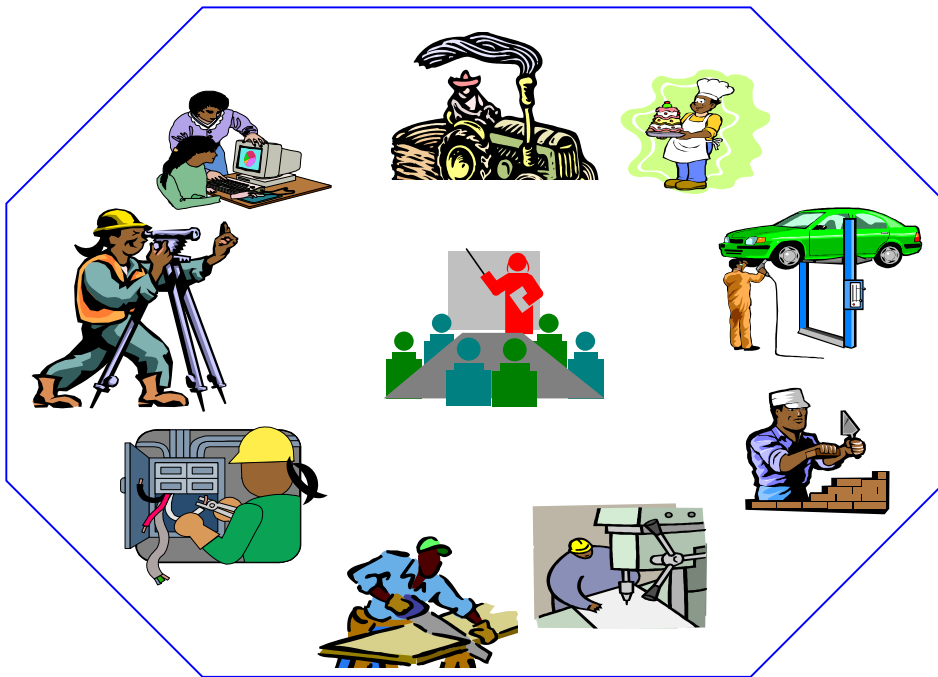




## Advanced Apparel Production -Level-III

Based on march, 2011 Version1 OS and Dec, 2020 Version Curriculum



**Module Title: Analyzing Fit Model**

**LG Code: IND AAP3 M08 LO (1-4) LG (32-35)**

**TTLM Code: IND AAP3 TTLM 1020v1**

October 2020  
Bishoftu, Ethiopia



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Answer key for Module Title: Operating a Bulk Liquid /Milk /Transfer Process..... 75

<b>LG #32</b>	<b>LO #1- Scope design brief in relation to target market</b>
<b>Instruction sheet</b>	
<p>This learning guide is developed to provide you the necessary information regarding the following content coverage and topics:</p> <ul style="list-style-type: none"> <li>• Obtaining profile of target market population</li> <li>• Identifying demographics</li> <li>• Intending and establishing purpose of design</li> <li>• Interpreting design brief in appropriate sizing system</li> <li>• Clarifying where necessary design with designer</li> <li>• Approving fit model for design by stakeholders</li> <li>• Developing communication with fit model for measurement taking, fittings and presentation of garments</li> <li>• Work schedule with fit model for measurement taking, fittings and presentation of garments.</li> </ul> <p>This guide will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:</p> <ul style="list-style-type: none"> <li>• Obtain profile of target market population</li> <li>• Identify demographics</li> <li>• Intend and establishing purpose of design</li> <li>• Interpret design brief in appropriate sizing system</li> <li>• Clarify where necessary design with designer</li> <li>• Approve fit model for design by stakeholders</li> <li>• Develop communication with fit model for measurement taking, fittings and presentation of</li> </ul>	



garments

- Work schedule with fit model for measurement taking, fittings and presentation of garments

### **Learning Instructions:**

Read the specific objectives of this Learning Guide.

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3. .Accomplish the “Self-checks” which are placed following all information sheets.
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8. If your performance is unsatisfactory, see your trainer for further instructions or go back to “Operation sheets”.



## Information Sheet 1. Obtaining Profile Of Target Market Population

### 1.1 Obtaining Profile Of Target Market Population

#### Introduction

A target population or, more commonly, a target market, is a profile of the most likely customers or clients of a specific product or service. The characteristics of the target population will vary from business to business, but there are some key concepts that a business owner can use to identify its target market.

Having an in-depth knowledge of who your customers are makes your creative process a whole lot easier. Think of it as giving a gift to someone close to you. You think about what they will absolutely appreciate. You'll be able to give your target market exactly what they want when you truly know them.

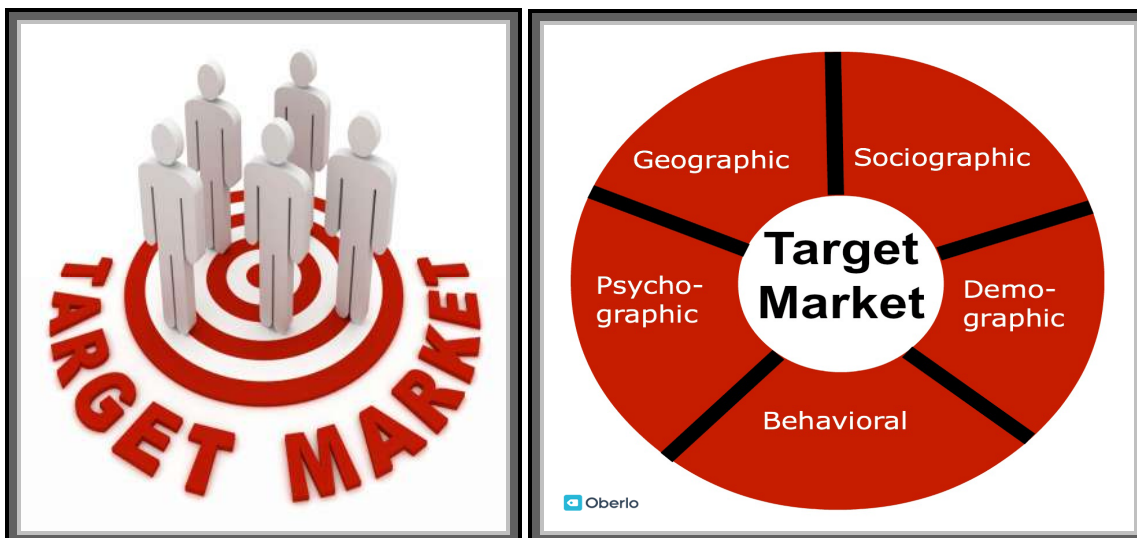
It is absolutely essential that you understand exactly who your customer is so you can properly design and promote to your target market. Knowing your customer profile will give you focus and direction. There are many different types of customers and each of them has their own sense of style.



In order to best serve them it is imperative that you know who they are and what they want. From their age to their geographic location and the brands they patronize, you need to keep tabs of all these vital information.

Ask yourself these six questions:

- How old are they?
- Where do they live?
- Are they mostly men or women?
- How much is their average monthly income?
- How much are they willing to spend on the type of clothes you design?
- What other brands that are similar to yours do they buy from?





## Im.01-Target market and market segmentation

- We can segment our target market/ population by their :-
- Plus Sizes
  - Petit Sizes
  - Teen
  - Mature Age
  - Baby
  - Toddle

Self-Check 1	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

### I. Choose the best answer (each 2 point)

1. \_\_\_\_\_ is a profile of the most likely customers or clients of a specific product or service.

- A. Target Market  
B. Target population  
C. **A&B**  
D) All

2. We can segment our target market/ population by their?

- A. Teen  
B. Mature Age  
C. Toddle  
**D. All**

**Note: Satisfactory rating 100% and above    Unsatisfactory below**

You can ask you teacher for the copy of the correct answers.

Score = \_\_\_\_\_

Rating: \_\_\_\_\_

### Answer Sheet

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Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Information Sheet 2. Identifying Demographic

### 2.1 Identifying Demographic

#### What Is Demographics?

Demographics is the study of a population based on factors such as age, race, and sex. Demographic data refers to socio-economic information expressed statistically, also including employment, education, income, marriage rates, birth and death rates and more factors. Governments, corporations, and nongovernment organizations use demographics to learn more about a population's characteristics for many purposes, including policy development and economic market research.

#### What is demographic segmentation?

Demographic segmentation divides the market into smaller categories based on demographic factors, such as age, gender, and income. Instead of reaching an entire market, a brand uses this method to focus resources into a defined group within that market.

Dividing the market into smaller segments, each with a common variable, allows companies to use their time and resources more efficiently. They can better understand the prospective market, and use advertising personalization to ensure the needs of the targeted group are fulfilled:





The most fundamental demographic parameter is the number of individuals within a population. Population size is defined as the number of individuals present in a subjectively designated geographic range. Despite the simplicity in its concept, locating all individuals during a census (a full count of every individual) is nearly impossible, so ecologists usually estimate population size by counting individuals within a small sample area and extrapolating that sample to the larger population. Regardless of the challenges in measuring population size, it is an important characteristic of a population with significant implications for the dynamics of the population as a whole.

Self-Check 2	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. Choose the best answer (each 2 point)**

1. \_\_\_\_\_ is the study of a population based on factors such as age, race, and sex.

A. Demographics

C. Gender

B. Ethnicity

D. All

**II. Give short answer**

1. \_\_\_\_\_ is the most fundamental demographic parameter?

**Note: Satisfactory rating 100% and above    Unsatisfactory**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____



Name: \_\_\_\_\_

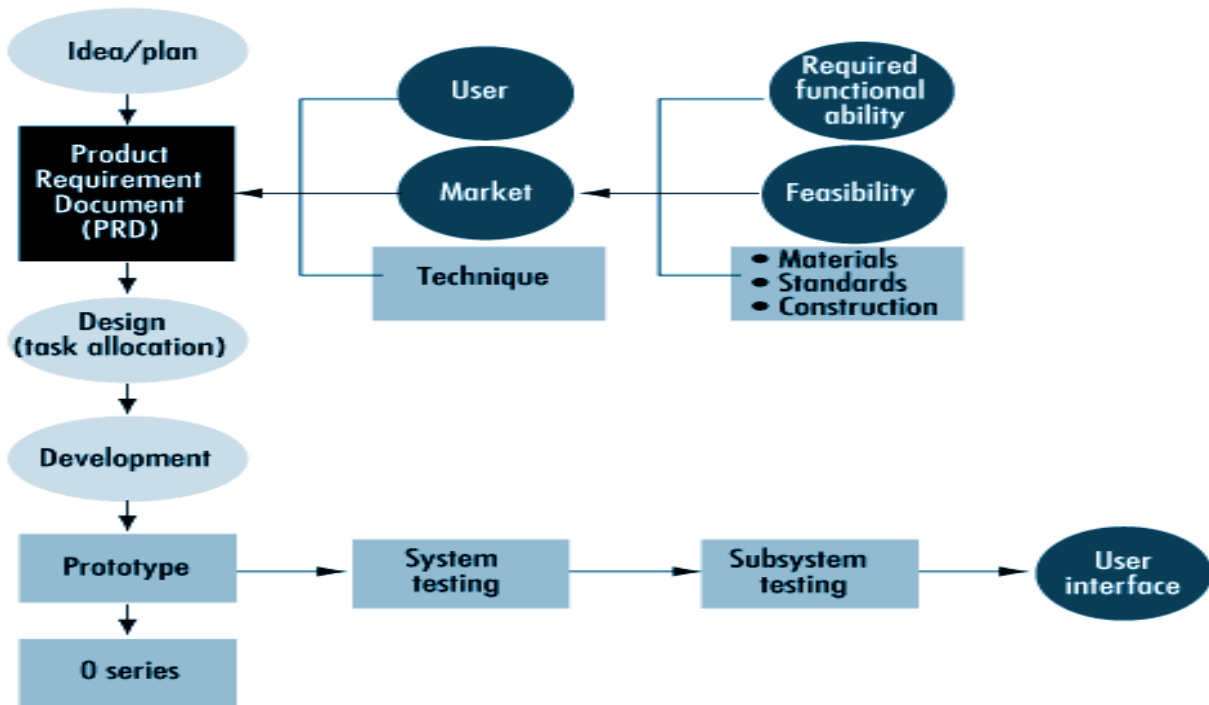
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## Information Sheet 3: Establishing Intended Purpose Of Design

### 3.1 Establishing Intended Purpose Of Design

Purpose Design is about being clear about who you are and what you stand for – both as an organization or as an individual. Conventional wisdom says that a company's executive team should develop a Vision or Mission statement to do this. And conventional wisdom would be responsible for all the over blown, grandiose Vision and Mission statements that nobody believes and nobody embraces.

