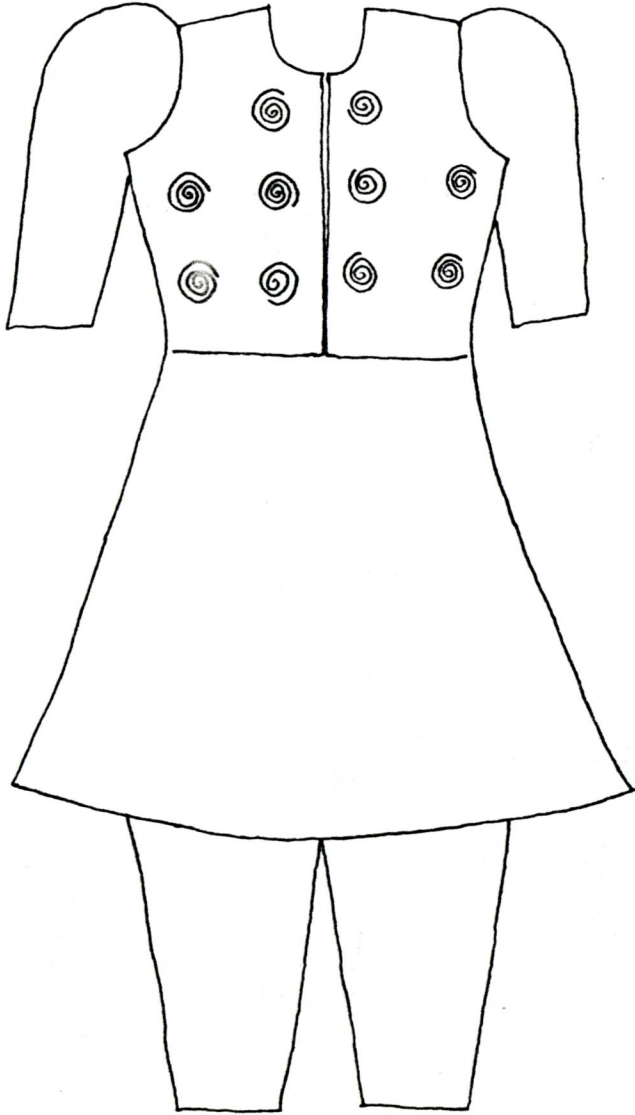


Fig 10

(xxxx)

APPENDIX - IX
THE SELECTED DRESS DESIGNS

(xxxxj)



