INTRODUCTION

Physical fitness and a healthy mind is an inevitable aspect of human life. Swami Vivekananda strongly stressed the importance of physical fitness when he said, “Be strong my young friends, that is my advice to you. You will be nearer to heaven through football than through the Gita”.

Physical education is without doubt an important branch of education today; it opens unique vistas of potentially contributing individuals to society. It is an inevitable and significant part and parcel of the school education program and curriculum; it is a means of the joy of kids. It is a vital part of education through participation in various sports, games, exercises of any sort; any physical education program will definitely brighten the future of the present generation. In fact, sports and physical education should be treated as one of the fundamental rights of the young and old alike. Physical education is simply a process of directing the movements of the body, of the physical activities—the aim being to achieve an all-round development of the body, brain, mind and soul.

Man is designed by nature to be a biologically active and energetic being. Man has to be vigorously active and energetic. It is a well acknowledged fact that it is only through physical activity, hard physical labour that a human being can achieve physical, mental, intellectual, emotional and social fitness and health.

Sports, Games and Physical Education are preventive as well as therapeutic; they prevent various diseases before they crop up and many diseases are remedied by a regular participation in various sports and games. Unlimited games are played not only by children but by people of every age-group and every gender as a means of recreation and entertainment.

Sports and games are therapeutic; they can prevent many diseases; high and low blood pressure, hypertension, diabetes and anaemic condition and various other similar diseases can be prevented as well as kept under control through a regular participation in exercises and sports and games. Aerobic exercises like swimming, running, jogging or biking regularly are known to help solve these problems also along
with the implementation of proper diet as per an individual’s need. Obesity and overweight or under-weight problems can be managed and controlled with the help of certain physical activities and exercises along with a proper diet.

Regular and constant physical activities and exercises are a must to prevent and keep away diseases. Hence, people need to do right and proper exercises and develop the habit of keeping their body healthy, fit and fine right since the beginning. Popularization of sports and games in today’s age is the need of the hour. Information regarding the importance of balanced diet and most important of all the harmful effects of lack of physical activity and sports on the general health, fitness and well-being of human-beings needs to be spread amongst the masses. Most people are well aware about the benefits of sports and games; they join various Sports & Health Clubs and Gymnasiums to remain fit and fine; they have already joined the ‘Fitness Revolution’ in the modern age.

**Physical fitness**

The major components of Physical Fitness are:-

1. Muscular Strength
2. Muscular Endurance
3. Cardio-respiratory Endurance
4. Agility
5. Speed
6. Flexibility
7. Balance

To develop physical fitness is the most important objective of all physical educators

**Handball**

The modern times. It is played by men and women in indoor and outdoor fields throughout the world. A regular and disciplined preparation and practice is demanded on part of the players to win in handball matches irrespective of their levels be it school, college, university, state, national or international. Handball is a highly competitive, struggling game; it requires high levels of fitness, co-ordination, flexibility, agility and
neuro-muscular co-ordination. It can help in the development of strength, speed, endurance, power, neuromuscular skill and co-ordinations of all parts of body; the game of handball involves various actions such as running, dodging, jumping, stretching and other movements which require balance and pose.

Handball is a recreational and enjoyable game; collegiate students like to play it both to enjoy it amateurly and to raise their career graph. Handball has always been regarded as a game of perception, timing, accuracy, and agility along with a high level of physical fitness. However, since a player has to change his situation/position in the game frequently, it tests a player’s reserve state of athletic ability.

Tests

Test is the base of all types of measurement and evaluation. The specific importance of tests can be explained as in the Scientific way as base to measurement, Achieving Purpose, Tests for Economy and Promotion of Scientific Approach.\(^4\)

In any competition, the success of any team depends on contribution of each team member, for which selection of perfect player is needed. Skill tests or Fitness tests really helps lot to the selectors to select the skillful players.\(^4\)

Measurement of Sports Performance

Sports performance is measured through tests that are called performance standards. Performance standards are pre-established criteria that needs to be fulfilled by players/sportspersons to acquire their grades. Performance-based objectives are an important part of the curriculum-building process. Some form of assessment is generally used by the sports coaches to evaluate the progress of their players with respect to these goals.

A sports coach makes use of performance standards as a measurement tool to assign grades to the players of a team. A sports teacher has to realistically evaluate the sports performance of his players; hence call him prejudiced; for this he should have a detailed knowledge of the capabilities of his players. His evaluation must be realistic; for example a to ask 12-year-old girls to run a distance of one kilometer in 8 minutes may be an unrealistic standard. The sports coach won’t get any realistic results; It may be
that the girls had not sufficient educational experiences and opportunities to develop their cardiovascular fitness and running skill necessary to achieve this goal. Similarly, if the sports teacher finds the above cited parameters with relative, his goals may still have been unrealistic and not stringent. Hence, proper standard setting is a more difficult task than the assessment and evaluation techniques for a sports teacher.

For being a good Hand Ball player, it is important to look after the health of the players and their hand-ball skills. In the modern game of hand ball, is put on the development of skills because a player has to take different positions while playing this game. A player may have to prepare a ball to shoot it in goal by dodging to opponent team. Take different positions during the hand-ball game as shooter, defender, offender, blockers etc. Take his particular position and according to situation, change his sides. Change his position as a defender; he has to do this keeping in view the offender. Defend a Group as per situation. Defend single player according to situation. Constantly concentrate on the ongoing play so that he can take accurate offensive and defensive positions as per requirements.

Work out on the improvement of his muscular strength, power, speed, agility etc. These factors help to improve his skills and techniques. Improve upon technical skills of the hand-ball game along with their basic physical fitness to win victory as a team. As a team, strategy and tactics must be strong. It requires the integration of agility, power, muscular strength and flexibility to achieve skill performance.

The key to success in Hand Ball match is in the fundamental game -skills of the handball players. The fundamental hand-ball game skills represent a collection of specific actions that may be identified as techniques used to obtain maximum efficiency of play.

The sports performance in a handball game is affected by different qualities of players; these qualities are called variables; some of the variables of handball players that help them to be winners are physical fitness, their morphology, physiology, and psychology. These variables are also the determinants of their sports performance. Hence, the investigator has selected these performance determinants viz., physical fitness, morphological variables, psycho-physiological, and individual skills for the present investigation.
Handball has become a professional game nowadays. Yet, people don’t have any scientific information on its performance. Moreover, appropriate research-based information regarding the selection of talented Handball players is as a result, most of the coaches still use conservative approach towards physical conditioning and training strategies for Handball players. Thus, overall performance ability in Handball, today, at top class competitions is questionable and, in fact, needs a research-based support, which is the need of the vie diversely and not as it is played nowadays. The form of handball was different in the olden days. The well-known Greek poet, Homer had described a ball game in his well-known epic 'The Odyssey'. Homer writes ---

"They forthwith took hold of the gorgeous ball that had been skill fully created

The above description was found on a city wall of Athens. It was a relic of the historical times and as old as 600 B.C. The Romans accustomed play a Handball game that was known as ‘Harpaston.’ In the middle Ages, ball games were typically contend by the maids of honour and knights. The ball was typically embellished with ribbons and bells. the foundations of the sport were to pass the ball from one place to a different. The royal singers known as this as ‘Summer ball’World Health Organization known as them "Catch Ball Games,” this ball game was the forerunner of this outdoor game of Handball.

**Handball:**

Francois Rabelais (1494-1533) from France delineate a kind of Handball that they wont to play exploitation the palm of the Holger Nielsen. Holger Carl Nielson was a Danish gymnastic exercise supervisor within the French court; Holger Nielsen was a Danish fighter, shooter and contestant; he allowed to play a "Haanbold-Spiel" (Handball game) within the game of hand-ball; he additionally finalised the principles of the handball game in 1897. this sort of Indoor Handball or Olympic Handball relies on constant recent hand-ball of Holger Carl Nielson. Various handball games had been compete certain thousands of years, in varied nations like the Inuit of island, the traditional Greeks and Romans, and therefore the medieval French etc.; the fashionable team handball developed recently throughout 1800s once it became a preferred sport in European country and therefore the Nordic countries – as well as Kingdom of Denmark.
Countries that participated in Handball Matches’ History indicates that Handball accustomed be vie chiefly by Amateur players throughout the Nineteen Fifties, 1960s, Nineteen Seventies and early Eighties - significantly within the athletic contest. However, the elite players of the japanese axis and some Western countries bit by bit started collaborating during this game either sponsored by governments or by firms. Eastern European Countries that participated in Handball competitions land, Romania, Yugoslavia, European country and European country were frequently within the high 3 in most of the boys and women’s international competitions. Solely Kingdom of Sweden and West Germany showed any vital resistance to the Japanese Block.