Purpose Design takes a very different, but in some ways unsurprising approach. Purpose Design starts with people – the people that make up the company or organisation and works outward to the other people involved here – namely the customers or consumers of your products and services.



## Im02- purpose of design

The purpose of design is much more closely linked to strategy than aesthetics. Design is the process of intentionally creating something while simultaneously considering its objective (purpose), function, economics, sociocultural factors, AND aesthetics. Sometimes design is ugly (intentionally), and sometimes it's beautiful, but when done well, it's always on purpose.

At its heart, design is about improvements. It's a matter of making things better. Design is also about doing. Well, not necessarily, but it's so much easier to design something when you can see it, feel it, taste it, smell it, hear it, do it. It's better when it's real.





Self-Check 3	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. Give short answer (each 2 point)**

1. What is the purpose of design?

 \_\_\_\_\_

 \_\_\_\_\_

 \_\_\_\_\_



**Note: Satisfactory rating 100% and above    Unsatisfactory**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date: \_\_\_\_\_

<b>Information Sheet 4: Interpreting Design Brief In Appropriate Sizing System</b>
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**4.1 Interpreting design brief in appropriate sizing system**

**Introduction**

Two-dimensional patterns are considered as a basis for garment development, and are made through different pattern construction methods developed by numerous experts over many years. Traditional pattern construction techniques are known as drafting a basic block pattern, flat pattern or modeling on the dress stand particularly in couture design. To improve efficiency pattern makers use standard sizes and measurements to draft basic patterns.



Garment patterns are drafted for one size that is usually a size in the middle range, and this pattern is then scaled up and down for smaller and larger sizes. Over the years, clothing manufacturers have faced issues how to improve and create optimal fit for ready-to-wear garments. A common solution was to develop a sizing system and incorporate body information into the desired patterns. The aim of a sizing system is to satisfy consumers in terms of identifying the size that fits their body for mass-produced garments.

Anthropometry as an anthropological method deals with the measurement of size, weight, and proportions of the human body. Procedures, methods, and instruments for anthropometry are developed in such a way to make valid and reliable measurements of individual subjects, regions, and populations needed for garment construction and design. Numerous anthropometric studies are available in order to acquire information about body size and proportions of a certain population. Sizing systems differ from country to country because body shapes and proportions of consumers vary.

### **Development of sizing standards**

After tailors and pattern makers from the garment industry requested an international sizing system, the International Standardization Organization (ISO) submitted in 1979 a document entitled ISO 8559, „Garment Construction and Anthropometric Surveys – Body Dimension” as the international standard for all kinds of garment size surveys.

Many countries around the world developed standard garment sizing systems such as: ISO garment sizing system, German sizing system, European, American, Japanese, Korean, Chinese garment sizing system and so on. Those standards classified given range of measurements into several body types with similar body measurements. Croatia also performed the compound technological project Croatian Anthropometric



System (STIRP CAS) in order to define conditions for a new size system of clothing and footwear. The project included anthropometric measurements of the population in 20 Croatian counties and in the city of Zagreb within the age group from 20 to 70 years divided in six age groups.

After statistical analysis seven types of women's body were determined based on the difference between bust circumference and hip circumference, while nine men's body types were determined based on the difference between chest and waist difference.

Sizing system May include:

- Women's sizes such as 10, 12, 14, 16, etc.
- Men's sizes such as 92, 95, 98, etc.
- Women's bra sizes such as 12A, 12B, 12C, 12D, 12DD, etc.
- Children's sizes such as 5, 6, 7, 8, 9, 10, etc.
- Babies' sizes such as 0000, 000, 00, 0, etc. •

Self-Check 4	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. Choose the best answer (each 2 point)**

1. To improve efficiency pattern makers use standard sizes and measurements to draft basic patterns.
  - A. True
  - B. False



2. Anthropometry as anthropological method deals with the measurement of size, weight, and proportions of the human body.
- A. True
  - B. False

**Note: Satisfactory rating 100% and above    Unsatisfactory**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date: \_\_\_\_\_

<b>LG #33</b>	<b>LO #2- Measure fit model</b>
	<b>Instruction sheet</b>





This learning guide is developed to provide you the necessary information regarding the following content coverage and topics:

- preparing tools and equipment
- establishing and marking body reference points
- Taking and recording body measurements
- consulting designer and product development team for analysis of measurements

This guide will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- prepare tools and equipment
- Establishing and marking body reference points
- Take and recording body measurements
- consult designer and product development team for analysis of measurements

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## Information Sheet 1. Preparing Tools And Equipment

### 1.1 Preparing Tools And Equipment

#### INTRODUCTION:

“You’re only as good as the tools you use”

This saying has been around for many years and highlights the importance of using the correct tool for the job. Consequently, it means that your employees are only as good as the tools that they use, too.

There are thousands of tools out there. The challenge for managers is to find the right ones to implement in the workplace to aid their employees. Whether physical equipment that is needed to perform a task or different applications to facilitate processes at work, it is important for your business to have the correct tools available for your employees to do their work effectively.

#### ➤ MEASURING TOOL:

Measuring tools are needed for taking body measurements and transferring it into paper patterns. Some of the measuring tools are

##### ✓ Manual Or Electronic Tape Measure

Measuring tape It is a metal tipped cotton or plastic tape to take measurements. Generally, the size of a measuring tape is ½ inch to ¼ inch wide, 60 inches long and has ⅛ divisions (Fig. 2.1). At one end, it has a small metal cover and at the other end of the tape, there is a metal strip of about 3 inches long attached to take measurements from points like round chest, round waist and length of the garment, etc.



Im03- Manual/digital Tape measure



### ✓ **Image Capturing Devices**

Taking body measurements and sizes by hand is laborious and time-consuming. It is also inexact and requires close contact. Spending too much time on this task is costly. With the VITUS body scanner, you can measure your customers automatically without physical contact in a matter of seconds. The whole body is scanned in one measurement process, with all relevant body measurements taken. It does not require an additional effort for you or your customers. Precise body measurements ensure that clothes are more comfortable to wear and so customers are more satisfied



**IM04- 3D BODY SCAN FOR MADE-TO-MEASURE**

### ✓ **Pen/Pencil**

If we are taking body measurement manually pen/pencil is important to register on the note book.

### ✓ **Measure Chart**

Is used for documenting measurements lists





Self-Check 1	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. Choose the best answer (each 5 point)**

1. List out tools and equipments used for measurement taking?

 \_\_\_\_\_

 \_\_\_\_\_

 \_\_\_\_\_

**. Answer the following question!**

**Note: Satisfactory rating 100%**

**Unsatisfactory below**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score = \_\_\_\_\_

Rating: \_\_\_\_\_

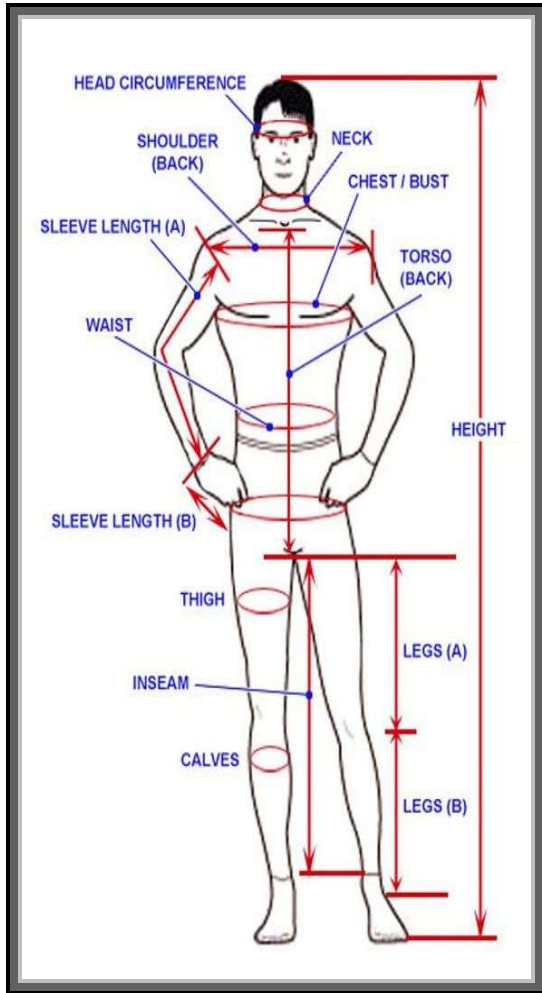


## Information Sheet 2. Establishing And Making Body Reference Point

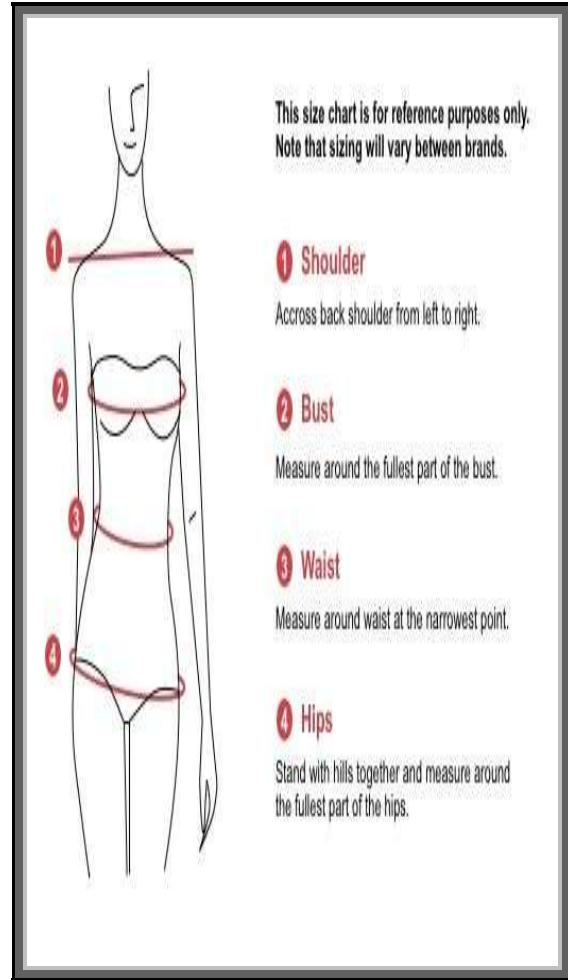
### 2.1 Establishing and Marking Body Reference Points

The body is segmented vertically into quarters and horizontally into five main areas, which are further proportionally sub-divided for static landmark locations. While there are numerous ways to analyze body length proportions, this methodology effectively balances concerns for pattern engineering with weight distribution areas known to effect shape and posture. Quarter division of the body from front to back (commonly referred to as princess lines) is correlated to a measurable leg stance measurement (caliper center of knee to caliper center of high thigh).