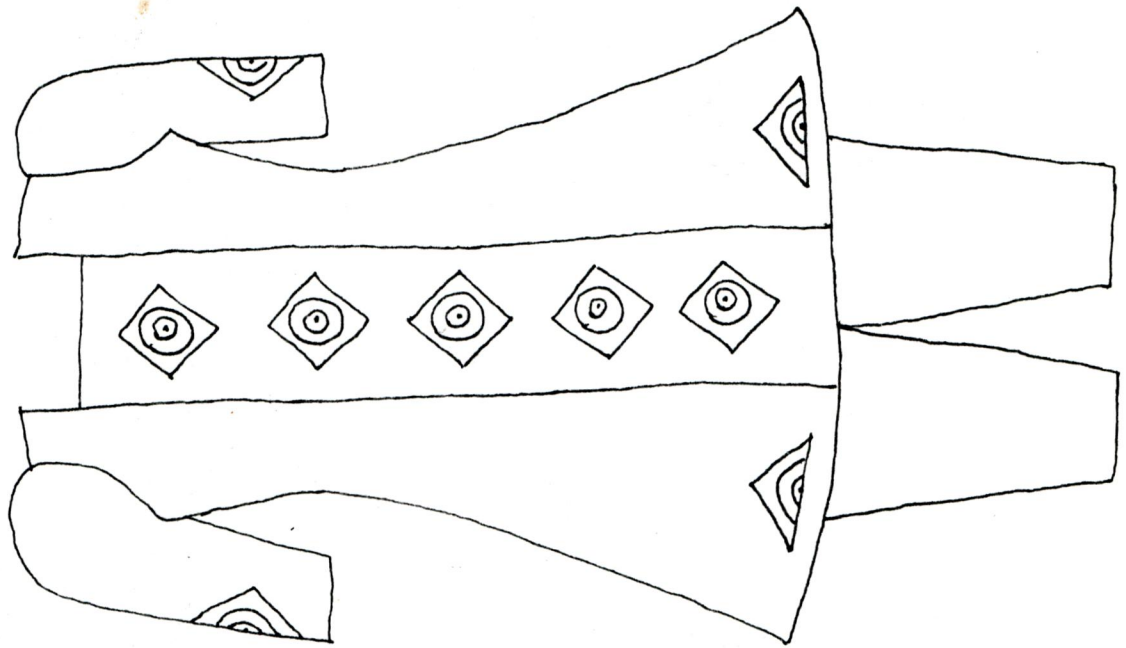
A₂B₂



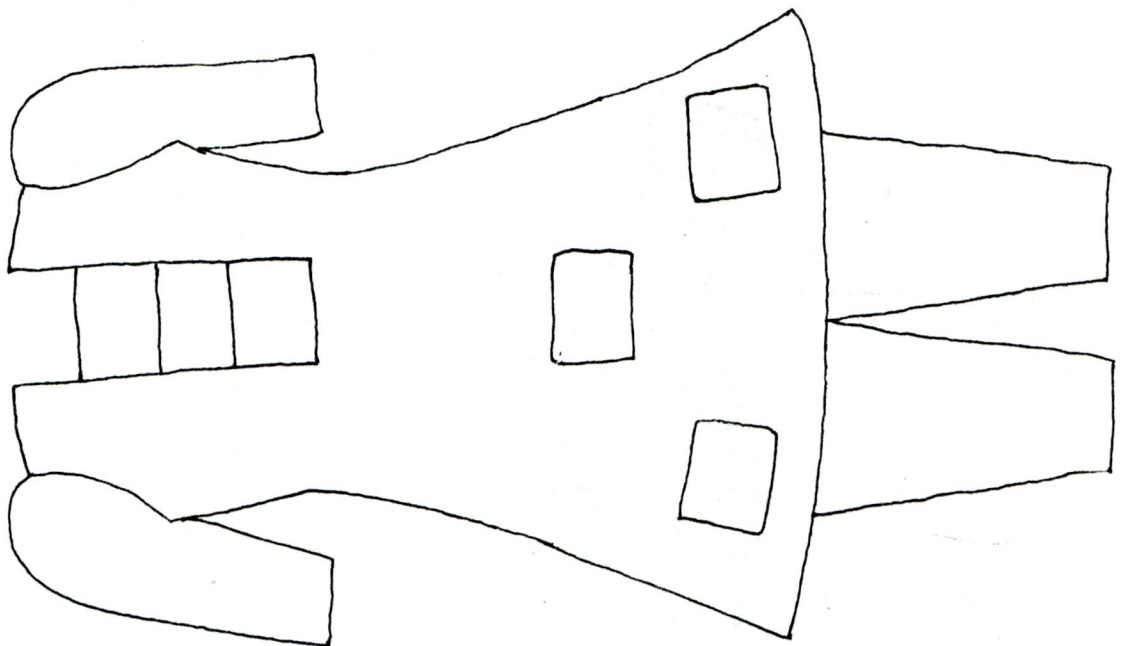
A₇B₇



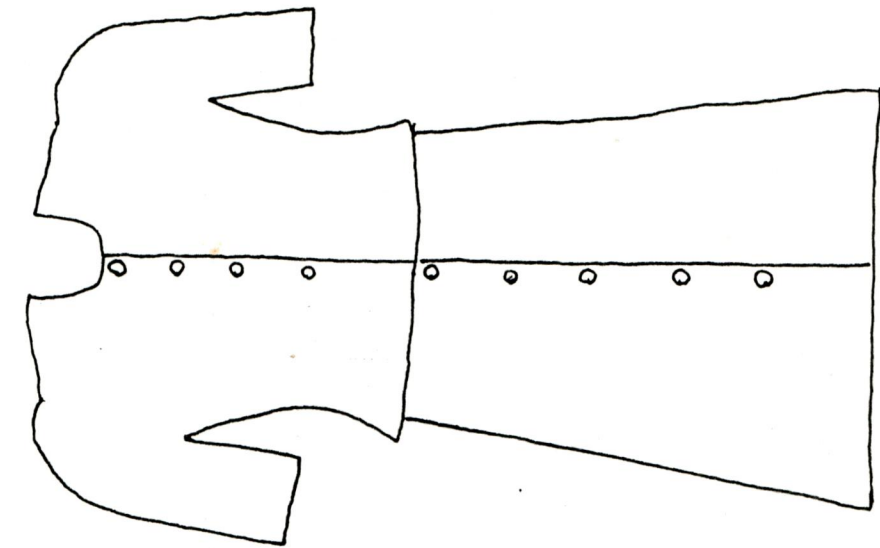
A₉B₉



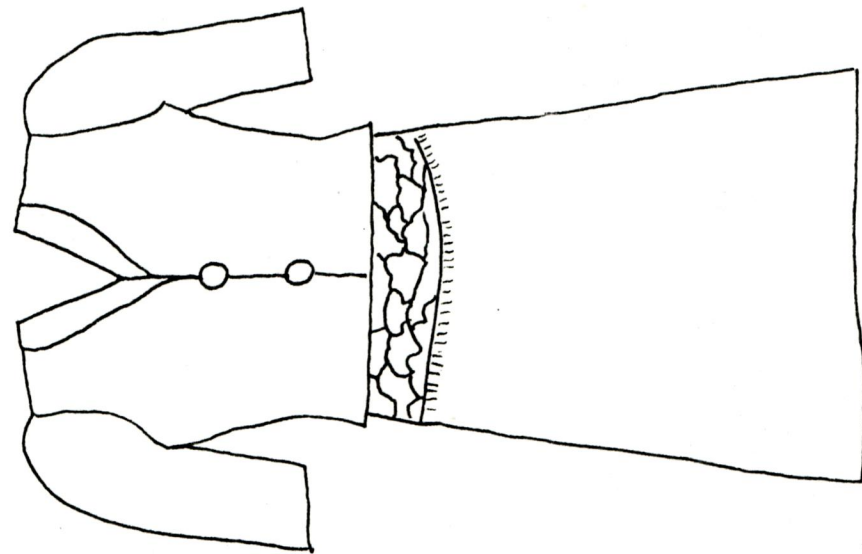