**The skilled Era of competitive Handball:**

As the consequences of the conflict and also the collapse of the japanese axis alliance, several nations sweet-faced an economic recession; as a result several distinguished players migrated to the western countries. France, European nation and Deutschland dominated the sport. African and Asian countries started winning hand ball matches throughout Eighties to Nineteen Nineties. Players UN agency were beneath the contract of clubs or support bodies replaced the amateur standing of the game within the international level

**Modern Team Handball**

The ancient Greeks and Romans accustomed play a kind of handball; handball was conjointly vie by the American Indian in island and also the French in Europe throughout the center Ages. By the nineteenth century, handball was vie in numerous countries like Ukraine, Denmark, Germany, European country and Czech Republic. Team handball developed in geographical region by the tip of the 1800s. It had been particularly well-liked in Kingdom of Sweden, Norway, Scandinavian nation and Deutschland. Scandinavian nation is widely known because the birthplace of contemporary handball.

**World Women's Handball Championship**
The International Handball Federation (IHF) has been organising the planet Women’s Handball Championship since 1957. The planet handball women's championship has been chiefly dominated by European groups; A majority of the medalists are teams from northern and Japanese Europe. In 1990, Asian nation became the primary non-European host, followed by China in 2009 and Brazil in 2011.

**International Handball Federation**

it's conjointly vie professionally in several European countries together with Asia. In India, this game has become vital among different well-liked games. IHF considers Russia because the heritor of the records of land IHF considers {Germany|Federal Republic of Deutschland; Deutschland, FRG; European nation} because the heritor of the records of European country and West Germany. IHF considers geographical region because the heritor of the records of SFR Yugoslavia, metallic element Federal Republic of Yugoslavia, European country|European nation} and geographical region and Montenegro IHF considers Czech Republic because the heritor of the records of geographical region. Handball is vie in Olympic Games and has earned a formidable level of recognition in international arena of competitive sports. The media has been enjoying AN vast role concerning the institution of this game within the world-wide nations. Seven-a-side Olympic Handball hundred thirty countries. it's one amongst the key sports of the planet. It has been accorded Olympic standing for men in 1972 and for girls, in Montreal, in 1976. Skills of Handball. Team Handball has forever been thought of as a game of perception, timing, accuracy, and nimbleness together with a high level of fitness. However, the oft dynamic state of affairs within the game needs a player’s reserve state of athletic ability and, regardless of the high school to skilled ranks, demands bigger attention to player’s preparation.

**Recreational Value**
Handball is popular among the young men and women. Its recreational value and state of enjoyment have drawn the attention of both male and female players at the professional as well as collegiate levels. Handball, with due respect to its rules and regulations and playing set up, is popularly played in India. It is an exciting and challenging game. Indian athletes also represent national and international competitions in this game. Government of India spends amounts on this sport with a view to develop players for international platform of world sports.

**Place of Handball in World Sports & Olympics:**

Handball is contending in nearly each country of the planet. It's calculable that over fifteen million players area unit registered with Handball clubs. Several of the EU clubs area unit skilled and a few have players WHO area unit value many thousands of greenbacks. Skilled clubs in Asia (in Asian country, China and Japan) have become established and area unit thought of as terribly competitive on the international stage. Africa, Americas and Oceania chiefly comprise of amateur clubs however area unit terribly great.

**Handball in India**

Handball entered India in the early seventies; field version (11 a side) was played in its infant days in India. Soon it spread all over the country but states like Punjab, Haryana, Jammu-Kashmir, Andhra Pradesh and Maharashtra have edge over other states as far as standard and popularity of handball in India is concerned. Later SSCB team dominated the handball scene in the country.1979-80--- This game was included All India Inter-University in 1979-80 and The first All India Inter-university was held at Nagpur and Nagpur University won the gold medal, silver medal was won by Punjab and bronze by Osmania and Kurukshtra University got fourth place in men section. Nagpur, P.A.U.Ludhiana, and Bombay remained I, II, and III in women's section. It was
included as a National Level games also. 1982---The place of this game in Asiad was given in 1982 which was held in India at Delhi. 1990 ---- Indian handball team runners at games at New Delhi 1995, Dhaka ---- Indian handball team tuned out to be the winner of the second Youth Commonwealth Handball Championship. 1997---- Youth team got second place in 1997 commonwealth youth handball championship held at Edinburgh (UK). Punjab, Haryana, Jammu-Kashmir, Andhra Pradesh and Maharashtra these states have given many international handball players to India. Indian team has participated in about 55 international tournaments.

**Services and Handball in India**

Apart from participation of Indian team some Institutional Handball teams
i. Services,
ii. Punjab police,
iv. National handball academy
the above handball teams also participated in commonwealth club championship held at Malaysia, South Africa, and cochin.

**Punjab Police Handball Team**

Remained runners up in Malaysia. After inclusion of handball event in police arena, it has generated more competition in national championship

**Services team**

Was winner at Cochin. Presently services team is the senior national champion

**National Handball Academy**
Remained runners up in South Africa... At junior level NHA team won the championship. Milestone in the Indian handball history Inception of NHA (first of its kind) at Bilalai by SAIL under the collaboration of SAI and HFI in 1992. Shri. Hanumansingh (Olympian and Arjun Awardees) is its founder director. Very soon NHA started giving results and won Bronze and silver medal in commonwealth club championships at Cochin and South Africa respectively. Apart from winning junior national handball championship consecutively from 1994. with free loading and boarding, schooling, medical as well as equipped infrastructure facilities, NHA has attracted many upcoming talent of the country within age group of 16 years.

**Handball Included In School Games**
Now handball has been put in school games, national level; Team handball is the type of activity, which can well, be included in the programs of the every educational organization. At a time when school and recreation agencies at all level are booking to new and exiting activities Handball is played by both male and female;

**Size of ball and length of game played** exactly the same rules all over the world.

**Handball a recreational activity** Handball is a good off-season activity. It may be used as lead up to other team games.

**Handball Equipments** It is an inexpensive game requiring equipments -----only a ball and two purchased goals.

**Handball Court** It may be played indoor or outdoor on grass sport, mud court. The court markings are simple requiring only the goal area line (6 meter line) and free throw line (9 mts line).

**Technical Procedure in Handball**
Manipulation of the ball the movements of the players. In their most simple elementary form, these actions are the fundamental movements of ---running, jumping,
stopping, turning, throwing, catching and dribbling. In their advanced form, they are highly developed and refined movement pattern very specific to the game of handball.

Handball Skills

Thus, the beginner’s progress in skill is greatly dependent upon the natural abilities on which he draws (running, jumping, stopping etc.). The more advanced the level of skill sought, the more it is learning requires serious in-depth study and practice of specific handball techniques. This is because, the techniques of handball played at a high skill level are unique to this game ultimately the pace of game is so fast that all court movements must be executed with a minimum of thought.

Individual Talents of Handball

A number of attempts have been made to determine the physical demand of the players by increasing the work intensity and tactics. Handball game requires individual tactics, fitness and other basic requirements. The players are frequently required to work above the dynamic muscular strength of muscles for jumping, running and throwing.

Psycho-Physiological and Fitness Correlates in Handball Performance

Handball performance - Psychological consideration:

Sports psychology

Psychology is a behavioral science that has made its contribution in sports world; it has provided better sports performance achievement, ever improving accomplishment in the field of physical education and sports. Since the 1976 Olympic game, several European programmes for the psychological assessment and preparation of athlete have been publicized. Generally, more sports psychologist begins to apply their theories to the task of training in sports. The psychological aspects of sport are gaining attention in all levels of sport competitions. Professional sport has had an enormous influence on youth. Psychology can make a significant contribution to handball performance in two major areas:-
(1) Maximizing the athletes performance;
(2) personal growth and development.

**Psychological preparation of an Athlete** is not an instant process.

The psychological aspects of sport performance can be listed as follows;

i. motivation, ii. anxiety, iii. aspiration, iv. intelligence, 
v. creativity, vi. positive mental health, etc.

The training of the above aspects has improved the performance capacity of the athlete.

**Intelligence and Creativity Intelligence** is necessary for the player to understand the game, the strategies, and tactics.

**Creativity** is the key aspect in determining / analyzing the various moves, strategies of the game.

**Sound mental health** may help the athlete to recover from injuries and handle the adverse situation like mispass, misconversion etc. manipulate the opponents pressure, spectators, and coaches expectations.