Half body division is accomplished with careful placement of a true side seam running from the center of the arm scye (caliper center of biceps located on the high bust line), to a high-thigh point (caliper thickness of the high-thigh on the side of the body and aligned with back crotch depth), to the ankle bone apex and extending to the floor. There is disparity with regard to precise placement of the side seam as indicated by the numerous ways in which the upper body side seam has traditionally be located [41, 67, 71, 72, 61, 73, 66]. When we consider connecting the upper and lower body segments, however, there is less room for discussion.



Im05- Men's BDM reference point



Im06- Women's BDM reference point





Self-Check 2	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. Give short answer (each 5 point)**

1. List out body reference points?

 \_\_\_\_\_

 \_\_\_\_\_

 \_\_\_\_\_

**. Answer the following question!**

**Note: Satisfactory rating 100% points                      Unsatisfactory below**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score = _____
Rating: _____



## Information Sheet 3. Taking And Recording Body Measurements

### 3.1 Taking and Recording Body Measurements

#### ➤ Introduction

Clothing comes in various sizes which if comfortable can be easily worn, but it is the fit of the garment that makes the garment more appealing to the eye. For a properly fitted garment, it is the initial body measurement that plays a vital role. Thus, it is crucial for someone be it a student, a dressmaker, designer to have a thorough knowledge of the correct procedure for taking body measurements.

The measuring of a human figure starts with the knowledge of anthropometric measurement. The term anthropometric is derived from a Greek word Anthropos meaning human figure and metric meaning measurement. Thus, it is the systematic collection of measurement of the human body and garment construction need that measurement of an individual or a dress form's different parts to construct a garment of proper fit.

Following are some points describing the importance of a proper measurement:

- It is very important for taking measuring and thus creating a standard scale.
- Anthropometric data are used in the Readymade Garment Industry.
- Detailed measurements are very useful for standard drafting and making paper patterns.
- Measurements are also important for proper fit as no two people's figures are alike.
- The final look, silhouette, and fit of the garment principally depend upon the measurement taken.
- Measurement is needed for calculating the exact quantity of fabric required, to avoid fabric wastage. Before taking measurement there are certain guidelines that should be followed to avoid any abnormality, mistake, or miscalculation related to fitting in the measurement.





The guidelines are as follows:

Before measurement, one should find out the client's requirement regarding the fit, style, shape, pocket, collars, etc before taking the measurement. An initial talk with the client and showing patterns and fashion pictures and stitched garments can help out a lot.

- It is very important to observe the figure of the client carefully to look upon and record any kind of abnormality or deviation from the normal figure and it should be calculated while taking measurement and pattern making.
- While taking the measurement the client should be advised to stand erect in the natural pose and if possible, in front of the mirror.
- Measurements should be taken with a proper tape without keeping it too tight or too loose against the body.
- Measurement should be taken in proper order and in a certain sequence and should be recorded simultaneously.
- All girth measurements should be taken with the right ease as an allowance for movements or change in figure.
- Repeat of the measurement for conformation.
- Before starting with the measurement location of the structural lines of the garment should be taken care of. It can be done by tying a cord at the waistline, scye line, and neck.
- Measurement should be taken over well-fitted undergarments or over outer garments only if it is fairly fitted.
- Care should be taken at the start and finish of the measurement to avoid extra measurement.
- While taking length measurement tape should be kept absolutely flat, smooth and straight i.e. parallel to the spine or centre front.
- While taking width measurements to be sure that tape does not sag and tape should be parallel to the floor.
- Arc measurement should be taken from centre line to side seam.



➤ **Taking body measurement:**

➤ **Bodice measurement: the various bodice measurement are as follows**

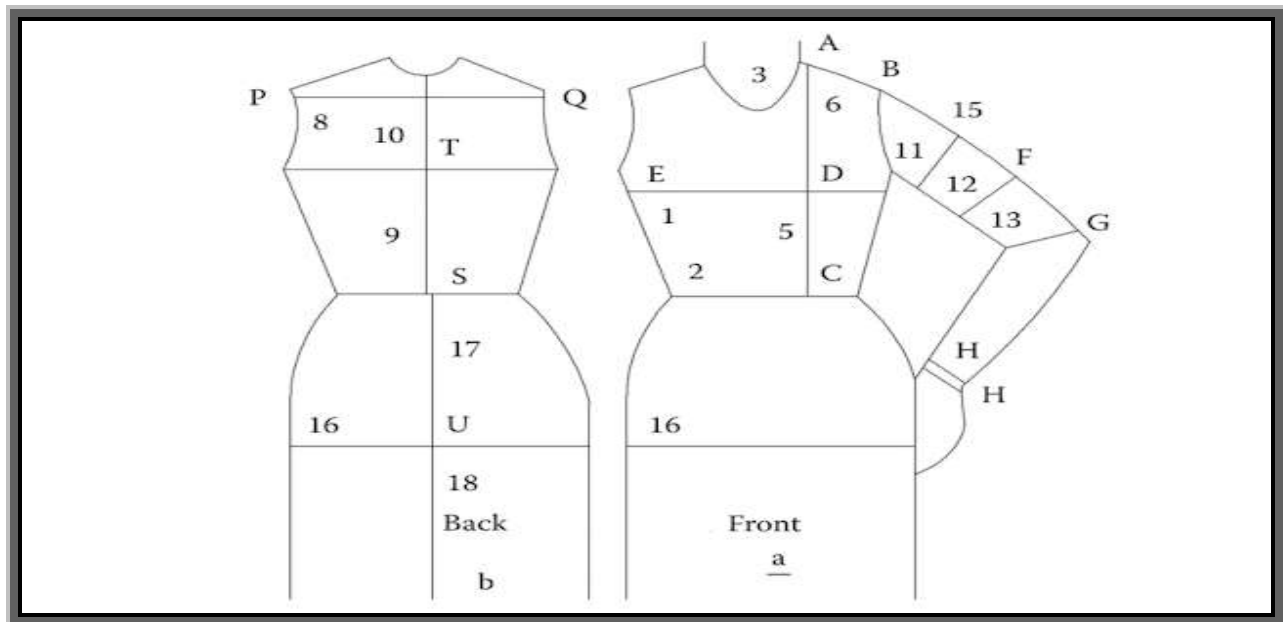
- Bust: Measurement has to be taken about the fullest part of the chest/bust by raising the measuring tape to a level slightly below the shoulder blades at the back.
- Waist: Measurement has to be taken tightly around the waist with the tape straight.
- Neck: Measurement has to be taken around the neck, by keeping the tape slightly above the collar front and along the base of the neck at the back
- Shoulder: Measurement has to be taken from the neck joint to the arm joint along the middle of the shoulder (A to B in Figure).
- Front waist length: Measurement has to be taken down from the high point shoulder (HPS) to waist line through the fullest part of the bust (A to C Figure).
- Shoulder to bust: Measurement has to be taken down from the HPS to the tip of the bust (A to D in figure).
- Separation of bust point: Measurement has to be taken between the two bust/chest points (D to E Figure).
- Across back measurement: Measurement has to be taken across the back between armholes about 3" below the base of the neck (P to Q in Figure).
- Back unit length: Size has to be measured from the base of the neck at the centre back position to the waistline (R to S in the Figure).
- Arm scye depth: Measurement has to be taken from the base of the neck at the centre of the back to a point directly below it and in level with the bottom of the arm where it joins the body (R to T in Figure).

➤ **Sleeve measurements**

- Upper arm circumference: Measurement has to be taken around the fullest part of the arm.
- Lower arm: For the lower arm, measurement has to be taken around the arm at the desired level corresponding to the lower edge of the sleeve.
- Elbow circumference: Measurement has to be taken around the arm at the elbow.
- Wrist: Measurement has to be taken around the wrist.



- Sleeve length: For short sleeves, the length has to be measured from point B to F. For elbow length sleeve, measurement has to be taken from the top of the arm to the elbow point (B to G in figure). For full length, the elbow has to bend slightly and measurement has to be taken down from the top of the arm to the back of the wrist passing the tape over the elbow point (B to H in the figure).



Im07-Body measurement

### ➤ Circumference Measurements

Circumference measurements are taken all the way around the body. The most common circumference measurements are;

- Bust, Waist, High Hip, Full Hip
- Neck, Bicep, Wrist, Thigh, Knee, Calf Ankle

### ➤ Horizontal Measurements

Horizontal measurements are similar to circumference measurements, only we take them on the 'arc'. What is the 'arc'? It is 1/4 of the full circumference. Sounds weird, right? It is, kind of. But, let me explain.

The reason why we need these arc measurements is because if you take a circumference measurement and evenly divide it by 4 to draft your pattern...you'll end



up off balance. What do I mean? Let's think about the body. Our bust is generally bigger than our back, right? Our back side is generally bigger than our front side, right? But, not always! So, that is why we need to know the difference!

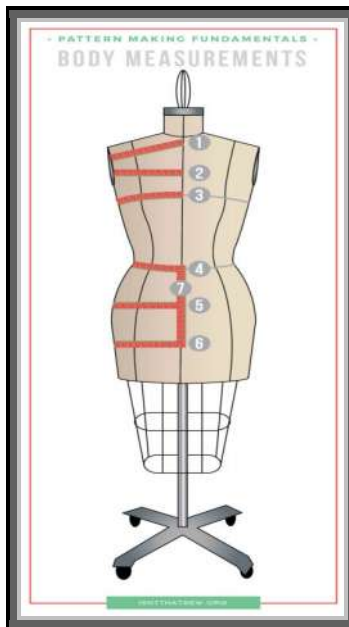
The arc measurement is taken from either center front or center back, to the side seam. Make sense? I hope so!

➤ **FRONT**

- Across Shoulder – CF neck to the tip of your shoulder
- Across Chest, also called high bust, Bust Arc
- Waist Arc, High Hip Arc, Full Hip, Hip Depth

➤ **BACK**

- Back Neck, Across Shoulder, Across Back, Back Arc
- Back Waist Arc, High Hip Arc, Full Hip Arc, Hip Depth

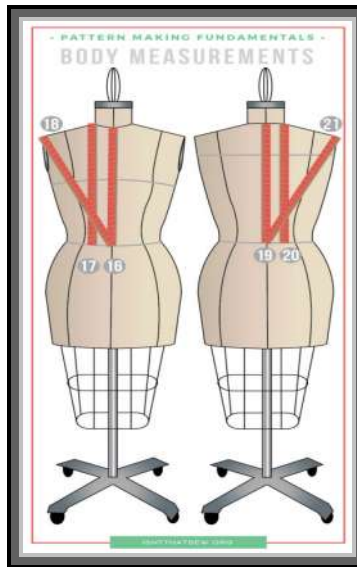


IM08-Horizontal Measurement

➤ **Front and Back Measurements**

The front and back measurements are similar to the vertical or length measurements below, but...for visual reference, it is easier to keep them separate.