A₁₅ B₁₅



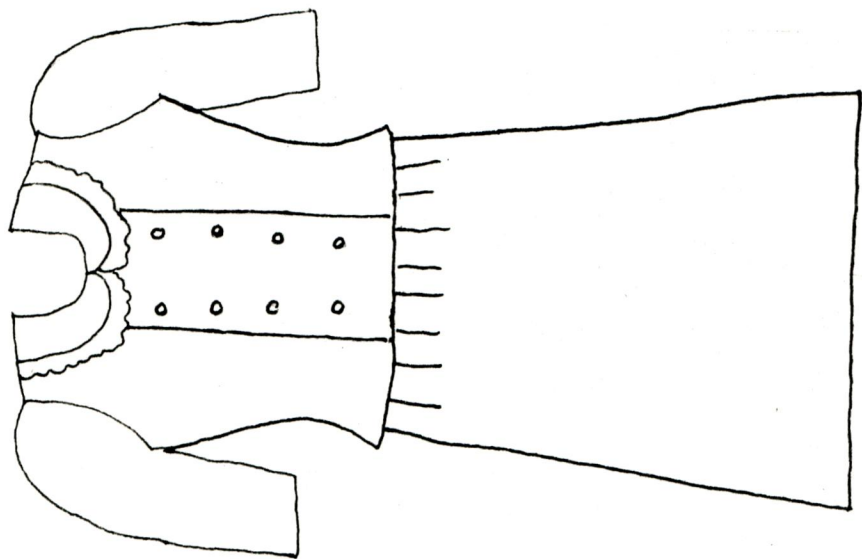
A₁₂ B₁₂



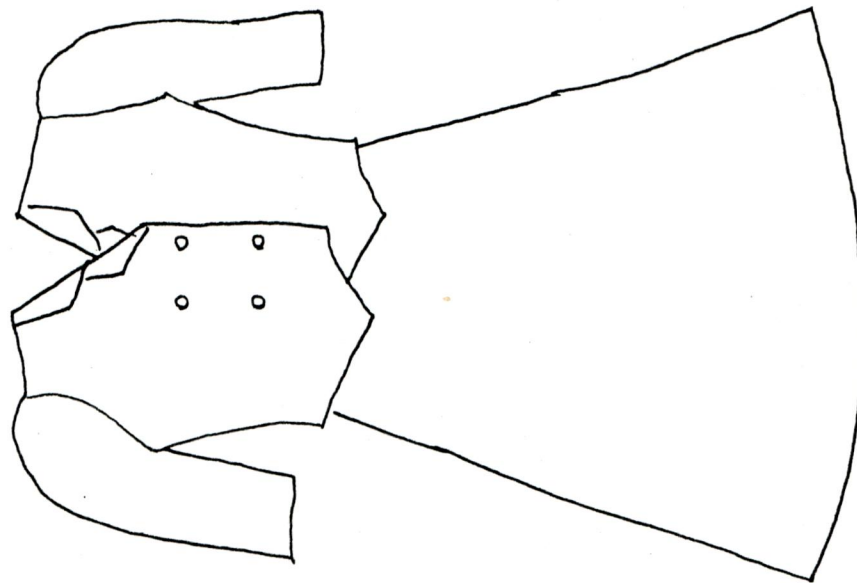
C7D7



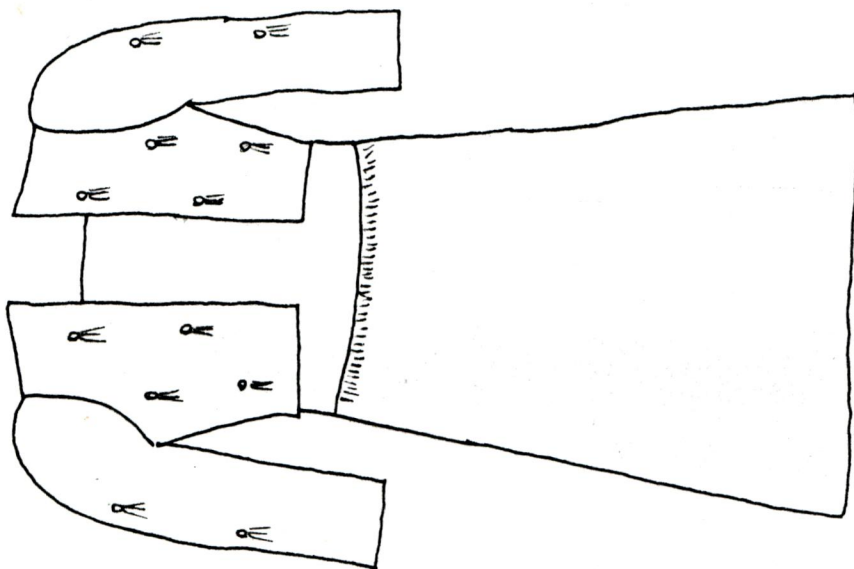
C6D6