**Performance Standards:**

Another way to use the criterion-referenced method for Evaluation is by setting performance standards. Performance standards are pre-established criteria that must be met to receive a particular grade. Since performance-based objectives are an important part of the curriculum-building process, it is only, fitting that we use some form of assessment to evaluate progress toward the successful attainment of these goals. To effectively use performance standards as a means to assign grades, the teacher must first be able to establish realistic, yet challenging, standards. To do so requires knowledge about the capabilities of the students. For example, requiring 12-year-old girls to run a mile in 8 minutes and 36 seconds to receive an A may be an unrealistic standard.
While this performance would rank at the 75th percentile (meaning that this performance is better than 75 percent of all girls age 12), it may be that these students have not had sufficient opportunity to develop the cardiovascular fitness and running skill necessary to achieve this goal. Likewise, if the teacher is fortunate to be teaching a class of students who meet the standard with relative ease, then perhaps the goal is not stringent enough. In this instance, proper standard setting is a more difficult task than the accompanying assessment and evaluation techniques.

The mental and psycho-social conditions required for successful performance at the sport. Different sports place different mental demands on performers. Competition sport means that performers are usually involved in a mental battle with their opponents in some way or another. It is therefore virtually impossible to compete without being assertive; some sports, like fighting games and contact invasion games, require the performer to use controlled aggression. These sports, together with endurance racing, may well involve performers having to cope with a degree of pain without letting it interfere with their strategic and technical skill.

Mental qualities

Performing well in any competitive sport requires concentration. Interactive team games require quick thinking, the development of strategic understanding between team members and the ability to anticipate what opponents are going to do. Team games also require some players to adopt leadership roles, while others must be prepared to conform to the leaders’ authority. We can think of the psychological level of analysis as being parallel with the physical level. Players have to be ‘fit mentally as well as physically’. There is an underlying complex interaction between mental and physical process necessary for exhibiting excellent movement production in Handball. In the present times, handball is played by both sexes in indoor and outdoor field throughout the world. Handball is highly competitive, struggling, requiring a high level of fitness, co-ordination, flexibility, agility and neuro-muscular co-ordination. It provides a wide opportunity for the development of strength, speed, endurance, agility, power, neuromuscular skill and co-ordinations of all parts of body by various actions involving
in it such as running, dodging, jumping, stretching and other movements which call for balance and pose.

For being a good Hand Ball player, it is important to look after the health and skill aspects of the game. The modern game of hand ball puts a great deal of emphasis on development of skills because of the fact that in this game different positions have to be taken by a player. They have to prepare a ball to shoot it in goal by dodging to opponent team. A player takes different positions during game as shooter, defender, offender, blockers etc. In the starting of game team members take their particular positions and according to situation, they change their sides. The defender also changes the position keeping in view the offender. Group defense and man-to-man defense takes place according to situation. Players also need constant concentration of the ongoing play so that corrective offensive and defensive positions can be adopted as per requirements. Consequently a player is expected to work on wide ranging programmes designed to improve his muscular strength, power, speed, agility etc. as the underlying factors of improved techniques. A high technical skill with the basic physical fitness base will often bring the success for a team even if its strategy and tactics are weak. The key to success in Hand Ball is in its good fundamental skill of handball player represent a collection of specific action that may be identified as techniques used to obtain maximum efficiency of play. Physical conditioning in handball is extremely important for top performance. It requires agility, power, muscular strength and flexibility all of which must be integrated to achieve skill performance.

To summarize, the performance out-put in handball is affected by different variables like physical fitness, morphology, physiology, and psychological variables. Thus, the selection of these performance variables/ determinants viz., physical fitness, morphological variables, psycho-physiological, and individual skills seem to be justified for the present investigation.

Its recreational value and state of enjoyment have drawn the attention of both male and female players at the professional as well as collegiate levels. Handball has always been considered as a game of perception, timing, accuracy, and agility along with a high level of fitness. However, the frequently changing situation in the game
requires a player’s reserve state of athletic ability and, irrespective of the high school to professional ranks, demands greater attention to player’s preparation.

However, notwithstanding the professionalization, which is advancing this sport, a lack of scientific information on its performance can be noticed. Moreover, appropriate research-based information regarding the selection of talented Handball players is neither readily accessible to the sport science community nor to the coaches. As a result, most of the coaches still use conservative approach towards physical conditioning and training strategies for Handball players. Thus, overall performance ability in Handball, today, at top class competition is questionable and, in fact, needs a research-based support, which is the need of the day.

Skill is used to denote expertise developed in the course of training and experience Thus, the sole thanks to learn a ability was through situation and knowledge. Test is the base of all types of measurement and evaluation The specific importance of tests can be explained as in the Scientific way as base to measurement, Achieving Purpose, Tests for Economy and Promotion of Scientific Approach (Kansal, 2008).

In any competition, the success of any team depends on contribution of each team member, for which selection of perfect player is needed. Skill tests or Fitness tests really helps lot to the selectors to select the skillful players

Performance standards are pre-established criteria that must be met to receive a particular grade. Since performance-based objectives are an important part of the curriculum-building process, it is only, fitting that we use some form of assessment to evaluate progress towards the successful attainment of these goals. To effectively use performance standards as a means to assign grades, the teacher must first be able to establish realistic, yet challenging, standards. To do so requires knowledge about the capabilities of the students. For example, requiring 12-year-old girls to run a mile in 8 minutes and 36 seconds to receive an A may be an unrealistic standard. While this performance would rank at the 75th percentile (meaning that this performance is better than 75 percent of all girls age 12), it may be that these students have not had sufficient opportunity to develop the cardiovascular fitness and running skill necessary to achieve this goal. Likewise, if the teacher is fortunate to be teaching a class of students who meet the standard with relative ease, then perhaps the goal is not stringent enough. In
this instance, proper standard setting is a more difficult task than the accompanying assessment and evaluation techniques.

**Handball Skills:**

It is referred to as techniques (e.g., passing, throwing, shooting, dribbling etc. in Handball game) to exhibit standard as well as qualitative performance.

**Passing:** It is an art of transferring the ball from one player to another.

**Throwing:** It is the act in which the force is applied to an object and projected in the space.

**Shooting:** It is the effort to achieve a goal by means of throwing.

**Dribbling:** To bounce and control the ball continuously with one hand while walking or running in a Handball court or it is the art of advancing the ball by a series of bounces.

**Status of handball performance**

Although completely different specific coaching strategies area unit imparted to the Handball players by economical Indian coaches with the support from the union Government, the important standing of performance-gain at national and international level is depressive. It’s conjointly become our common expertise that even if associate degree contestant receives scientific coaching similarly as employment, we tend to get defeat. The fundamental reason, perhaps, lies with the inconvenience of appropriate norms for choice of Indian Handball players in a very team. Within the gift, the choice is finished on the premise of some potency showed in Handball skills throughout game scenario. Moreover, only a few members of a variety committee and coaches think about the fitness level and morphology of the players. Thus, the performance exhibited by them in one game-situation might not be perpetually consistent and reliable principally in different scenario. This means that there should be customary criteria or
norms for the assessment, analysis associate degreeed choice of the players to make an economical Handball team to exhibit additional consistent and reliable performance.

The quality choice criteria area unit useful to the coaches and selector to pick the players as per their latest performance, the aim being improved team performance. The target criteria can guide to the coaches and selector to pick player meticulously for varied functions like completely different positions, methods and therefore eliminate the probabilities of error and weakened performance. It’s the rule of thumb for the coaches and selector for accuracy, judgment, and solidarity to be developed within the team. Thus, the quality choice criteria area unit would like for the choice of handball players to realize a high level performance. Astonishingly, no standardized check Battery is offered, at present, so as to pick appropriate players for exhibiting wonderful team-performance in Handball. Therefore, institution of correct norms is important for choice of players in a very team in Handball thus on exhibit systematically wonderful performance in any competition. Further, if progress is to be achieved in any sport, analysis of sportsperson may be a should. In India, till today, as there’s no standardized check Battery for assessing and evaluating gifted Handball players, the investigation during this direction has important relevancy.

The human physique differs in a thousand ways. It can be analyzed by studying the size, shape and form of an individual. For this purpose, a set of selected anthropometric measurements is taken on an individual. The intergroup comparisons are made to understand the physical peculiarities of a population. From such anthropometric body measurements, it is also possible to estimate the distribution of fat and development of bone muscle in the case of athletes and sportsmen where the physical fitness plays a vital role in the competitive performances. Examined the physique and body composition of Olympic athletes at Rome during 1960, and inferred that the athletes were both born and made.

The measurements of different body dimensions and ratios are of great relevance to the physical activity, especially in sports. The anthropometric assessment of physique include careful use of body landmarks specific positioning of the subject and use of useful instruments. The measurements that are taken on an individual are highly objective and highly reliable in the hand of a trained anthropometrics pointed out
that the biological or functional significance of many dimensions has not yet been adequately established.