- CF Length, High Point of Shoulder (HPS) to waist
- Shoulder Slope, CB Length, HPS to Waist, Shoulder Slope



IM09-Front and back measurement

➤ **Vertical Measurements**

Vertical measurements have to do with height or length. Common vertical measurements include;

- Height, Inseam, Arm Length, Out Seam, Ankle to Knee
- Ankle to Hip, Side Seam Length, Shoulder Length, Side Hip Length



IM10-vertical measurement











Self-Check 3	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. Choose the best answer (each 5 point)**

- 1. Before measurement, one should find out the client’s requirement regarding the \_\_\_\_\_?
  - A. Fit,
  - B. Style
  - C. Shape
  - D. Pocket
  - E. Collars
  - F. All**
  
- 2. Detailed measurements are very useful for standard drafting and making paper patterns.
  - A. **True**
  - B. False

**II. Give short answer (each 5 point)**

- 1. What is the importance of taking proper measurement?
  -  \_\_\_\_\_
  -  \_\_\_\_\_
  -  \_\_\_\_\_
  
- 2. List out among the various body measurement types?
  -  \_\_\_\_\_
  -  \_\_\_\_\_
  -  \_\_\_\_\_
  
- 3. List out horizontal measurements?
  -  \_\_\_\_\_
  -  \_\_\_\_\_



4. List out vertical measurement?

✚ \_\_\_\_\_  
✚ \_\_\_\_\_

**. Answer the following question!**

**Note: Satisfactory rating 100%**

**Unsatisfactory below**

You can ask your teacher for the copy of the correct answers.

**Answer Sheet**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score = \_\_\_\_\_

Rating: \_\_\_\_\_



## Information Sheet 4. Consulting Designer and Product Development Team for Analysis of Measurements

### 4.1 Consulting Designer and Product Development Team for Analysis of Measurements

#### ➤ Introduction

Why is it difficult to make clothes to fit well? One reason that has been given - and what is generally seen as the main reason- is that we lack current easily available anthropometric data. Since the beginning of Ready to wear garment manufacturing the big challenge has been getting the necessary measurements of the general population. Historically it has been easier to get anthropometric data for men because of the need to manufacture uniforms for the military.

Conducting surveys to get measurements for a large pool of women was a different matter and, until recently, a very expensive and time-consuming process. This is changing due to the availability of 3D scanners so hopefully, this data will become readily available in the next few years.

The anthropometric data we have is out of date because we are getting larger, and our body shape is changing since our diet and lifestyle habits have changed.

Using current anthropometric data is definitely necessary and is the essential first step for garment manufacturers to make better fitting clothing, but ... but that is not the whole answer.

Is very recent in the history of garments the perception of its construction as a design project. As soon as clothes started to be perceived that way, other concepts were being introduced, incorporating new scientific knowledge from Anthropometry and Ergonomics, combined with the science of comfort and safety. When it comes to children's clothing, the process requires more attention from the designer, considering the body characteristics of these users, not only accessing reliable and consistent





measurements tables, but also being aware of their body shapes. Many authors have been dedicated to analyze the body, its shape and scale, but only a few study children's body aiming the design of clothing. Hence, the characteristics of the user must be observed and evaluated, studied to meet the requirements of functionality, usability and comfort combined with the aesthetics of the product.

Current methods of creating size and analyzing garment fit are

- ✓ Based on measurements of one “ideal” customer embodied in a single fit model
- ✓ Adjusted for additional sizes by using grade rules to define proportional increase and decrease from the base pattern and
- ✓ Evaluated on a fit model visually and in two dimensions by comparing linear garment measurement to linear measurements.






Self-Check 4	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. Gives short answer (each 5 point)**

1. What Current methods of creating size and analyzing garment fit are?

 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**. Answer the following question!**

**Note: Satisfactory rating 100%**

**Unsatisfactory below 5**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score = _____
Rating: _____



## Operation Sheet 1

## Taking and recording body measurements

DIRECTION: By using the following steps measure fit model and record the data.

OPERATION TITLE: Taking and recording body measurements

PURPOSE: Analyzing Body Measurement

EQUIPMENT, TOOLS AND MATERIALS: -manual/electronic tape measure, pen/pencil, dress form

CONDITIONS OR SITUATIONS FOR THE OPERATION: - given necessary tools & equipment's. You are required to perform the following within 30 minutes

PROCEDURE:-

Step 1- Obtain appropriate tools and equipment

Step 2- Select fit model from the target population

Step 3- Prepare fit model

Step 4- Take all the necessary measurement

Step 5- Record the measurement



<b>LG #34</b>	<b>LO #3. Assess physical characteristics</b>
<b>Instruction sheet</b>	
<p>This learning guide is developed to provide you the necessary information regarding the following content coverage and topics:</p> <ul style="list-style-type: none"><li>• Identifying and comparing Body characteristics</li><li>• Identifying standard body.</li><li>• Identifying and assessing Unique features of potential problems in fit</li><li>• Recording Information on body characteristics</li></ul> <p>This guide will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:</p> <ul style="list-style-type: none"><li>• Identify and compare <i>Body characteristics</i></li><li>• Identify standard body.</li><li>• Identify and assess Unique features of potential problems in fit</li><li>• Record Information on body characteristics</li></ul>	
<b>Learning Instructions:</b>	
<b>Read the specific objectives of this Learning Guide.</b>	
<ol style="list-style-type: none"><li>1. Follow the instructions described below.</li><li>2. Read the information written in the “Information Sheets”. Try to understand what are being discussed. Ask your trainer for assistance if you have hard time understanding them.</li><li>3. Accomplish the “Self-checks” which are placed following all information sheets</li><li>4. Ask from your trainer the key to correction (key answers) or you can request your trainer to correct your work. (You are to get the key answer only after you finished answering the Self-checks).</li><li>5. If you earned a satisfactory evaluation proceed to “Operation sheets</li><li>6. Perform “the Learning activity performance test” which is placed following “Operation sheets” ,</li><li>7. If your performance is satisfactory proceed to the next learning guide,</li><li>8. If your performance is unsatisfactory, see your trainer for further instructions or go back to “Operation sheets”.</li></ol>	



# Information sheet1. Identifying And Comparing Body Characteristics

## 1.1 Identifying and Comparing Body Characteristics

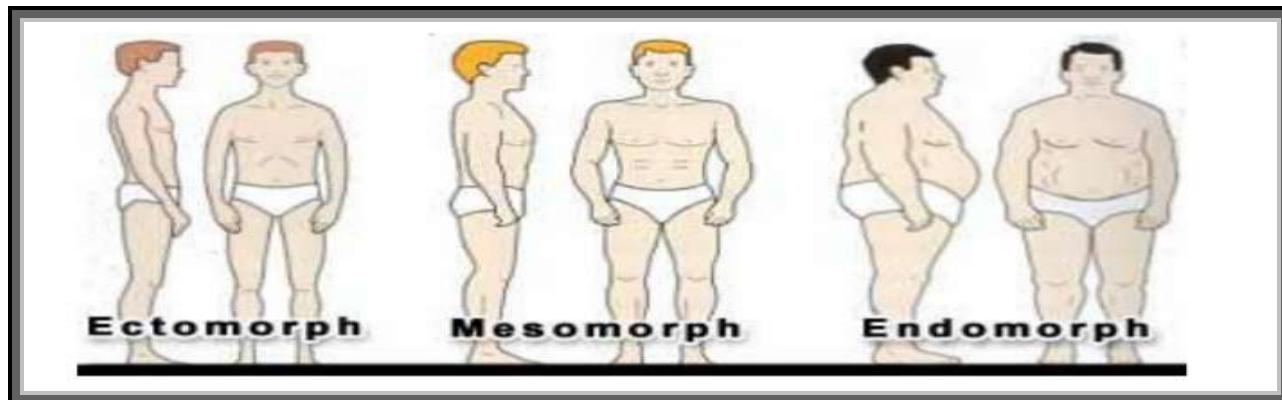
### ➤ Introduction

There are 3 classic body types, called somatotypes that have been described over the years in scientific literature. Interestingly, these different types also are noted as Vata, Pitta, and Kapha in Ayurveda, which is a system of traditional medicine originating in India. Most of the time, people are combinations of these different types with certain predominating characteristics or tendencies. However, occasionally there are people that are classic examples of a particular type.

The following will review these basic types and you can decide which you tend to favor.

### The 3 Classic Body Types

- **Ectomorphs (Vata)** – people with this body type tend to be small framed, and relatively thin with low body fat. Elite marathon runners or ballerinas would be a classic example of someone with this body type.
- **Mesomorphs (Pitta)** – people with this body type tend to be medium framed and have the capacity for having a classic bodybuilder type physique. Often sprinters and other powerfully built, muscular and lean athletes have this body type.
- **Endomorphs (Kapha)** – people with this body type tend to be large framed and carry more mass, both muscle and fat, than the others. World class strength athletes, think worlds-strongest-man type individuals, tend to possess this body type.





## IM11-Classic Body Type

**Some of the most common general body categories include:**

- ✓ Rectangle
- ✓ Triangle Or “Pear”
- ✓ Inverted Triangle Or “Apple”
- ✓ Hourglass

### **SO WHAT ARE THESE DIFFERENT BODY TYPES?**

It’s important to remember that categorizing body types isn’t an exact science.

Oftentimes, there’s a lot of variation within one “type.”

You may find that your individual shape features characteristics from several of the different body types discussed below:



## IM12-Different body type

### ➤ **Rectangle, straight, or “banana”**

If your waist measurements are about the same as your hip or bust, and your shoulders and hips are about the same width, you have what’s called a “banana” or rectangle body type.

Stylists will probably point you toward off-the-shoulder tops, tube dresses, and belted waists.



### ➤ **Triangle or “pear”**

With this shape, your shoulders and bust are narrower than your hips.

You probably have slim arms and a fairly defined waist. Your waist most likely slopes out to your hips.

Stylists often recommend clothing that shows off the waistline.

### ➤ **Spoon**

The spoon body type is pretty similar to the triangle or “pear” shape.

Your hips are larger than your bust or the rest of your body and may have a “shelf”-like appearance.

You likely have a defined waist. You may also carry some weight in your upper arms and upper thighs.

You may be told to look for dresses that have classic “baby doll” cuts or other items with an empire waist.

### ➤ **Hourglass**

If your hips and bust are nearly equal in size and you have a well-defined waist that’s narrower than both, you have an hourglass shape.

Your legs and upper body are probably considered proportionate.