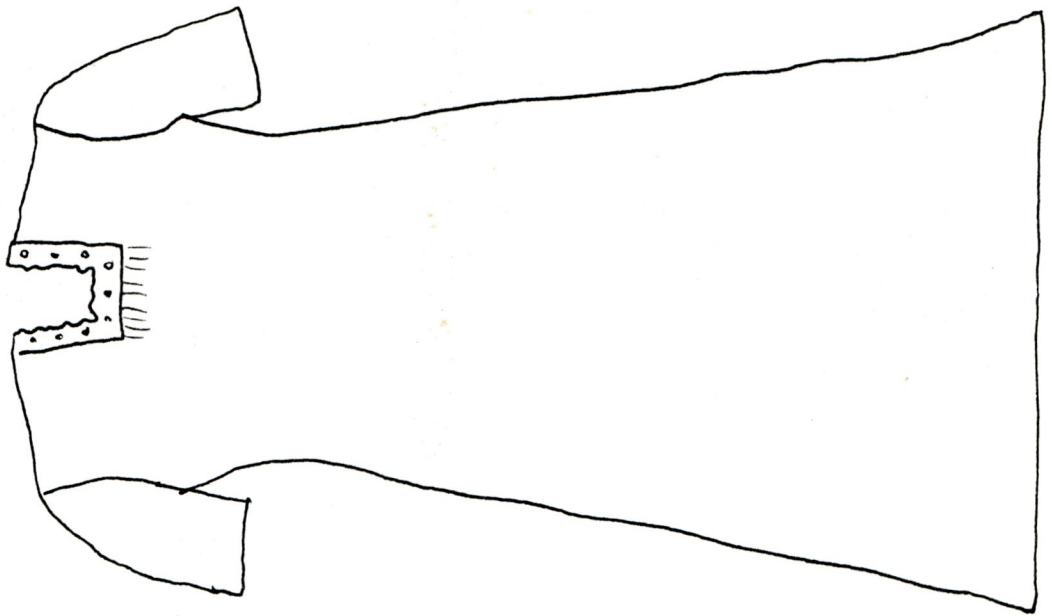
C1D1



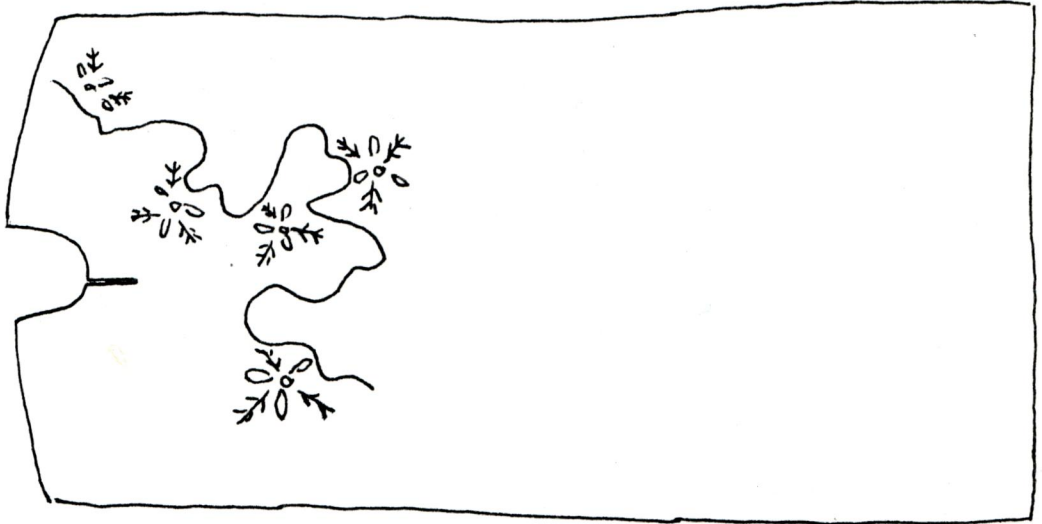
C₁₃D₁₃



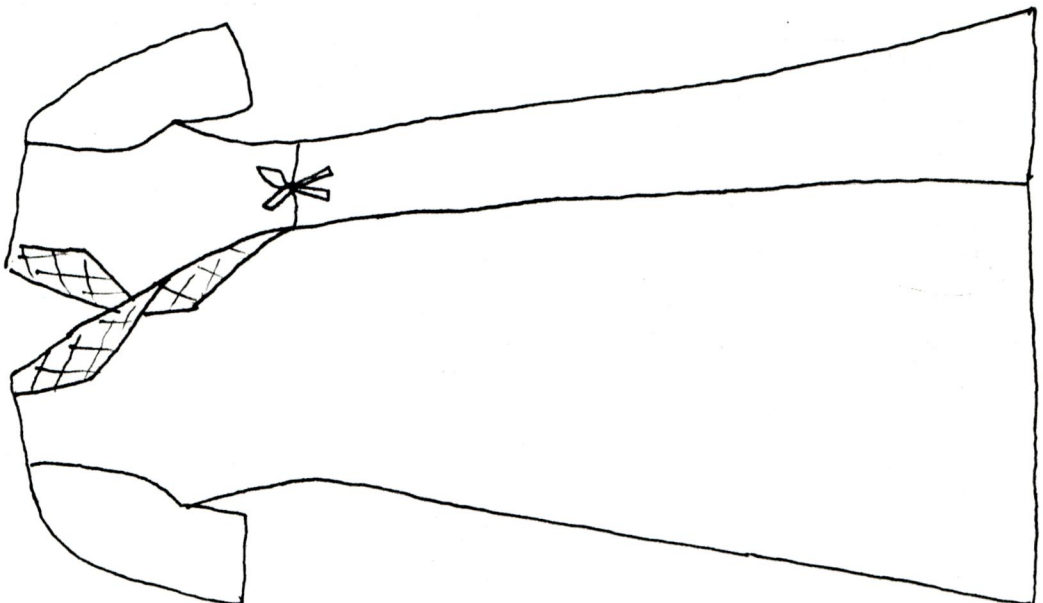
C₁₁D₁₁



E7

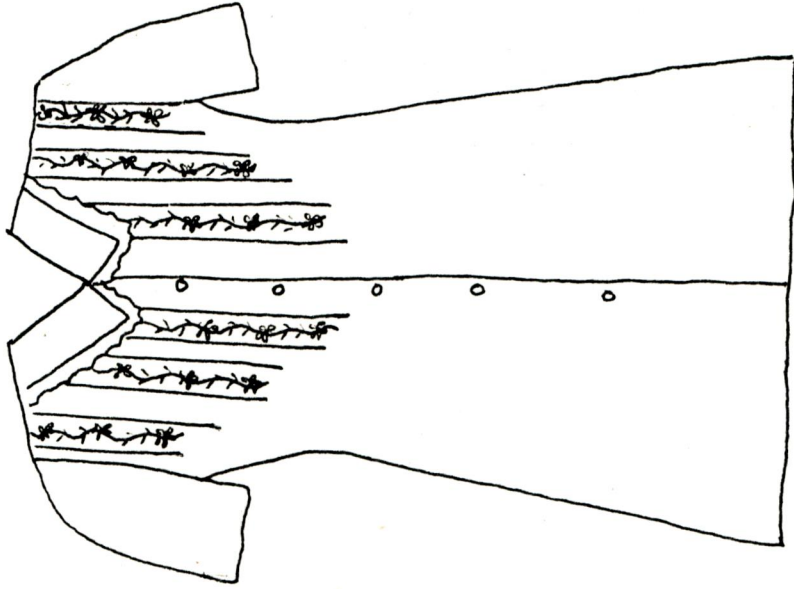