The Competitive sports demand event specific physique and body composition to achieve the success.) concluded that top-level performance in a particular event demands a particular type of body size and shape, if other aspects are being similar. Showed high correlation between the body profile of an athlete and specific task (event) in which he/she excelled. Various other studies also suggest that different body sizes, shapes and proportions are beneficial in different physical activities. suggested that a nation with people whose general physique is limited to the characteristics of champions in certain events must concentrate their sports training on those specific events only. He also concluded that Japanese with small body-builds are best for gymnastics, long-distance running, boxing and weight lifting etc. whereas the Americans who are large and lean are best for basketball, female Handball, swimming, long jump, short and middle distance running) suggested that the athletes who wish to achieve success in sports at a high level should compare their physique with Olympic athletes. If the athlete's bodily structure is within the limit of the Olympians, he/she may achieve high performance subjected to the optimization of other factors. concluded that long distance runners are characterized by excessive leanness, relatively small body size and a deficiency of arm girth compared to chest size and leg length. The anthropometric and compositional study on cross-country runners revealed that runners are characterized by a relatively large calf and small biceps and abdominal girths. pointed out that athletes generally have physique characteristics unique to their specific sports. For example field event athletes have relatively large quantities of lean tissues and a high percentage of body fat whereas long distance runners have the least amount of lean tissue and fat mass. He also pointed out that football players are amongst the heaviest and leanest of all sports men.

In complex kinesiological activities such as sport games, successful performance is determined by a number of factors, first of all by anthropologic features of the players. Motor abilities are the main anthropologic component that is responsible for kinesiological performance. In modern elite sports based on the scientific approach to the training process, athletes have been ever more aligned according to their motor,
morphological and functional characteristics, thus psychological features becoming ever more important for achievement of top results. Kinesiologists are interested in motor abilities because some of them can to a considerable extent be modified via kinesiological operators, whereas Psychological characteristics, being mostly genetically determined, are more important in player selection. In sport games including handball, some playing positions that require appropriate anthropologic types of players consistent with specific functions and needs of the position have been distinguished. According to playing positions, players mainly differ in their morphological features. Studies tackling differences in other anthropologic and technical-tactical player properties according to playing position are lacking. Considering the role of motor and psychological characteristics in the player's performance in handball, and inadequate scientific knowledge of the respective variation according to particular playing positions. Differences in the basic motor abilities and psychological characteristics of elite female handball players according to playing positions is the aim of study.

Sport can be determined as an environment where development of physical activities takes place. Participation in athletic activities is a with an increasing anxiety. That leads to young or beginner players not performing according to their potentialities. This evidence has illustrated that playing different ball games requires different characteristics of physical fitness however other researchers have questioned that due to the limited number of variables used in the analysis and the selection of fitness tests being generally used for all sport events these differences may not exist in ball games. Moreover attempts have not been made to investigate the differences among different ball game sports to dig out the physical fitness variables that discriminate effectively among them.

suggested that the athletes who wish to achieve success in sports at a high level should compare their physique with Olympic athletes. If the athlete’s bodily structure is within the limit of the Olympians, he/she may achieve high performance subjected to the optimization of other factors. He development of a sport branch depends on the process of talent seeking and also on the scientifically based selection therefore selection of the players by their height is very important. Problem in selection correlates with the prediction of sportsmen accomplishments. Different sports disciplines have some
specific demands concerning body posture the level of development of motorics and functional abilities of the sportsmen. Selection, according to is by dictionary definition: a choice, in our case a choice of future female Handball players who could satisfy the basic requirements of female Handball, as far as anthropometric features are concerned. Criteria of selection in specific sport branches are different; one of the most important is physical posture especially the process of determining the final height and body proportions. The initial level of sport practice, selection plays a crucial role. These sports demands sportmen with accelerating height, while other sports (gymnastics) demand sportmen with impeded height.

The best way of developing the skill of an individual in a competitive situation is working. In the game of handball we find several physical challenges. We may find two players having same skill but their performances can be different due to their physical and mental response.

Individual can experience his own conditions at a time of poor performance. That time, he is uptight and anxious. The nature of anxiety is shown by the feeling of apprehension and uncertainty and the experiencing of physical symptoms like butterflies in the stomach, sweaty palms and a thumping heart. Than any thing else, during the competition individual feel these anxiety symptoms. Tendency for individuals to remain anxious in sport has made ready researchers to attempt to identify the sources of anxiety and to know how different individuals perceive them.

Anxiety experienced during competition, known as competitive anxiety, may be defined as the feeling of apprehension an individual may experience in response to perceived threats during competition (Martens, 1977). Clearly there are situations in sport where athletes was doubt their own ability to put across a desired impression either because of their own perceived lack of ability or due to external factors. Example a skilled athlete who feels he needs to win to demonstrate his ability may still lose to a better competitor or because of factors beyond his control such as illness or injury. These situations the inability to convey the desired impression may be perceived as a threat to athletes social-identity which may result in feelings of anxiety. Although it is not unknown for highly competitive athletes to experience low level of precompetitive anxiety, any first hand observation of organized youth sports would confirm that
many highly competitive individuals are prone to suffering debilitating state anxiety immediately before competition.

The problem of has been considered important in all areas of human activity including sports. Nearly every concern of human Endeavour is thought to be affected somehow by number of theories exist concerning the effect of anxiety on performance. Denying the interactive effect of anxiety on the performance of certain specific tasks. The all theories seem to agree that maximum performance is reduced by too much anxiety (Anxiety is team sports. In an individual sports success of failure lies solely with the individual participants. Where as in team games error go unnoticed because of the general activity of the contest and more over success and failure are commonly shared considering.

Inter-relation between the physique and performance has led to more common examination of the physical requirements necessary to achieve top performance. The main objectives of the sport and physical educationists working in this field in the determination of the optimal indices of the physique for the particular sport disciplines and event. as well as the presentation of morphological differentiations occurring among them. Hence, the recant researchers are interested in finding the relationship and prediction of selected anthropometric variable with long distance runner performance of the national, all India University and state level athletes. Size, body composition etc. had shown that those who became the best in the world in 1960, Olympic, had definite body characteristics that were clearly specific for the different events in which they competed. Discipline is required to develop the necessary top Olympic, International and national athletes have been subject of great interest for many research workers.

The first pre-requisite for success in any activity depends on high motivation. Therefore, while preparing the athletes, it is the important first of all to form and develop in his striving constability induce in him an urge to systematically useful results. Desire for around harmonious development of personality through preparation for creative work and defence, the desire to make one’s contribution to the progress of the sports and to glorify one’s collective and countering by sporting achievement.

Motivation is a general process which indicates the people participate. when competing to struggle, An understanding of achievement motivation is help full in
understanding kinds in general as well as individually in terms of what they do, how was they do and how long they continue in sports once one comes to know as to that works as a “driving force” it becomes easier to guide the athletes in to achieving excellence. When the aspiration for achievement becomes a foremost concern for the person, it is believed in restless driving energy expected at achieving excellence, getting ahead, betterment of past records, defeating competitors, doing things better, faster, more efficiently and findings unique solution to difficult problems.

From the above cited literature and investigation, it composition among international and Olympic female gymnasts, swimming, sprinters and track sprinters. The present investigation has been conducted with an aim to find out significant difference in age physique, body size body composition and somatotype variables among elite female Indian gymnasts, swimming sprinters.

In recent year the determination of the fat percentage of body has become widely used and recommended as one of indicators of fitness by monitoring fat percentage and body mass regularly. There are many aspects of a men can learn about his fitness and any changes in fitness as progresses that can not be cultured the most significant element is the monitoring of body fat percent was find out while weight is factor in determining health and fitness, consumers want to know how much their weight is body fat. There is some procedure or methods by which we can know about the fat % in our body. Like hydro densitometry, water displacement method, ultra sound technique, bioelectric impedance method, height-weight chart. Skin fold caliper and girth method etc.

To some extent of most of the method prove to be fruitful in respect to reliability but some prove to be fatal with respect to money and time. Skin fold caliper and girth method can analyze the fat percentage in our body effectively in aspects.

According to research finding we found skin fold caliper and girth measurement were the most reliable process after under water weighing for measuring the fat percentage in our body. Out of these two method girth measurement are easily to use, inexpensive and easily accessible and time saving process. But it is also a fact that long distance runner body structures various from place to place and various competitions, high level and low level. So a new equation for Indian athletes is required.
Spielberger and his colleagues drew attention to the distinction between Trait Anxiety and State Anxiety. State Anxiety is believed to be a changing emotional state, which is in the autonomous nervous system. On the other hand, although Trait & State Anxiety are considered different, these are inter-related, since it is believed that individuals with greater trait anxiety respond to threatening situations with more intense state anxiety. Man is always striving for perfection in every area of knowledge and practice. Human being is a unique product to nature’s creations and evolutions. It is no doubt, on account of highly developed muscular and nervous system, which enables him to think, express and search whatever he wants to do. In the modern life, the scientific development, technological advancement and research findings in every part of life demands fitness to overcome all the behaviors of life.