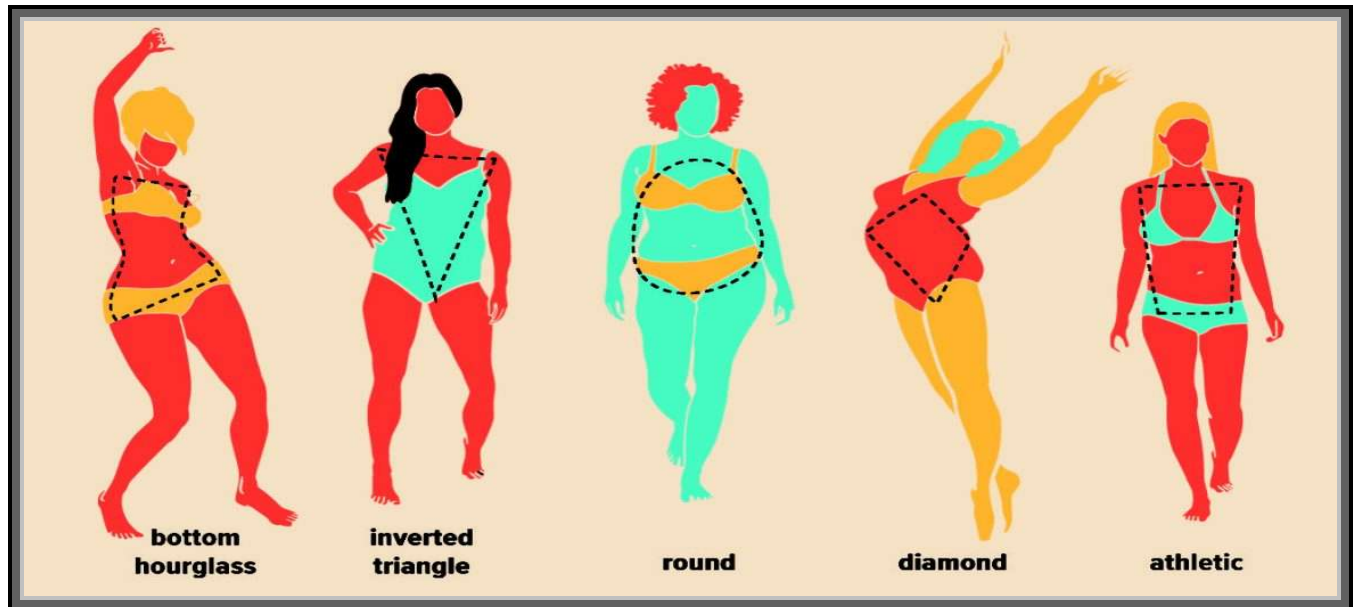
Your shoulders may be slightly rounded, and you most likely have a rounded buttocks.

Form-fitting or tailored clothing have traditionally been designed with this body type in mind.

### ➤ **Top hourglass**

As a top hourglass, you have the general hourglass shape, but your bust measurements are slightly larger than your hips.

Boot cut or slightly flared pants probably fit you well, as do full or A-line skirts and tailored jackets.



### IM13-Different Body Type

#### ➤ **Bottom hourglass**

As a bottom hourglass, you have the general hourglass shape, but your hip measurements are slightly larger than your bust.

Stylists probably point you toward form-fitting knits and dresses.

#### ➤ **Inverted triangle or “apple”**

If your shoulders and bust are larger than your relatively narrow hips, you have what’s known as an inverted triangle or “apple” shape.

Stylists may recommend tops that have some shaping around the waist and more open necklines, or clothing that shows off your legs.

#### ➤ **Round or oval**

If your bust is larger than the rest of your body, your hips are narrow, and your midsection is fuller, you have what’s usually called a round or oval body type.

Stylists usually point people with this body type toward tops that flare at the top or that have vertical details.

#### ➤ **Diamond**

If you have broader hips than shoulders, a narrow bust, and a fuller waistline, you have what’s called a diamond body shape.

With this type, you may carry a little more weight in your upper legs. You may also have slender arms.





Flowy off-the-shoulder or boat-neck tops are usually recommended for this body type.

### ➤ **Athletic**

If your body is muscular but isn't particularly curvy, you might have an athletic body type.

Your shoulder and hip measurements are about the same.

Your waist is narrower than your shoulder and hips, but it isn't overly-defined and looks more straight up and down.

Stylists often point to halter, strapless, and racer back styles.

### ❖ **Anthropometric Classifications**

Anthropometric measurements, such as chest and hip circumference or shoulder-to-shoulder distance, provide detailed information about the body shape. The body shape information is essential for industrial design, clothing design, medical sciences and ergonomics. The measurements have traditionally been made manually from physical subject using a tape measure, but the raise of online shopping and personalized tools set new demand for computerized anthropometric measurements.

### ❖ **Shoulder Slope**

Sloped shoulders differ from rounded or hunched shoulders, which may be caused by poor posture, excess weight, or conditions such as scoliosis.

- **Rounded shoulders** appear rotated towards the front of the body.
- **Hunched shoulders** appear lifted up towards the neck.
- **Sloped shoulders** lack a horizontal plane and slope downwards.

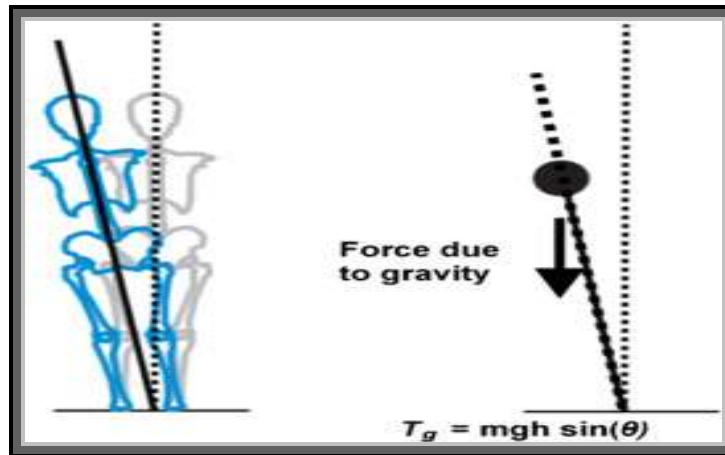
### ❖ **Body Sway And Postural Asymmetry**

**What is posture?**

Posture is defined as the attitude assumed by the body either with support during the course of muscular activity, or as a result of the coordinated action performed by a group of muscles working to maintain the stability.



- **Body sway** is defined as the slight postural movements made by an individual in order to maintain a balanced position, and can be measured by the total displacement of the center of mass relative to the base of support over time.



IM14-Body sway

### There are two types

- **Dynamic posture** is how you hold yourself when you are moving, like when you are walking, running, or bending over to pick up something. It is usually required to form an efficient basis for movement. Muscles and non-contractile structures have to work to adapt to changing circumstances.
- **Static posture** is how you hold yourself when you are not moving, like when you are sitting, standing, or sleeping. Body segments are aligned and maintained in fixed positions. This is usually achieved by co-ordination and interaction of various muscle groups which are working statically to counteract gravity and other forces.

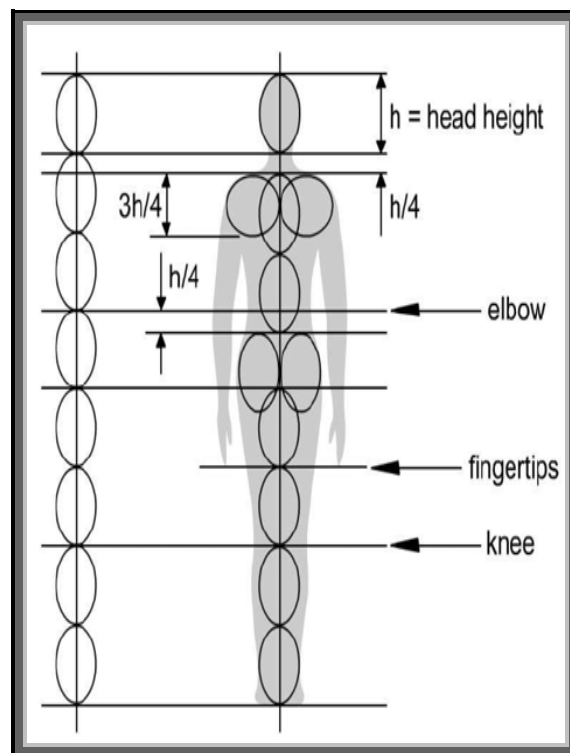


❖ **Postural asymmetry** can be defined by the presentation of the body either not appearing to be identical on the left and right side, or an imbalance between the body halves,” “It’s a deviation from the symmetrical presentation — even-sided or equal presentation of the left and right side.”

❖ **proportions**

While there is significant variation in anatomical proportions between people, certain body proportions have become canonical in figurative art. The study of body proportions, as part of the study of artistic anatomy, explores the relation of the elements of the human body to each other and to the whole. These ratios are used in depictions of the human figure and may become part of an artistic canon of body proportion within a culture.

All bodies are different and no one body is perfect or ideal. Do not confuse proper body proportions with perfect body proportions. Read on to understand why proper body proportions in human figure drawings are important and the best ways to make sure they are always accurate in your own art.



IM15- Proportions of the Human Body with Respect to the Height of the He





Self-Check 1	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:


**I. Give short answer (each 5 point)**

1. List out some of the most common general body categories?


 \_\_\_\_\_


 \_\_\_\_\_


 \_\_\_\_\_

 \_\_\_\_\_


2. What are the 3 Classic Body Types?


 \_\_\_\_\_


 \_\_\_\_\_


 \_\_\_\_\_

3. List out different body types?

 \_\_\_\_\_

 \_\_\_\_\_

 \_\_\_\_\_

 \_\_\_\_\_

**. Answer the following question!**

**Note: Satisfactory rating 100%**

**Unsatisfactory below**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score = \_\_\_\_\_

Rating: \_\_\_\_\_



## Information Sheet 2. Identifying Standard Body

### 2.1 Identifying Standard Body

#### ➤ Introduction

**Standard Bodies** means any of the organizations that create, sponsor or maintain safety, quality or other standards, including ISO, ANSI, CEN and SCC and the like. “Subsidiary” means, with respect to any Person, any other Person of which more than 50% of the outstanding Voting Securities of such other Person (irrespective of whether at the time Capital Securities of any other class or classes of such other Person shall or might have voting power upon the occurrence of any contingency) is at the time directly or indirectly owned or controlled by such Person, by such Person and one or more other Subsidiaries of such Person, or by one or more other Subsidiaries of such Person. Unless the context otherwise specifically requires, the term “Subsidiary” shall be a reference to a Subsidiary of Borrower.

There are three accepted deviations from the standard figure:

- Short-Waisted,
- Long-Waisted, And
- Asymmetrical.

Short- and long-waisted are calculated by ratios of length measurements between the underarm and hips.





Self-Check 2	Written Test
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. Give short answer (each 5 point)**

1. List out the three division of standard boy (figure)?

 \_\_\_\_\_

 \_\_\_\_\_

 \_\_\_\_\_

**. Answer the following question!**

**Note: Satisfactory rating 100% points**

**Unsatisfactory below**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score = \_\_\_\_\_

Rating: \_\_\_\_\_



## Information Sheet 3. Identifying and assessing Unique features of potential problems in fit

### 3.1 Identifying and Assessing Unique Features of Potential Problems in Fit

#### ➤ Introduction

Clothing manufacturers can no longer meet the demand of the consumers because they do not have many size options that cater for all body sizes and shapes as fashion is for everybody. They are only concerned about providing clothes for usually offered sizes. The extremely small and big sizes are ignored. They have failed to improve the size characterization of our population to tailor apparel according to sizes, weight, and consumer shapes. On the other hand, manual measuring is tiresome, laborious, and requires alert operators.