E4

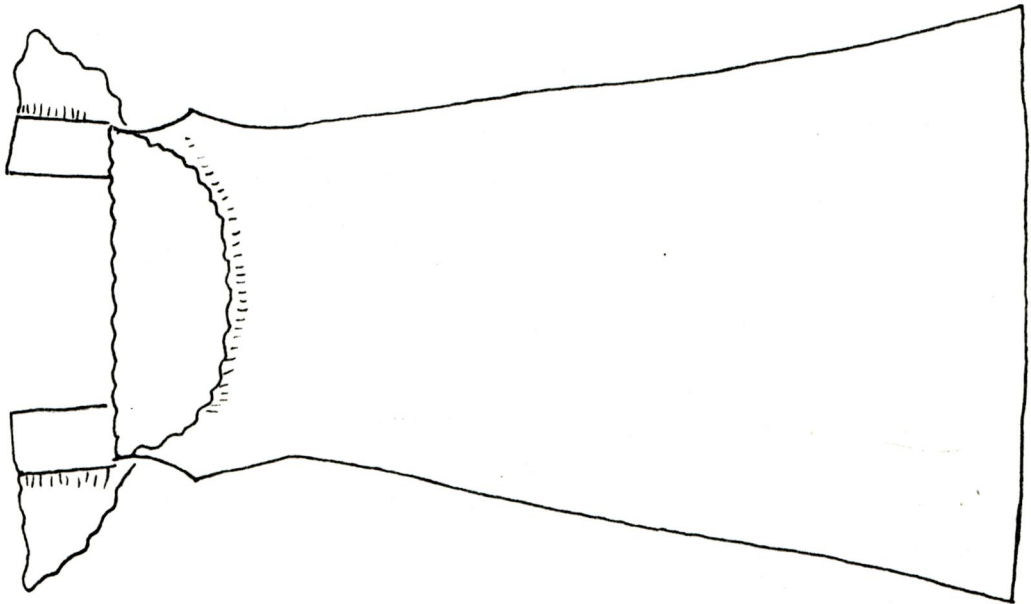


E2

(XXXXV)

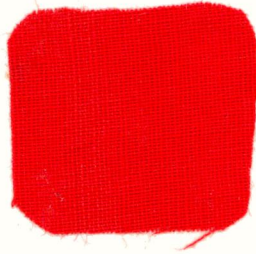
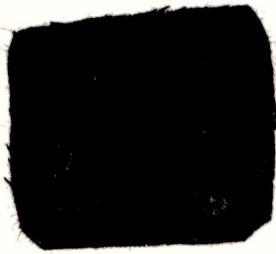


E13



E11