A happy child is a pride of nation, children are the world greatest resources let us have a great millennium ahead with reference to the investment of child’s developments which would be an investment of a strong and developing nation like our country India (Johnston, 1980).

The rational of a fitness need has been expressed in numerous ways to the public in the past few years. Although fitness must be planned longitudinally for optimum benefits. As Dr. Roy Shepherd a prominent Canadian researcher in physical activity has stated “Physical activity is a learnt behaviour” and the earlier the habit is acquired the most likely it is to persist into adult life”.

Underlying the objectives of the fitness initiative is a belief that physical fitness is a very personal matter and is ultimately the responsibility of the individual. Each person in accepting or rejecting this responsibility must realize the implications of the choice on the lives of others in our families in our communities and in our society. The 1920's were particularly significant for the field of testing. During this era, however new statistical techniques became available and more scientifically constructed tests were developed. Pioneer work in the field of scientific test construction was done by C.H. McCloy of the University of Iowa, David. K. Brace of Texas developed his motor ability test. Frederic Cozens devised a test of general athletic ability for college men. These early tests have served as model for modern test construction.
With the help of football one can reach near to paradise. Religious aspects come afterward therefore our young generation must strong enough. You will perceive the mighty genius and the mighty strength of better with a little of strong blood in you. You will understand the Upanishads better and the glory of Atma. When your body stands form upon your feet. What I want is muscles of iron and nerves of steel inside which develops a mind of the same material as that of which is the thunder bolt made (Vivekananada, 1986).

The very word “Fitness” implies suitability. If a person is fit he must be fit for something. A Totally fit person would be free from disease and organic impairment. He would have enough endurance and stamina to do days work without undue fatigue, participate in wholesome and worthwhile recreation and meet emergencies without in ordinate physical or emotional trauma, such a person would possess not only adequate strength and skill to perform daily tasks efficiently but also the test and vitality to enjoy living and participate in vigorous a activities appropriate to his age and interest (Froast, 1975).

The physical fitness status of National population varies between National due to such influences as age, sex, heredity, ethnic, cultural and economic patterns and the physical environment. Leaders in physical education around the world have shown increased relation in earlier period regarding the specific level of physical fitness of their nations populations. This concern is reflected by the development and administration of fitness tests in many different countries.

To develop and maintain the physical fitness requires vigorous efforts by those who in real sense are physically strong and seem in their appearance good and also acquired the best health which is requisite for blissful life. The possession of optimal strength muscle tone and endurance not only for emergencies but for the everyday living can be the key to dynamic health (Barrow, et al., 1979).

The measurements and assessments about the fitness of the body’s status of youth in different countries provide information with which one can make an indirect comparison between the levels of effectiveness of physical education programmers with regard to achieving physical education objectives. By measuring, weighing and evaluating the physical fitness levels and athletic abilities of their students. Physical
education teacher can establish growth curves and set fitness and athletic ability standards. Such data can be used to make comparison between programmers of physical education and between populations of youth.

Ever since the U.S.A. experienced that a large number of its citizens were not it enough to be recruited in their armed forces during World War II, there has been an ever growing interest in adopting programmers to promote physical fitness especially in school going children. One attempt to identify difference in physical fitness levels between National populations of youth was made in 1954 by Kraus and Hirschland in which the result of the Kraus-waver test of muscular fitness for American children and for European children were compared. Kraus and Hirschland suggested that the poor American showing could be explained by the high degree of mechanization that excised in American society and the consequent comparative lack of Physical activity in the daily lives of youths. The study of Kraus and Hirschland provided the stimulation for a national conference in 1965 to consider the fitness of American youth (Hans et. al., 2000).

This is such an incessant quality of Physical fitness which leads one’s life prosperous until death. It is related to the ability to meet the demands of the environment specifically to preserve to with stand stress to resist fatigue and to possess the energy for an abundant life physical fitness is minimal in the seriously ill and is maximal in the highly conditioned person, while energy demands of daily task vary for individuals. Some position between these minimal and maximal poles is satisfactory for most people. Since the individual is totally non divisible into discrete parts physical fitness affects all phases of human existence. It is vital for the whole person to maintain neuromuscular, cardiovascular and other organic systems by improvement of Physical fitness through exercise. This chapter reviews motor, fitness, and sport skill assessment practices for students with physical fitness. Like Jorge in the opening scenario. The chapter begins with specific strategies that will help children with physical fitness understand what to do and perform at their best. This is followed a review of assessment tools that might be used with children with physical fitness is also dependent upon organic fitness as well skill, both of which can be acquired only through a gradual process of training. A certain minimum level of fitness is needed for everyday.
But over and above the minimum level the requirement of additional fitness depends upon the nature of work that the person may have to do (Robert, 1998).

It is learn that “Physical fitness” factor was totally understood in a different way by the people and by the different direction. They said that to have a better “off spring” to have healthy citizens parents must be physically fit. So they encouraged the people to keep themselves physically fit, for which they were given more facilities. Several royal rules were made flexed. In order to popularize physical activities once a year, they started to conduct sports fairs, where several types of competitions were organized and the winners used to be honored. This gradually gave birth to sports. These sports used to be of differed type, where one had to exhibit ones power and strength on one another (Hans et. al., 2000)

The World Health Organization has set a target that every person in the World should become health conscious by 2000 AD and it is a right step in the attainment of health for all. The International Olympic Committee has signed an agreement with WHO for furthering the cause of health for all and sports for all by 2000 AD. The agreement is clearly directed towards attaining total fitness of all individuals by 2000AD. To attain this objective the citizens of the nation are to be made health and fitness conscious and for this purpose scientific programs should be made all ages (AAHPERD,1984).

Definition of physical fitness has been presented in most of the literature in various way. A Physical may define it as the absence of disease. Some athletes may rate fitness according to the amount of musculature developed. Other individuals apprehend the fitness as the potentiality to act in various games and sports related to few sports skills. The authorized council of the physical fitness and sports had stated that it is kind of measures of the fitness in physical and sport which increase the strength of stamina of the body, and flexibility, perhaps the most comprehensive definition has been given by the American Medical Association, which defines fitness in sports and physical activity as the whole common stamina to respond and adopt favorably for maximum results and their efforts. In day to day life for effectively and safe working without getting exhausted and having maximum energy for various recreational activities and leisure which comprise personal physical fitness while they get in to ordinary and at the same time they meet with unusual demands that arise, if any.
Fitness in Physical and sport could be divided into both categories which are as follows: a) fitness related to health, b) fitness related to motor skill.

Most authorities agree that from a health point of view total physical fitness involves four basic components that are separate but interrelated cardiovascular endurance, muscular flexibility and endurance, as well as body composition and muscular strength. To improve the overall fitness level an individual has to participate in specific program to improve each of the four basic components, nevertheless, after the initial fitness boom swept across the country in the 1970’s it became clear that just improving the four components of physical fitness alone would ensure better health and make it decrease the possibility of any type of diseases. Physical fitness can mean thing. To a physician, physical fitness may simple mean the absence of disease. To a weight lifter, it may be synonymous with large bulging muscles. To a health or physical educator, physical fitness may mean the ability to perform a specific number of calisthenics activities or in specific duration to walk at least one mile or run for one mile. To a health fitness professional, physical fitness means being able to acquire and maintain specific health standards. When people are asked to define or to describe the term fitness, their most common replies deal only with the physical part of fitness. Two other parts of fitness that are often overlooked are mental emotional fitness and social fitness. Total fitness is said to be achieved when people possess all there parts of fitness mental emotional social and physical mental emotional fitness is a combination of many qualities. Two of these qualities are the ability to control emotions and the ability to handle stress. A positive self-concept and the ability to feel and to show love and concern for others are other qualities of mental emotional fitness. Social fitness is the ability to get along with people in many kinds of situation. Behaving in ways that are socially acceptable are signs of social fitness. Physical fitness is achieved when people are able in order to carry out their daily routine with enthusiasm, cautiousness and except unwanted fatigue (Powers, 1999).