The manual measuring is a hard task and the measurer's judgments are sometimes misleading, depending on the mood. Bye et al. noted that the greatest challenge was in acquiring accurate measurements to generate garment fit in the way preferred by the wearers. Details of the body measurements, as well as specific information relating to the body to be fitted, should be accurately captured to fit the body structure. These measurements are analyzed and utilized to create a match between the body and the clothing item.

Fitting issue of garments has impact on the customers buying decision. The main concern of customers especially teenagers and women is to purchase garments that have proper fitting and yet fashionable. Although cuts and styles of the clothes we buy is important, the more important factor that influences the buying decision is the proper fitting which is according to the persons body structure. Clothes are not only for body protection and covering, but also have social and emotional aspects attached to them. For example - a petite girl wearing clean and proper fitted clothes that are not too tight and loose would look more flattering then another petite woman who wears tight fitting non-clean dress.



Poor posture alters the body configuration, causing key body components, such as the shoulders, breasts, and buttocks, to move out of alignment.

The five most common incorrect posture variations include:

- Overly Erect Posture
- Slumped Posture
- Swayed Back
- Tilted Hip-Forward Posture And
- Tilted Hip-Backward Posture

Analysis of the neck included neck thickness, the neck-to-shoulder transition, collarbone visibility, and neck tilt. Neck thickness produced three groups:

- Thin
- Average And
- Thick

The neck-to-shoulder transition produced two groups:

- Sharp And
- Smooth

Collarbone visibility ranged from

- Flat
- Nearly Flat
- Visible And
- Prominent

Neck tilt ranged from: (Fig. 16)

- Straight
- Slightly Forward
- Forward And





- Far Forward

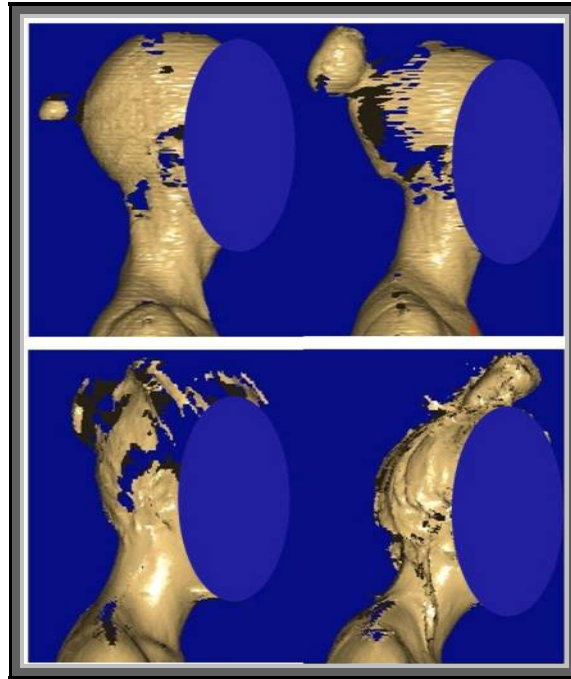


Fig.16-Examples of neck tilt, from top left, straight, slightly forward, forward, far forward

Analysis of the shoulder included shoulder length description, shoulder point sharpness, shoulder point alignment, and shoulder slope description. Shoulder length description produced three groups:

- Short
- Average And
- Long

Shoulder point sharpness produced two groups:

- Sharp And
- Soft

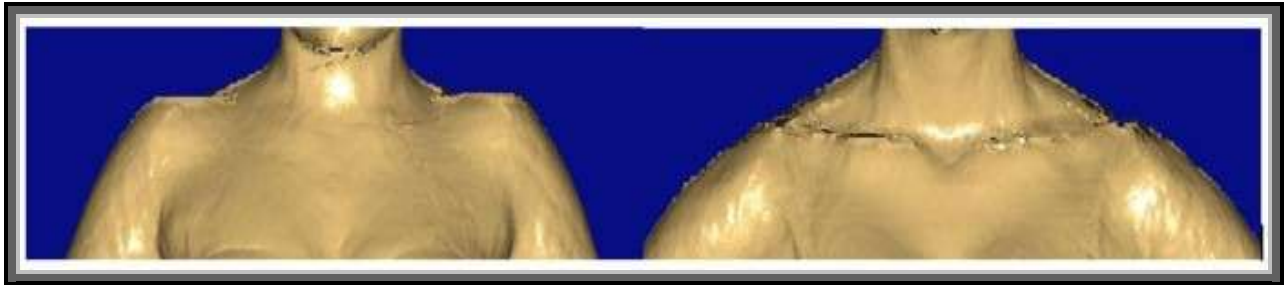


Fig17:Examples of shoulder point sharpness, from left: sharp, smooth

Analysis of the shoulder blades included

- Prominence Point Alignment
- Blade Prominence
- Blade Description, And
- Blade Width.

Prominence point alignment was assessed by marking the prominence points with a transverse plane and seeing where on the body it matched.

Prominence point alignment occurred

- At The Armpit
- At The Arm Join And
- Above The Arm Join

Blade prominence ranged from

- Flat
- Almost Flat
- Visible And
- Prominent



Shoulder blade width was assessed by marking the blade prominence points with sagittal planes and determining the distance between them in relation to the entire back.

Blade width produced three categories:

- Narrow
- Average And
- Wide

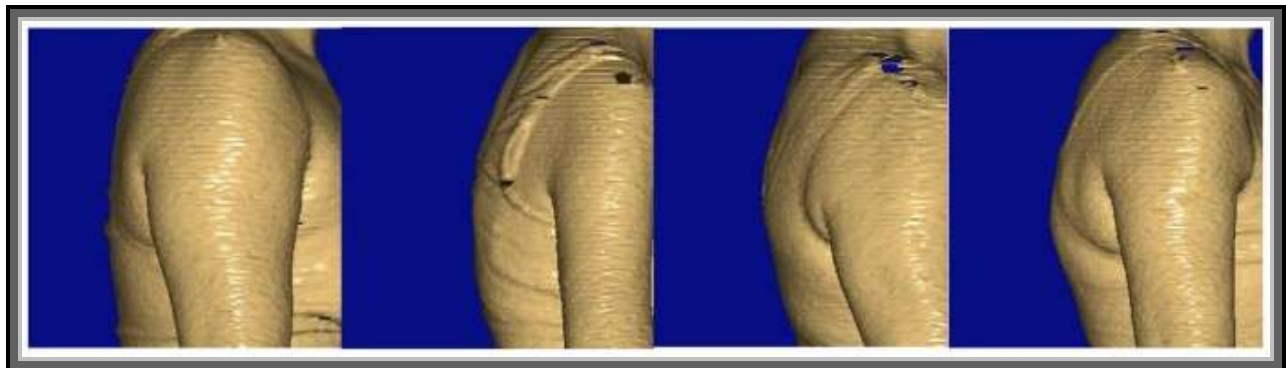


Fig18-Examples of shoulder blade prominence, from left: flat, almost flat, visible, prominent

Analysis of the bust included descriptions of bust fullness and bust point width, as well as determination of ribcage containment.

Bust fullness ranged from:

- Very Small
- Small
- Average
- Full, And
- Very Full



Ribcage containment was determined by assessing if the breasts were wider than the torso at the bust line, and produced two categories:

- Contained
- Not Contained

Bust point width was assessed by marking the bust points with sagittal planes and determining the distance between them in relation to the entire front.

Bust point width produced three categories:

- Narrow
- Average And
- Wide

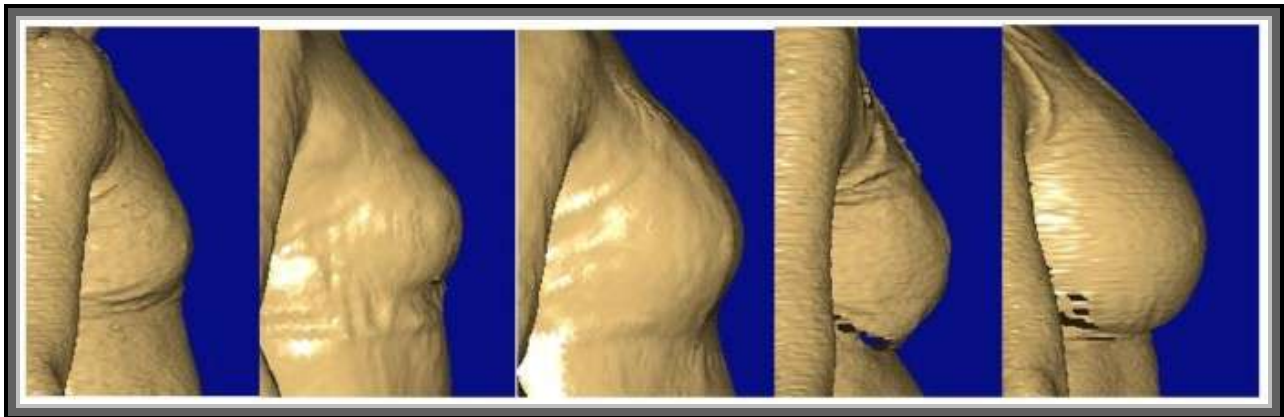


Fig19-Examples of bust fullness, from left: very small, small, average, full, very full

Analysis of the buttocks included:

- Descriptions Of The Prominence
- Length
- Fullest Part And
- Alignment



Buttocks prominence produced two categories:

- Flat And
- Prominent

Buttocks length was determined by how much space the buttocks took up between the crotch and the waist; there were two categories:

- Short And
- Long

The fullest part of the buttocks was discovered by placing transverse planes at the top, bottom, and fullest part of the buttocks, resulting in three categories:

- Low
- Middle And
- High

The transverse plane located at the fullest part of the buttocks bisected the entire body, allowing assessment of alignment; this produced four categories:

- At The Hip
- Slightly Below Hip
- Below Hip And
- Far Below Hip

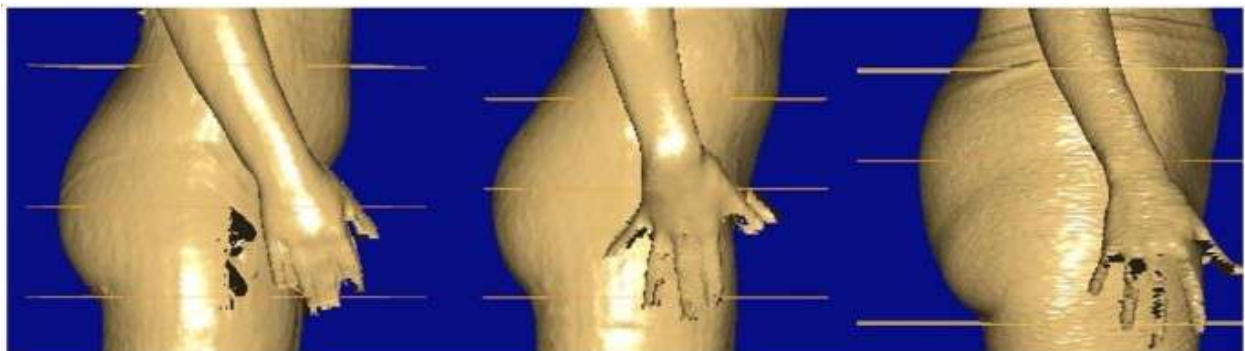


Fig 20-Examples of buttocks fullest part location, from left: low, middle, and high