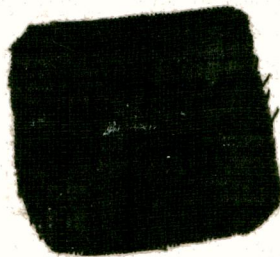
APPENDIX - X
THE SELECTED MATERIALS



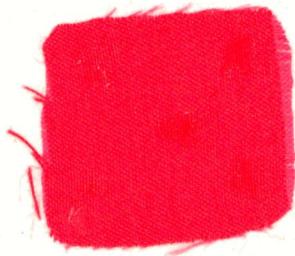
A₂B₂



A₇B₇



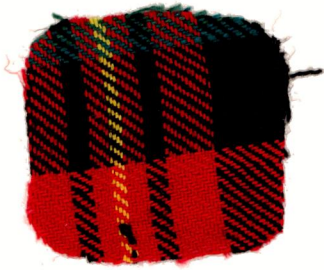
A₉B₉



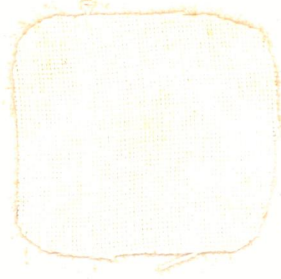
A₁₂B₁₂



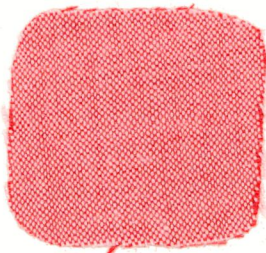
A₁₅B₁₅



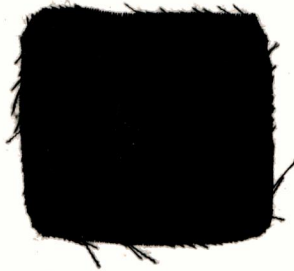
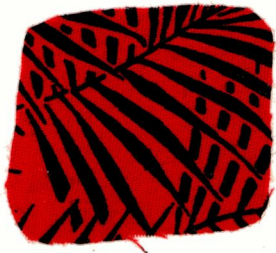
C1D1