For taking part in various leisure activities and to get the stresses that is the part and parcel of many emergency conditions for physically fit people. It is one of the richest possession of physical fitness the one who wants to gain it has to be obtained through a daily physical exercise as well as through its daily practice those who adopts this
physical fitness, lean to get better felling and feels and also experience good health which gives the genuine quality to life. It is a requisite for physical fitness that enable strain and stress that may occurs due to different sporting activities and games that may prove fruitful for prevention of sports injuries in the long run and is an inseparable part of sports performance and achievement. The quality of an individual sportsman’s the level of fitness; the greater is the ability of a person to attain higher level of performance (Camaione, 1993).

“A Fit nation is an asset and weal nation a liability” Fitness means a satisfactory adjustment to one’s environment. Physical education is a tremendously important issue in modern life, worthy of our serious attention. People are more cautious and alter related to vast advantages of fitness and how to gain it than earlier. Their present information regarding physical fitness is been earned. The benefit of physical fitness were neither achieved how to get it clear nor defined. Various concept of fitness related to physical education and sport are discussed in large almost in every book in the field of physical education and sport still it has not got an idea to interpret it whole that concerns which extends the concepts of total fitness. The definition of total fitness has been presented as encompasses physical education in which the fitness of spiritual, social and moral as well as every other kind of considerable characteristic if any. Related to physical education and sport the fitness is studded with in a specific and broad opinion of entire fitness and exclusive as to give not any value. To overcome this barrier having so large definition, generally people are often described and looked physical education to meet their requirements of day to day life by using maximum amount of endurance and muscular strength.

As stated above related to the definition of physical education which is entirely incorrect and inadequate. Whose life are we talking about what is adequate. Recently most of the people are leading toward prosperous life just by watching various channels in television without doing any physical work which can give minimum amount of strain to their body. If the people have adequate stamina, endurance in their body and sufficient strength they are assumed to be physical fit was the overall judgment of general people who were physically inactive whose immediate requirement of professional and social life. Such kind of definition related to physical fitness and sport
creates many questions than it answers. It has been identified and recognized by professional in the field of physical education and sports related to characteristics in it's least form.

A news view of fitness is emerging, one rooted in a Socio-ecological view of health. Traditionally, fitness has been viewed nearly totally as individual issues with improved fitness seen as a matter of individual responsibility. When people are unfit or less fit than one might like them to be, then they get the blame, to the point where their character or fortitude is questioned. Clearly, the fitness movement of recent time has been predominantly a middle and upper socio-economic class phenomenon. The fact that children youth and adults of low socio-economic groups have not participated in this fitness renaissance is not a matter of choice nor can any blame be attached to members of these groups for not joining the fitness movement. If society is to become healthier and if a more fit citizenry can help to achieve that public health goal, then this new approach to understanding the social complexities of fitness and activity across the variety of groups within our society is necessary. We must view fitness as an individual and a social issue and we must attempt to restructure society so that more people have the opportunity to engage in activity, to pursue fitness and to remain healthy.

As far as fitness related to person’s other than physical education and sports the significance of physical fitness begins on a micro level in our cells since birth in our whole body. It takes excessive oxygen while performing various physical exercises, which is kind of fuel for the brain and heart. The heart starts to work faster pumping and provides fresh blood and oxygen to the body which help in cleaning the cells. When we take breath we omit carbon dioxide which is a waste product. As far as heart is concern which is the vital part of muscle of the body it can be developed strongly or weakened. By performing daily physical fitness exercises strengthens the heart muscle which supports to prevent various diseases related to heart. If the working of heart is good it signifies that the blood circulation throughout the heart is good and the circulatory system is functioning well. By performing daily physical fitness exercises it helps to strengthen heart and helps in prevention of strokes in heart and help to regulate blood or HDL (High-Density Lipoprotein).
Promotions of health and physical fitness have been the main objectives of physical education from ancient times’ world over. However, in the recent past neglect of one’s own health for various reasons has been evident, especially by a vast majority of adults. This was the direct result of wrong emphasis on winning by a few selected top athletes, at the sacrifices of the health and physical fitness of the population. The nation as a whole was shocked at the poor performance of our sportsmen in International competitions. Consequently, there seems to be better awareness and attitude, at least among many of the educated and at long last the fitness of the individual is being talked about. Some positive propaganda on physical fitness is being made through T.V. There are crowds to watch high performance sports, often sponsored by industries or private firms. How far these would promote physical fitness of the vast population in India is doubtful. The people should not become more spectators but involve themselves in physical activities which would make them fit and thus improves the quality of life.

In the curriculum of physical education Physical fitness plays a very important role. Among the various objectives of physical education such as Health, participation in games and sports, as cultural heritage, develop qualities conductive to social and sports and national unity, mental alertness, maturity and citizenship, the objective of physical fitness can be realized only through a program of physical education, whereas in the realization of other areas the school curriculum may also play its part. in other areas of physical education for achieving better success Physical fitness is essential in the curriculum.

Feeling fit and fine is all about fitness. Feeling fit certain to health and fine is about the mental state. Fitness has assumed even greater significance in the present times because the daily routine of most people is devoid of regular and effective exercise. Our forefathers did not need any gyms or health clubs because their lifestyle involved a lot of physical activity. Walking long distances was a matter of routine; many people used bicycles, which gave them enough exercise. Since there were no televisions, playing outdoor games were their idea of recreation. Women labored through the day on activities like cleaning grinding, cooking et al, since there were no fancy gadgets. Unpolluted air open spaces unadulterated and fresh food added to their fitness and good health. One the contrary the present generation has to make an extra
effort to get required physical exercise the lifestyle has necessitated it. Health is the most important topic to be discussed as healthy person can live long and contribute his her best to the society. The future of society depends upon the present students and hence healthy student means a healthy and better future of the society. Health never means merely absence of diseases, but it is the individuals to live most and serve best. Thus health is a holistic concept comprising of growth, development and proper functioning of each organ and system physical strength and vigor as well as its social mental emotional and moral health of the student. Laying the stress on the importance of health education and fitness Swami Vivekananda ji said, This ATMA not attainable by a weak man, If the students of a country are healthy the country is sure to make the apex mark in every field of life, Those countries had made progress in every field where the health and fitness of students were given preference. Thus if health is so important and precious, then awareness of health and fitness is most essential. Health education promotes good health habits, maintains the norms of good health, informs about health and hygiene, helps to locate physical deformities, provides knowledge for prevention and control of diseases, provides first aid training, develops sense of responsibility, advices and guides maximum development of students etc.

The most productive and fruitful time period in the life of human is student life. Whatever he she have gained in this period, is most beneficial for the society as well as the country. So Students health should be taken at par. As far as human body is concerned physical fitness plays an important role which makes one to perform to its extreme potential. The features of the body and muscle strength of the body condition for better and pleasant look fitness plays and major role. For performing vigorous work the body fitness must be able to perform it, which necessitates everyone to perform exercise for limbs, organs, etc. for sound and robust performance of the body and to derive all possible advantages it is necessary for everyone to perform their daily routine physical fitness exercises. These are not the hollow words or the fiction of an idealist philosopher’s brain they are pregnant with a stork reality a reality which the individuals and the nation must take cognizance of health and fitness are sine quo none of human life. Healthy and fit student is an asset while a weak student a liability is truism the former commands and the later demands. Realizing that human efficiency and
Productivity are very much dependents exclusively on students health and fitness. For efficient functioning of different motor mechanism of body one needs to perform Physical fitness exercise daily. A fit student possesses sufficient reserve of energy to meet emergencies. The physical fitness play an important role for balanced life of every student. Health and fitness is important as it improves the total efficiency of student, ensures better growth and development of body better functions of the body systems prevents health hazard, improves shape, size structure and weight of body etc. It prevents premature ageing and develops social qualities to lead a better life. Students are the vulnerable to stress, tension anxiety mental disorder and other health disorder in this competitive world. The useful energy which can be utilized for the development of a student gets spoiled to overcome these diseases. This useful energy can be saved and channelized for the benefit of student.