GLBFP alignment produced five categories:

- Below Waist
- Above High-Hip
- At High-Hip
- Slightly Below High-Hip And
- Below High-Hip

Two subjects had combinations:

- At Waist And At High Hip And
- At Waist And Below High-Hip

The GLBFP extension was determined by identifying if the plane that was used to identify the GLBFP passed through the bust, indicating that the GLBFP was more prominent than the bust. The GLBFP extension produced three categories:

- Yes Extended
- Aligned And
- Not Extended

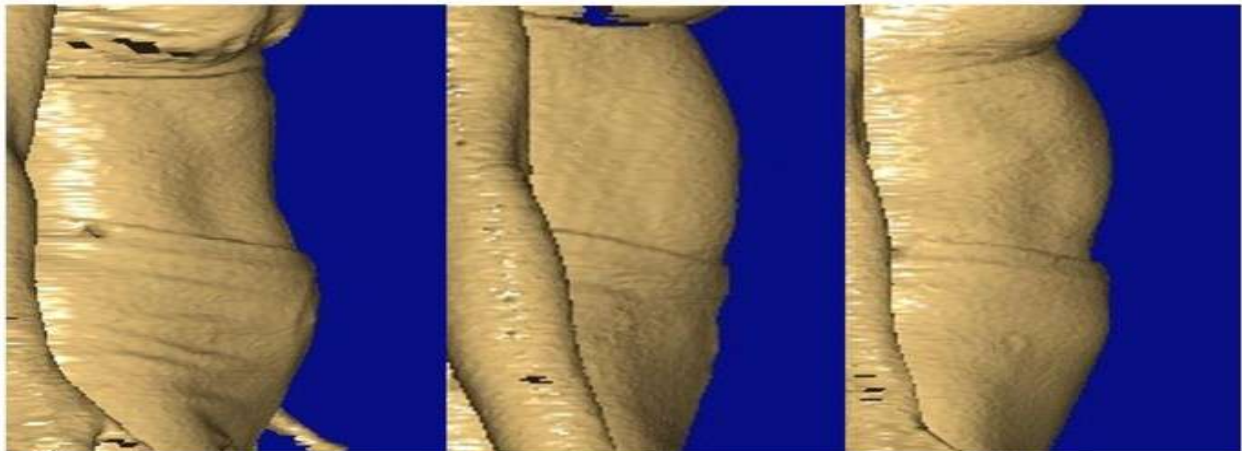


Fig-21 Examples of the GLBFP identifier, from left: abdomen, stomach, and both



Analysis of the GLBSP included location and alignment identification, and description of the prominence. GLBSP location produced two categories:

- High-Hip And
- Thigh

GLBSP alignment produced five categories:

- Below Crotch
- At Crotch
- Above Crotch
- Below Abdomen And
- At Abdomen

GLBSP description produced five categories: flat (5), softly pointed (10), pointed (2), softly rounded (8), and rounded (14).



Fig21-Examples of GLBSP location, from left: high-hip, thigh



Self-Check 3	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. choose the best answer (each 5 point)**

1. Fitting issue of garments has impact on the customers buying decision.
 

A. True
B. False

**II. Give short answer (each 5 point)**

1. List out the five most common incorrect posture variations include:

- ✚ \_\_\_\_\_
- ✚ \_\_\_\_\_
- ✚ \_\_\_\_\_
- ✚ \_\_\_\_\_

2. List out the three categories of bust point width:

- ✚ \_\_\_\_\_
- ✚ \_\_\_\_\_
- ✚ \_\_\_\_\_

**. Answer the following question!**

**Note: Satisfactory rating 100% points** **Unsatisfactory below**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score = _____
Rating: _____





## Information Sheet 4. Recording Information on body characteristics

### Why Are Records Important?

Records are important for their content and as evidence of communication, decisions, actions, and history. As public institutions, school boards/authorities are accountable to the public and to government. Records support openness and transparency by documenting and providing evidence of work activities and by making them available to the public. Records support quality program and services, inform decision making, and help meet organizational goals.

What Activities and Transactions Should Be Documented? Records include any information that documents the mission and planning objectives of the organization which include planning, decisions, actions, and results, as follows:

- Results of significant daily activities that support the mission and objectives of our organizations;
- Advice and recommendations made to management and the decisions and actions taken as a result, along with supporting documentation;
- Problems encountered in organizational operations and the steps taken to resolve the problems;
- Interactions with the public, customers, clients, stakeholders, consultants, vendors, partners, and other government jurisdictions;
- Verbal communications such as meetings, telephone calls, and face-to-face discussions where significant actions or decisions have occurred;
- Legal agreements of any kind, including contracts, along with supporting documentation;
- Policy, organizational planning, performance measurement, and budget activities, and supporting documentation;
- Work done for the government by consultants and other external resources; and
- Actions and decisions where payments are made or received, funds committed, services delivered, or obligations incurred.



What are official records? Not all records and information need to be retained. Records and information that should be retained as part of a records management are records that:

- Are required to support daily operations; or
- Document and provide evidence of business transactions; or
- Are required by legislation; or
- Protect the rights of citizens and the government; or
- Provide evidence of compliance with accountability or other organizational requirements; or
- Will have some future organizational, financial, legal, research, or archival value to the government and public; or
- Are personal information that has been used by the organization which is required to be retained pursuant to the legislation; or
- Evidence of compliance with a duty/responsibility to report a child in need of protection. Official records should be stored securely so that they will be readily available to those who need them and are authorized to access them. This applies in both our paper-based and our electronic work environments.



Self-Check 4	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. choose the best answer (each 5 point)**

1. Records are important for their content and as evidence of communication, decisions, actions, and history.  
A. True B. False
2. Records include any information that documents the mission and planning objectives of the organization which include planning, decisions, actions, and results.  
A. True B. False

**. Answer the following question!**

**Note: Satisfactory rating 100% points                      Unsatisfactory below**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score = _____
Rating: _____



<b>LG #35</b>	<b>LO #4. Select Representation Of Fit Model</b>
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<b>Instruction sheet</b>	
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This learning guide is developed to provide you the necessary information regarding the following content coverage and topics:

- Identifying and evaluating Types of dress forms
- Selecting and making Comparisons to fit model

This guide will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Identifying and evaluating Types of dress forms
- Selecting and making Comparisons to fit model

**Learning Instructions:**

**Read the specific objectives of this Learning Guide.**

1. Follow the instructions described below.
2. Read the information written in the “Information Sheets”. Try to understand what are being discussed. Ask your trainer for assistance if you have hard time understanding them.
3. Accomplish the “Self-checks” which are placed following all information sheets
4. Ask from your trainer the key to correction (key answers) or you can request your trainer to correct your work. (You are to get the key answer only after you finished answering the Self-checks).
5. If you earned a satisfactory evaluation proceed to “Operation sheets
6. Perform “the Learning activity performance test” which is placed following “Operation sheets” ,
7. If your performance is satisfactory proceed to the next learning guide,
8. If your performance is unsatisfactory, see your trainer for further instructions or go back to “Operation sheets” .



## Information Sheet 1. Identifying and evaluating Types of dress forms

Dress forms are used by fashion institutions, sampling department in a garment factory, in boutique houses, and by haute couture designers. It looks like a simple tool. But dress forms are responsible for the fit of the garment that you are wearing.

In this article, we will discuss different types of dress forms and going to know about what a dress form is along with its importance.

A dress form is a three-dimensional model of a torso or an entire body, molded to take the shape of the human body. It comes in different sizes which often differ according to manufacturers. It is mostly used for fitting clothing that is being designed or sewed. These are available for male, female and kids dress forms.



Fig.22 Dress forms for garment fit checking



Most often people get confused with the difference between dress form and mannequins. The difference lies in the material with which they are made. A dress form is usually constructed with a hard interior covered by foam and fabric covering making it helpful for pinning.

Whereas a mannequin is made of hard material like fiberglass, plastic or even metal, most often depicting an entire body. Another difference is the postures between them. A dress form will always have a straight pose as it needs to justify draping. Whereas a mannequin can be of any desired position to complement the dress as well as act as an aesthetic addition to a retail store.

### ➤ **Different Types of Dress Forms**

- **Display Dress Form**

These are the most basic of them and are mostly used for displaying garments and the creation of photoshoot samples. It comes in various sizes with no standard measurements and is the cheapest of them all. Its features include adjustable heights and easy pinning.



Fig 23 Display dress form



- **Professional Dress Form**

As the name suggests these are made for the sole purpose of the fitting, draping, pinning, etc. these dress forms are a must for sampling department, boutique houses, etc.

The sizing of these is very much defined but can vary according to manufacturers. the difference between this and the above will be the features and longevity, as a result, these are priced much higher.



Fig 24. Professional dress form

These features include adjustable shoulder for easy put on and removal of garments, wheel stand for easy mobility, caged bottom to assist hemming. These also come with adjustable or removable arms which can be very much useful for the fitting of sleeved garments. It is advised to undo the collapsing of the shoulder as keeping it like that for a long time can damage the hinges.

- **Bifurcated dress form**

It is similar to that of the above, with the only difference being included legs for fittings of shorts and pants. Also, these are costlier than the above.



Fig 25. Bifurcated dress form

- **Adjustable dress form**

As the name suggests, in this dress form the measurements can be changed according to various sizes. These are very similar to that of display dress-forms in size and functionality. The sizes can be changed with the dials which are placed at critical measuring points as in center back, center front, side seam, neck. Also, they are height adjustable along the waist. It must be checked that the expansion made are uniform all-over otherwise fitting can get altered.



Fig 26. Adjustable dress form





The drawback of these is the lack of collapsible shoulders and is not ideal for pinning or draping.

The reason being that as the dress-form expands; it creates gaps along various critical seam lines like the center front, side seams, waist, and other marking points. Also, these dress-forms lose the advantage of customization due to the ridges formed during expansion.

These are mostly light-weighted with a hollow interior and are fragile in use.

### ➤ **How to use dress-forms**

Most of the dress form comes with the pre-determined making of the various levels on which major measurements are taken. Below are the four major levels of marking.

- **Bust level-** It is placed over the apex point which is the highest point of the bust.
- **Under bust line-** It is placed a few inches below the actual under bust to compensate for the shape of the bust.
- **Waistline-** It is the narrowest part of the form and it differentiates the lower body from that of the upper. Comparing to an actual figure it is at the point where the belly button is.
- **Hipline-** It is the widest part of the bottom area.

These are the basic markings of a form, but in absence of the marks, one can pin ribbon tape over that point around the form. But it should be taken care that the ribbons are straight and parallel to each other.



Fig 27. Dress form measurement

Even though dress forms available in the market are of various sizes but it is hardly often that a person has the same size as that of the form.

For that, it is always advisable to pick a size that is smaller than his/her actual size and pad around the critical place to make it even. Thus, the use of pads acts as a little addition to forms to get that perfect shape.

The critical points for the addition of pads can be bust, waist, side seam, hip, center back and it should be taken care that the pads are attached or pinned equally all over the form.



Dress forms are a very costly tool and prices vary with the manufacturer, materials, types, etc. Also, they come in the form of fully pin able and partially pin able which should be there in the manual of the dress form?



