



## Physical Education

### Assignment

## Test & Measurement in Sports

- 1 Motor fitness test-50 m standing start, 600 m Run/walk, sit & Reach, Partial curl up, Pushups (Boys), modified pushups (Girls), standing Broad Jump, Agility-4 × 10 m shuttle Run
2. General Motor Fitness-Barrow three item general motor ability (Standing Broad Jump, Zig Zag, and Medicine Ball Put- for Boys: 03 Kg & for Girls: 01 Kg)
3. Measurement of Cardio Vascular Fitness - Harvard Step Test/Rockport Test

### 1. Briefly describe the process and scoring of the 50 m standing start and 600 m walk/Run

#### **50 m standing start.**

Procedure: The test involves running a single maximum sprint over 50 meters, with the time recorded, start from a stationary standing position (hands cannot touch the ground) with one foot in front of the other. The front foot must be behind the starting line. Once the subject is ready, the starter give the instructions “set” then “go” participant should be encouraged to not slow down before crossing the finish line.

Scoring: Time take to cover 50 m distance is expressed in seconds.

#### **600 m walk/Run**

Procedure: 600 m walk and Run can be organized on track subject runs a distance of 600 m. The subject takes a standing start from the starting line. The subject may walk in between. However, the objective is to cover the distance in the shortest time when he crosses the finish line he is informed of his time.

## 2. Standing broad Jump tests Jump tests the strength of which part of the body. Explain the procedure of the test.

**The explosive strength of the legs is tested by standing broad jump.**

Procedure: A take off line is marked on the ground. Subject stand just behind the take off line with the feet several inches apart. The subject swings the arms and bends the knees to take a jump in the long jump pit. Three trials are given to the subject. The distance is measured from the take off line to the heel or other part of body that touches the ground nearest to the take off line. All jumps are measured and the best one is recorded.

## 3. Briefly describe the process and scoring of the 4 × 10 m Shuttle Run?

### **Shuttle Run**

Purpose: To measure speed and agility

Procedure: Two parallel lines are marked 10 meters apart wooden blocks 2 × 4 inches are kept on one side of marked line. The student stands opposite to the line, where wooden block are placed. On start the student runs towards wooden blocks and pick one of them. Then places the block on the line from where he started. The student continues to run and similar lift other blocks and place at starting line.

Scoring: The score is each lap time for completes trial. The better of two trials is taken as final score.

## 4. Enlist of motor fitness test and explain the process of any two tests.

### **Motor fitness test**

1. 50 m standing start 2. 600 m Run/walk 3. Sit and Reach test 4. Partial Curl up 5. Push ups (Boys) 6. Modified push ups (Girls) 7. Standing Broad Jump 8. Agility - 4 × 10 m shuttle Run 1. Sit and Reach test

Procedure: This test involves sitting on the floor with legs stretched out straight ahead. Shoes should be removed. The soles of the feet are placed flat against the box. Both knees should be locked and pressed flat to the floor The tester may assist by holding them down with the palms facing downwards, and the hands on top of each other or side by side, The subject reaches forward along the measuring line as far as possible. Ensure that the hands remain at the same level not one reaching further forward than the other. After some practice reaches, the subject reaches same level not one reaching further forward than the other. After some practice reaches, the subject reaches out and holds that position for at one

two seconds while the distance is recorded. Scoring: The score is recorded to the nearest centimeter or half inch as the distance reached by the hand.

## 2. **Partial Cur/up:**

Procedure: The starting position is lying on the back with the knees flexed and feet 12 inches from the buttocks. The feet cannot be held or rest against on object. The arms are extended and are rested on the thighs. The head is in a neutral position. The subject curls up with a slow controlled movement, until the students shoulders come off the mat two inches, then back down again one complete curl up is completed every three seconds and are continued until exhaustion. There is pause in the up or down position, the curl - ups should be continuous with the abdominal muscles engaged through out.

Scoring: Record the total number of curl-ups, only, correctly performed curl ups should be counted.

## 5. Explain General Motor Fitness Test.

**General Motor Fitness Test** : Barrow's Three-items General Motor Ability Test Motor abilities play a very vital role in achieving apex position in games and sports. Motor fitness involves speed, agility, power, coordination, strength and so on. These components of fitness are necessary for competing at top levels. For measuring general motor fitness, the three-item test battery of Barrow is used. In this test, battery of three items such as standing broad jump, zig-zag run and medicine ball put are used to measure the general motor ability of an individual. The details of administration of these tests are described below:

### 1. **Standing Broad Jump** (for measuring leg strength)

Equipment and material : A mat of 5 × 12 feet and a measuring taps, if the mat is unmarked. Procedure : A take-off line is marked on the ground. Subject stands just behind the take-off line with the feet several inches apart. The subject swings the arms and bends the knees to take a jump in the long jump pit. Three trials are given to the subject. The distance is measured from the take-off line to the heel or other part of body that touches the ground nearest to the take-off line. All jumps are measured and the best one is recorded.

### 2. **Zig-Zag Run** (for measuring agility and speed)

Equipment and material : Stopwatch, five obstacles and space enough to accommodate the 16 × 10 feet course.

Procedure : The subject begins from a standing start on the command to run. The subject runs the prescribed pattern stated to him as quickly as he can without gasping. Three complete circuits are run. The stopwatch is started when the command to run is given and stopped immediately when the subject crosses the finish line. The time is recorded to the nearest tenth of a second. Before running the zig and zag run, the subject should warm up properly. The subject should wear proper fitting shoes with good

traction to avoid blisters and slipping. Demonstration of the pattern of the course should be given by the administrator before the beginning of the run.

### 3. **Medicine Ball Put** (for measuring arm and shoulder strength)

Equipment and material : A medicine ball and measuring taps.

Procedure : The subject stands between two restraining lines which are 16 feet apart. In case of girls, a medicine ball of 1 kg is provided, whereas in case of boys a medicine ball of 3 kg is provided to be put. After that he/she attempts to put the medicine ball out as far as possible without crossing the restraining line. He/she should hold the medicine ball at the junction of the neck and shoulder then the ball should be put straight down the course. Three trials are given to him/her. The best of three trials is recorded. The distance is computed to the nearest foot. A put in which the subject commits a foul is not scored. However, if all the trials are fouls, subject he/ she should try until he/she make a fair put.