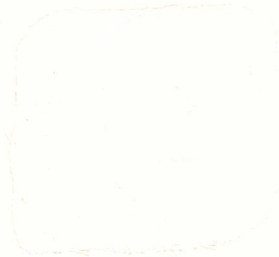
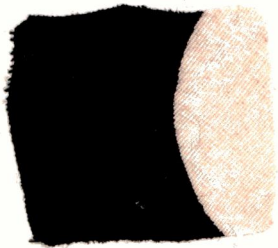
C6D6



C7D7

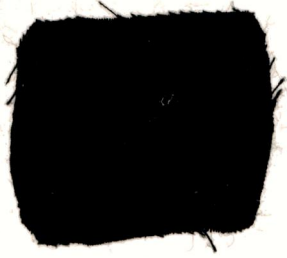


C11D11

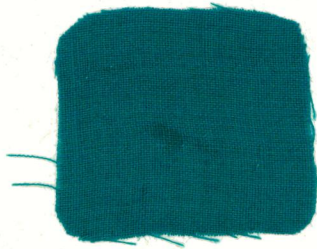


C13D13

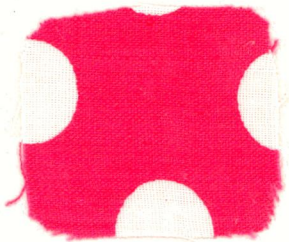
(xxxxx)



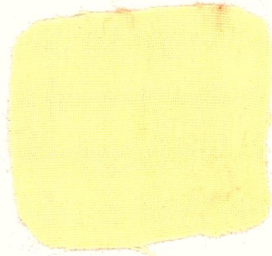
E2



E4



E7



E11



E13

APPENDIX XI

SCORE CARD USED TO EVALUATE THE FITNESS OF THE CONSTRUCTED GARMENTS

1. Name of the judge :

Name of the Garment	Design No.	Ease			Grain			Set			Line			Balance		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		Proper fit	Loose fit	Tight fit	Straight grain	Cross grain	Bias grain	Very good	Good	Fair	Smooth	Fairly Smooth	Not Smooth	Balanced	Moderately balanced	Im Balanced
Salwar	A ₂ A ₇ A ₉ A ₁₂ A ₁₅															
Kameez	B ₂ B ₇ B ₉ B ₁₂ B ₁₅															
Skirt	C ₁ C ₆ C ₇ C ₁₁ C ₁₃															
Skirt top	D ₁ D ₆ D ₇ D ₁₁ C ₁₃															
Night gown	E ₂ E ₄ E ₇ E ₁₁ E ₁₃															

Key :

Criteria

Scores

- 1 - 5 points
- 2 - 3 points
- 3 - 1 point

(xxxxxiii)

APPENDIX XII

SCORE CARD USED TO EVALUATE THE STYLES CREATED IN THE CONSTRUCTED GARMENTS

1. Name of the Judge :

S.No.	Particulars	Salwar and Kameez					Skirt and Skirt top					Night gown				
		A ₂ B ₂	A ₇ B ₇	A ₉ B ₉	A ₁₂ B ₁₂	A ₁₅ B ₁₅	C ₁ D ₁	C ₆ D ₆	C ₇ D ₇	C ₁₁ D ₁₁	C ₁₃ D ₁₃	E ₂	E ₄	E ₇	E ₁₁	E ₁₃
		G F P	G F P	G F P	G F P	G F P	G F P	G F P	G F P	G F P	G F P	G F P	G F P	G F P	G F P	G F P
1.	Styles created															
2.	Originality in design															
3.	Suitability of design															
4.	Placement of decoration															
5.	Simplicity in design															
6.	Selection of Material															
7.	Trimmings and Decoration															
8.	Color combination															
9.	General appearance															

Keys :
Criteria **Scores**
 G-Good 5 points
 F-Fair 3 points
 P-Poor 1 point