Dress forms are the ultimate tool for a fitting and are a must for every designer but being expensive it can also make it inaccessible. For that, a custom cheap alternative can be made in the home also with just duck tapes. Have a look at this video to make one for yourself.







<b>Self-Check 1</b>	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. choose the best answer (each 5 point)**

- 1. Dress forms are used by fashion institutions, sampling department in a garment factory, in boutique houses, and by haute couture designers.  
A. True B. False
  
- 2. Dress forms are the ultimate tool for a fitting and are a must for every designer but being expensive it can also make it inaccessible.  
A. True B. False

**II. Give short answer (each 5 point)**

- 1. List out different types of dress form?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**. Answer the following question!**

**Note: Satisfactory rating 100% points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score = _____
Rating: _____



## Information Sheet 2. selecting and making Comparisons to fit model

Fitting a garment to body contours is one of the key properties besides the design and quality of the fabric used and evaluated by the end-user. As a garment is composed of different materials, the final garment fit depends on the interaction of its parts as well as on the body silhouette, pattern construction and fashion trends. There are many definitions of the garment fit

[1], some of which define garment fit as: n 'Fit is defined as the ability to be the right shape and size' - The Oxford Dictionary

[2]. n 'Clothing which fits, provides a neat and smooth appearance and will allow maximum comfort and mobility for the wearer' - Shen and Huck

[3]. Irrespective of definition, garment fit to the body is generally discussed from an aesthetic and functional point of view. From the aesthetic point of view, garments fulfill the fit criteria according to the wishes of fashion trends.

From the functional point of view, clothing fit is mostly observed with respect to clothing comfort. Evaluation of garment fit to the body could be done on a live, scanned or parametric human body model. However, the assessment of garment fit to the body should be the same for a real and virtual garment. A live model can be any human being irrespective of gender, age, and body construction.

In a virtual environment the body can be presented as a parametric and scanned body model on the basis of body measurements and silhouette of a live human being. A scanned body is obtained by using 3D body scanners and presents exactly the same 3D form as a real human body. 3D body scanning has some limitations that are the subjects of many researches nowadays.



A parametric human is a digital human body model generally based on user-specified body size inputs and it is mostly integrated into CAD systems for garments such as Gerber, Lectra , Assyst-Bullmer and Optitex .

In general, garment fit depends of the human body position, body measurements and properties of materials applied and clothing design. The clothing fit to the body could be evaluated subjectively and objectively. Normally, in a real environment, the clothing fit is assessed subjectively on a live model or dress forms (dummy) using several methodologies and standards for subjective evaluation of the clothing fit to the body.

Definition of evaluation areas For evaluation of the fit of real and virtual skirts to the human body, three specific areas (A, B and C) were defined valid for all skirt styles (Figure 28) according to the front, side and back view.

Selection of the evaluation areas resulting from construction rules for the pattern making of skirts was under taken Body measurements of the waist, hips and length line are the basic ones needed for constructing the pattern and defining the allowance for comfort of a skirt.

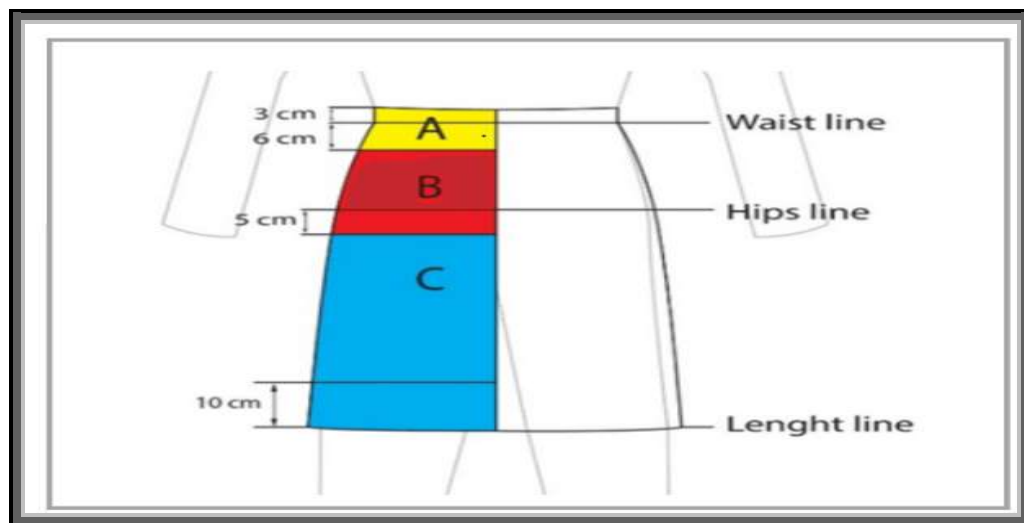


Fig28. Evaluation areas of a skirt



Fig29. Fitting results for skirt style



Self-Check 2	Written Test
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. choose the best answer (each 5 point)**

1. As a garment is composed of different materials, the final garment fit depends on the interaction of its parts as well as on the body silhouette, pattern construction and fashion trends.  
A. True                                      B. False
  
2. Garment fits, provides a neat and smooth appearance and will allow maximum comfort and mobility for the wearer.  
A. True                                      B. False

. **Answer the following question!**

**Note: Satisfactory rating 100% points                      Unsatisfactory below**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score = _____
Rating: _____





<b>LAP Test</b>	<b>Practical Demonstration</b>
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Name: \_\_\_\_\_ Date: \_\_\_\_\_

Time started: \_\_\_\_\_ Time finished: \_\_\_\_\_

Instructions: Given necessary templates, tools and materials you are required to perform the following tasks within required hours.

Task 1: Taking and recording body measurements



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This TTLM was developed on the **December 24- 31/2020G.C at Bishoftu.**

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## ANSWER KEY FOR MODULE TITLE: ANALIZE FIT MODEL

### LO, #1- Scope Design Brief In Relation To Target Market

Self-Check 1	Written Test
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

#### I. Choose the best answer (each 2 point)

3. \_\_\_\_\_ is a profile of the most likely customers or clients of a specific product or service.

A. Target Market

**C. A&E**

B. Target population

D) All

4. We can segment our target market/ population by their?

E. Teen

F. Mature Age

G. Toddle

**H. All**

Self-Check 2	Written Test
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

#### I. Choose the best answer (each 2 point)

2. \_\_\_\_\_ is the study of a population based on factors such as age, race, and sex.

**A. Demographics**

C. Gender

B. Ethnicity

D. All

#### II. Give short answer



1. \_\_\_\_\_ is the most fundamental demographic parameter?

❖ **Number of individuals within a population**

Self-Check 3	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. Give short answer (each 2 point)**

2. What is the purpose of design?

✚ **Purpose Design is about being clear about who you are and what you stand for – both as an organization or as an individual.**

✚ **The purpose of design is much more closely linked to strategy than aesthetics**

Self-Check 4	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. Choose the best answer (each 2 point)**

3. To improve efficiency pattern makers use standard sizes and measurements to draft basic patterns.

C. **True**

D. False

4. Anthropometry as anthropological method deals with the measurement of size, weight, and proportions of the human body.

**C. True**

D. False

**LO #2- . Measure Fit Model**



Self-Check 1	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. Give short answer (each 5 point)**

1. List out tools and equipments used for measurement taking?

A. Electronic/manual tape measure

B. 3D Body scanner

C. Dress form

D. Pen/pencil

Self-Check 2	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. Give short answer (each 5 point)**

2. List out body reference points?

A. Bust point

B. Chest point

C. Waist point

D. Neck point

E. Shoulder point



**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. Choose the best answer (each 5 point)**

3. Before measurement, one should find out the client's requirement regarding the \_\_\_\_\_?

- G. Fit,
- H. Style
- I. Shape
- J. Pocket
- K. Collars

**L. All**

4. Detailed measurements are very useful for standard drafting and making paper patterns.

B. **True**

B. False

**II. Give short answer (each 5 point)**

5. What is the importance of taking proper measurement?

**A. For standard drafting and making paper patterns.**

**B. To creating a standard scale**

**C. For proper fit**

6. List out among the various body measurement types?

**A. Bust/chest**

**B. Shoulder**

**C. Back shoulder width**

**D. Neck**

**E. Shoulder to bust tip**

**F. Breast width**

**G. Front shoulder to waist**

**H. Nape to waist**



7. List out horizontal measurements?

A. Back shoulder width

B. Shoulder blade

8. List out vertical measurement?

A. Garment length

B. Nape to waist

C. Front shoulder to waist

D. Shoulder to breast tip

Self-Check 4	Written Test
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. Gives short answer (each 5 point)**

1. What Current methods of creating size and analyzing garment fit are?

Based on measurements of one “ideal” customer embodied in a single fit model

Adjusted for additional sizes by using grade rules to define proportional increase and decrease from the base pattern and

Evaluated on a fit model visually and in two dimensions by comparing linear garment measurement to linear measurements.





### LO #3- . Assess Physical Characteristics

Self-Check 1

Written Test

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

#### I. Give short answer (each 5 point)

4. List out some of the most common general body categories?

+ Rectangle

+ Triangle Or "Pear"

+ Inverted Triangle Or "Apple"

+ Hourglass

5. What are the 3 Classic Body Types?

+ Ectomorphs (Vata)

+ Mesomorphs (Pitta)

+ Endomorphs (Kapha)

6. List out different body types?

+ Rectangle

+ Triangle

+ Spoon

+ Hourglass

+ Top hourglass

+ Bottom hourglass

+ Inverted triangle

+ Round or oval

+ Diamond

+ Athletic



Self-Check 2

Written Test

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. Give short answer (each 5 point)**

2. List out the three division of standard boy (figure)?

Short-Waisted,

Long-Waisted, And

Asymmetrical



Self-Check 3	Written Test
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. choose the best answer (each 5 point)**

3. Fitting issue of garments has impact on the customers buying decision.

- True
- B. False

**II. Give short answer (each 5 point)**

2. List out the five most common incorrect posture variations include:

- Overly Erect Posture
- Slumped Posture
- Swayed Back
- Tilted Hip-Forward Posture And
- Tilted Hip-Backward Posture

4. List out the three categories of bust point width:

- Narrow
- Average And
- Wide



Self-Check 4	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. choose the best answer (each 5 point)**

3. Records are important for their content and as evidence of communication, decisions, actions, and history.

B. **True**

B. False

4. Records include any information that documents the mission and planning objectives of the organization which include planning, decisions, actions, and results.

B. **True**

B. False



## LO #4- . Select Representation of Fit Model

<b>Self-Check 1</b>	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

### I. choose the best answer (each 5 point)

- Dress forms are used by fashion institutions, sampling department in a garment factory, in boutique houses, and by haute couture designers.  
B. **True** B. False
- Dress forms are the ultimate tool for a fitting and are a must for every designer but being expensive it can also make it inaccessible.  
B. **True** B. False

### II. Give short answer (each 5 point)

- List out different types of dress form?
  - ✚ Adjustable dress form
  - ✚ Bifurcated dress form
  - ✚ Professional dress form
  - ✚ Display dress form



Self-Check 2	Written Test
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**I. choose the best answer (each 5 point)**

3. As a garment is composed of different materials, the final garment fit depends on the interaction of its parts as well as on the body silhouette, pattern construction and fashion trends.

- B. True B. False

4. Garment fits, provides a neat and smooth appearance and will allow maximum comfort and mobility for the wearer.

- B. True B. False