Various people have their different emblems of their physical fitness. Acceding to most of the doctors, the appropriate working of physiological system is physical fitness. while going through this term of the physical fitness is a simple and which has deeper meaning in it of the physical fitness of a common person means the ability of to do day to day life task without any tiredness or exertion and physical fitness of a common person means the capacity to do the routine work without any fatigue or exertion and after doing his work he has poor to do some more work and the recovery is quicker. The chapter concludes with information on how to translate assessment data into information that can be used to plan a program and create appropriate IFP goals. Physical fitness implies a relation between the task to be performed and the individual's capability to perform it. As noted throughout this chapter, working with children with physical fitness presents unique challenges. This is no more evident than when trying to assess a child’s motor, fitness, or sport skills. To get accurate assessment data, educators must make sure children with physical fitness understand what to do and try their best during testing a sufficient reserve of energy to meet the demands of emergencies in which a person is unexpectedly called upon to perform activities demanding unusual expenditure of strength, energy and adaptive ability under unfavorable environment.
It is very important thing which helps to leads happy and satisfactory life which get form Physical fitness. This fitness is also primary requisite for getting reduce from the danger which are related to lungs and heart diseases. Physically fit individuals tend to have lower resting blood pressure. Everyone want to maintenance it is one of the important tool which make one to do his/her daily routine and work easily therefore generally it is said that one’s wants to get rid from barriers of the life for life time is only possible by the physical fitness. Components for physical fitness is flexibility, Endurance, Strength, Speed, Power, physique, posture, nutrition and co-coordinative abilities. Fitness not involves not only physical but intellectual, emotional, social and spiritual aspects of an individual. Interaction and interdependence of these phases of man’s health or such that any deviation from normal in any aspect of these components of fitness will make a person inactive to get the requirement imposed on him by his work on way of life. Following are suggestions for areas to address when testing children with physical fitness.

**Effective Physical fitness:**

Physical fitness testing is popular in school settings, beginning in upper elementary grades and continuing through high school. Most physical fitness tests measure strength, flexibility, endurance, and body composition, and most tests have age-normed criteria for what constitutes physical fitness proficiency. For example, in the fitness gram physically fit 10-year-old boys should be able to do 50-sit-ups in one minute, and physically fit 10 year old girls should be able to do 35 sit ups in this same time period. Many students with physical fitness can participate in fitness testing without modifications to the assessment items. Some, however, require accommodations or alternative test items. Total health comprises of both mental and physical well-being, our lifestyle determines our fitness consciousness they will to deep fit or the ignorance which would ruins our health. The stress of the world today requires a striking balance between our physical fitness and our mental will being for ensuring success without physical harm or degeneration.

When using standardized tests to assess the physical fitness of children with physical fitness, examiners need to determine whether the children understand the
instructions to ensure that the results are a fair representations of their fitness levels. Many physical fitness test items involve multiple-step directions, which may pose a challenged for some students with physical fitness. For example, in the fitness gram pacer test, the student must understand where to start and stop as well as how to follow the cadence of the beeps to complete the test successfully. The curl-up test also requires students to understand how to slide their hands the appropriate distance across the testing strip while performing the curl-up motion and follow a recorded cadence at the same time. These multiple-step directions and multiple cues may cause confusion or be over stimulating for students with physical fitness. In addition, these students may become agitated by the noise and activity around them during fitness testing, particularly if many children are participating in the assessment.

Modifications can be made to physical fitness tests such as the fitness gram to allow for the successful participation of students with physical fitness general modifications might include testing in a quieter area or room for children who become over stimulated by the noise and activity, or providing a schedule, visual aids such as pictures or video, and multiple demonstrations of the test items to help students understand the directions.

The statistical estimates reveal that the main cause of death today is basically life style related. Majority of the deaths is caused by cardio vascular problems and the fact is that more than 75% of these could be prevented. Therefore to improve the quality of life and also to increase longevity one has to follow all the health rules and adopt a positive lifestyle programmed. It is recommended that each individual should regularly take part in fitness and wellness programmers for developing positive addictions and continue with them throughout so as to experience a new quality of life.

Obesity is one of the main causes which lead to cardio vascular problems among people. It is important to note that if a test has been modified. It may not be appropriate to compare the student’s results with the regular standards.

All of the input we receive comes through our seven senses before it goes to the brain where emotion and judgment are attached to that sensation. Many students with physical fitness have problems processing sensory information, which can create added stress. People with as have described sensory information as painful. For some people,
trying to process more than one mode of information at a time can also be overwhelming. Some students with the teacher is saying. (Dexter, 1981).

**Designing Fitness and Training Programs:**

In designing a program or writing an exercise prescription to improve fitness, physical educators must take several factors into consideration. These factors are the same regardless if the exercise program is being designed by a coach for athletes, a teacher for students or an exercise physiologist for a post stroke client. Pollock and Blair delineated several physiological and behavioral factors that must be taken into account if the sought after benefits improvement and maintenance of fitness or specific fitness components for example cardiovascular endurance are to be realized.

To attain desired physiological changes associated with fitness, individuals must exercise on a regular basis. Physical educators must consider the frequency, intensity and duration of exercise as well as the mode of exercise in planning exercise programs for individuals. Frequency refers to how often an individual should exercise, such as three to five times a week. Intensity reflects the degree of attempt should keep before by the individual, for example, 80%. Duration refers to the length of the activity, such as swimming for 40 minutes. These three factors are interrelated and can be manipulated to produce exercise programs appropriate to the individual and the outcomes desired. Mode refers to the type of activity such as running, swimming, or biking.

**Warm-Up, Training and Fitness:**

A major discussion concerns the use of some type of warm-up procedure before engaging in physical activity. The physical educator and coach should be familiar with the available evidence before determining whether or not to use the warm-up or how to use it most effectively.

Numerous research studies have demonstrated that to achieve peak physical performance the individual should warm up. Warm-ups have been found to increase speed, strength, muscular endurance and power. The research indicates that vigorous, long warm ups are better than less moderate ones. Related warm ups are preferable to unrelated ones because of the practice effect that also results. Attitudes toward warm up are also related to efficiency in performance. An individual with a positive attitude
toward warm up appears to benefit more from such an experience than one who has a negative attitude. It has been determined that combinations of intensity and duration contribute to the desired effect of a warm up. Insufficient warm up does not achieve the high level of muscle strength and temperature desired, and excessive warm up can lead to fatigue and thus decrease the performance level.

Warm ups have been sought to be significant to stop injury and muscle soreness. It appears that muscle injury can result when vigorous exercises are not preceded by a related warm up. An effective quick warm up in physical education, standing in line or touching others in the course of a game can be very distressing for some students with physical fitness. In an activity such as basketball, having an opponent in one’s space or bumping them can be extremely stressful or even painful.

**Jogging, Training and Fitness:**

In recent years jogging, which is basically a combination of walking and running has become popular as an aid to keeping physically fit. It has received wide approval from many groups because it is a sustained type of exercise that is noncompetitive. An individual does not have to possess any particular skill to jog, and the majority of joggers range in age from 18 to 70 years. Advocates of jogging think that men and women up to the age of 70 years can learn to jog at a good pace. It is extremely important for individuals to have a medical examination or a stress test or both and to discover the limits of heart endurance before beginning to jog. Jogging has been found beneficial to some heart attack victims to rebuild the endurance of their heart and lungs. Dr. Kenneth H. Copper, author of the much publicized book entitled Aerobics, has stated that exercises such as jogging force the body to become conditioned to an increased need for oxygen. When the body reaches the level of fitness that meets this need, the cardiopulmonary and oxygen transport systems become more efficient. Among other benefits, jogging also helps the healthy individual who wants to lose weight.

**Stress, Training and Fitness:**
Stress, according to Selye, is essentially the rate of all the wear and tear caused by life. Each person experiences some degree of stress during each moment of existence. Stress can be caused by an injury, but it can also be caused by a happy occasion. Stress can be good and it can also be bad for a person. The term stress is commonly used in two ways one, a stressful stimulus itself such as a death in the family and two the result of events such as the psychological or physiological condition that occurs in the body as a result of such a stimulus. Stressor is the term used to mean a stressful stimulus. Stress can have both positive and negative effects. A positive effect might result if an athlete is psyched up for a game and thus performs better. A negative effect might be the very high level of stress that results in depression.

A variety of stressors affect people today. Psychological stressors arouse emotions such as fear, anxiety anger and love. Physiological stressors are pollution, noise, heat and cold for example. Worrying about an examination is a stressor, and vigorous exercise and strenuous sports are stressors. All illnesses are stressors. Many stressors are environmental such as air pollution and crowding. Stressors have different effects on different people. Also, people vary in the amount of stress that is part of their life styles. Medically for example type A people are always in a hurry, competitive and aggressive. Type B people are relaxed and take more time to accomplish their tasks. Signs of stress may include insomnia, backaches, headaches, inability to cope, anxiety and irritability.

When a person encounters a stressor, the brain puts into action two interrelated physiological systems the autonomic nervous system and the endocrine system. The result is an increased blood pressure and heart rate and elevated levels of oxygen and glucose in the blood. These responses prepare us for fight or flight. Evidence is mounting that many chronic ailments that affect persons, especially those in middle age are directly related to stress. The hard driving, competitive corporation employee may be recognized as a likely candidate for a heart attack at any early age. Conditions such as ulcerative colitis asthma migraine headaches and ulcers are directly related to stress as are many psychosomatic disorders.

The important thing is that the body must be prepared to meet stress. The formula for enjoying life is learning how to make adjustments in a world that is
constantly changing and in which events do not always run smoothly. These adjustments can more readily be made by the person who understands the body and ways of meeting stress. It is thought that to some extent disorders involving nervous disturbances, high blood pressure and ulcers are caused by lack of understanding of adaptation. Physical activity has been found to be very helpful in controlling stress. It is believed that exercise burns up stress hormones. Exercise helps to release the tension that can accumulate when one is under stress. One the other hand sitting and inactivity inhibit natural expression. As a result hormone induced tension is alleviated by activity. Some psychiatrists have found that physical exercise performed on a regular basis produces psychological benefits such as relieving depression and anxiety. A Stress regulated and controlled life style is thought by some persons to provide a balance between work and play and rest and exercise.

Relaxation, Recreation, Training and Fitness:

Relaxation contributes to health and may actually be in the form of physical activity. Relaxation is essentially a mental phenomenon concerned with the reduction of tensions that could originate from muscular activity but that are more likely to result from pressures of contemporary living. A technique for achieving relaxation or nervous reeducation has been developed by Jacobson. It has two basic steps.

In the first step the individual learns to recognize muscle tension in subtle as well as in gross terms. Gross tension is easily identified. With fists tightly clenched, one holds the arms outstretched to the side at shoulder height for one minute. The individual observes the feeling of exertion and discomfort in the forearms and shoulders. The arms are dropped to the sides and the muscles of the arms and hands are relaxed completely. The effortless relaxation, which Jacobson calls the negative of exertion, can be noted. Subtle tension involving less muscle effort than that just illustrated is sometimes difficult to detect. It takes concentration and practice to learn to recognize minor tension in the trunk neck face throat and other body parts.

In the second step the individual learns to relax completely. First the large muscle group’s arms, legs, trunk and neck are relaxed. Then the fore head, eyes, face and even the throat have tension eased through a program of passive relaxation.
Carried out in the proper fashion, the program teaches the subject to relax the whole body to the point of negative exertion. The result is a release of tension an antidote to fatigue and also an inducement to sleep.

Leisure time activities such as games and sports, hobbies and avocations and intellectual and artistic endeavors such as painting and sculpturing are considered to be excellent means for eliminating boredom and tension. These recreational activities provide a means of relaxation. Long abused as simply childish diversion or amusement, recreation is currently being suggested as an antidote for some of the tensions each person experiences in daily life. (Pollock et. al.,1981).

Vestibular: The vestibular system includes the semicircular canals and the eolith organs of the inner ear. This system provides information about head and body position in space and orientation to horizontal and vertical planes of movement. Standing and balancing independently, riding a bike, walking a balance beam, balancing on an unstable surface such as send or grass, and turning upside down for a forward roll are all skills that require an effective vestibular system.

Deterrents to Fitness:

Several deterrents to a high state of fitness can be discussed. Some of the more important of these are life style, tobacco, alcohol and drugs.

Life Style and Fitness:

Once of the greatest deterrents to physical fitness is the general life style of our modern age. Many people are eating the wrong foods and drinking and smoking excessively. In many cases excessive affluence is detrimental to physical fitness in that affluence directly affects diet and promotes a sedentary life in which driving is favored over walking and watching television is given priority over physical exercise.

The results of our life style may be seen in increased coronary heart disease at younger ages. It is no longer unusual to see coronary patients in their mid-twenties or younger. Obesity has become a great problem and persons who are overweight tend to have a poor self-image are disinterested in physical activity and most importantly have a greater risk of heart disease and other malfunctions.
Positive changes in lifestyle can best occur through education. This education for fitness needs to start with young children to make them aware of their bodies and the value of physical fitness to their emotional and physical well-being. In addition, public communication through literature, television, and radio should endeavor to educate adults so that they may take positive steps in improving their physical fitness.

Proprioceptive. Input from muscle spindles and joint receptors tell the body where it is in space, in addition to sensing the direction and velocity of movement. As well as the effort needed to perform a task. The Proprioceptive system is in play when picking up a weight or ball, stepping off a low beam, or mirroring a position from a demonstration. This system is also important for all motor skills such as climbing, crawling, rolling, jumping, and manipulating objects.

In summary, the sensory systems must all be in good working order to be successful in the physical education setting. A child who struggles with processing information from any of the sensory systems will experience a detrimental effect on performance. In many people with physical fitness, multiple sensory systems are affected. Imagine trying to play basketball if you’re visual, auditory, and tactile systems were not processing correctly. The environment becomes a highly stressful, unpredictable space full of threat because of an inability to judge distance, filter auditory input, or prevent physical contact with others because of poor spatial orientation, poor proprioception, or motor planning.

Stress reduction strategies are important for getting the most out of any learning environment. To learn, a student needs to be in an optimal state of arousal. People with physical fitness are often either over-aroused or under aroused. Thus, the challenge is finding ways to support the nervous system so that an individual can be as close as possible to an optimal state of arousal for learning.

The first pre-requisite for success in any activity lies, as is well known is high motivation. Therefore, while preparing the athletes, it is the important first of all to form and develop in his striving constability induce in him an urge to systematically useful results. Desire for around harmonious development of personality through preparation for creative work and defence, the desire to make one’s contribution to the progress of the sports and to glorify one’s collective and countering by sporting achievement.
1.1 Statement of the Problem:

In order to find out whether there is a difference in actual match performance and skill test performance researcher had undertaken the research topic entitled “A Study of Skill Test & Actual Match Performance of Handball Players”.

1.2 Significance of the Study:

In team games, the performance of the team totally depends on the individual performance of each player. Therefore selection of the player plays an important role. Standardized test battery, developed by experts helps the selectors to select the players. With this battery one can check only the fitness level and skill talent of the players. The present study will be useful in the following ways:

- The present study will prove beneficial for the Selection Committee members for objective assessment and evaluation of the performance ability of Handball players so as to form a standard Handball team.
- This study will be helpful to Handball coaches and physical education teachers for assessing and evaluating their players and getting feedback for further improvements. This, in fact, will help for making necessary modifications in their coaching and teaching strategies in preparing Handball players.
- This study may provide an opportunity and encouragement to the sports talents in Handball, with a hope that their efficiency will be accurately judged by the developed test and norms.
- This study will provide standard norms in favour of selection, assessment, and evaluation of selected performance variables of junior Handball players in Maharashtra state. As a result, able players will get a chance to represent a standard Handball game and drawbacks of present system of selecting players can be avoided.
- To avoid dirty politics involving in selection of players, the development of such norms has profound importance.
- The norms will help to discriminate the players having excellent potential and talent.
- Fair selection system will be set up as a result of this study, so that top performance of Handball team can be expected as well.
1.3 Objectives of the Study:

Keeping in view the need, background and purpose of the study, Investigator has listed the following major objectives.

- To develop and standardize a rating scale.
- To find out the match performance of the players with the help of rating scale.
- To find out the skill performance of players with the help of standardized handball skill tests.
- To compare the skill and match performance (Rating scale) of handball players.
- To find out the relation among skill performance with match performance.

1.4 Delimitations

For this study following are the delimitations:

- The study is confined for the male junior level Handball players, aged between 15 to 19 years (i.e., under 19 years).
- SAs the subjects participating in this study belong to various districts in the Maharashtra factors such as diet, nutrition etc, may be different and will not be controlled.
- The study is confined to the state level handball players only.

1.5 Limitations:

- Since the test items were many, the researcher was not able to take all the measurements alone. He therefore took help from some qualified assistants, the researcher therefore considers it as a limitation of this study.
- Psychological variables and the related factors of the players, which might have been evolved during game situation, were not controlled

1.6 Hypothesis

On the basis of assumptions made and literature reviewed, the investigator has formulated the following hypotheses.
H₀: There is no significant relation among match performance and performance of skill tests of the players.

H₁: There is significant relation among match performance and performance of skill tests of the players.

1.7 Definitions and Explanation of Important Terms

Handball:

As its name indicates, Handball is a ball game that is played by using the hands. It is a team game, played on a court “indoors” or “outdoors.” It is a very fast game with comparatively few restrictions and players are constantly running, passing, and shooting in purposeful aggressive manner.

- **Test Battery**: It is a specific tool or composition of some tools, procedure or technique used to elicit an overall response from the student in order to gain information to be used as basis for appraisal of the quality of elements such as fitness, skill, knowledge, values etc.

- **Match Performance**: It is the execution of skills and result of sports actions or complex sequence of actions as measured or evaluated according to socially determined and agreed norms.

- **Rating Scale**: Rating Scale is a tool used for evaluation or rating the things (e.g. Performance, Skill, Quality and Progress etc).