

CBSE Test Paper 05
CH- 06 Test and Measurement in Sports

1. What is the usefulness of back scratch test for senior citizens?
2. Which test would you suggest for your grandmother to test lower body flexibility?
3. What do you mean by Harvard Step test?
4. Calculate the Physical Fitness Index using short formula for a 12 year old boy having completed Harvard Step Test for a duration of 3 minutes and a pulse rate of 54 beats for 1 to 1.5 minutes.
5. Which test would you suggest your grand mother for measuring lower body flexibility?
6. While taking medicine by Rony's grandfather, a pill was dropped which slipped under the bed. The old man was not able to bend down. Seeing this, Rony quickly picked up the pill from under the bed and also poured a glass of water to his grandpa to swallow the pill.
 - i. What values are shown by Rony?
 - ii. Which test can be suggested to measure the fitness of grandpa?
 - iii. Who prepared the physical fitness tests for the elderly people?
7. What is the most famous test for the measurement of flexibility of young athletes?
8. Describe the purpose and procedure of six minute walk test for aerobic endurance.
9. Explain one method of cardio vascular fitness test.
10. Explain in detail the AAHPER Test.

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Answer

1. The usefulness of the back scratch test for senior citizens is to assess the upper body flexibility, particularly the shoulder. This is important in performing various items of daily routine like combing one's hair, putting on garments requiring to be worn from over the head, reaching for a seat belt etc.
2. I would suggest Chair Sit and Reach Test for my grandmother to test lower body flexibility.
3. The test for measuring cardiovascular endurance of human beings by using easily available and inexpensive equipment. It was started by Brouha in 1943.
4. Physical Fitness Index (short term formula) = $(100 \times \text{test duration in seconds})$ divided by $(5.5 \times \text{pulse count between 1 and 1.5 minutes})$

$$\text{Formula} = \frac{100 \times 180}{5.5 \times 54}$$

$$= 100 \times 180 / 5.5 \times 54 = 18000 / 297 = 60.60$$

5. The test I would suggest grand mother for measuring upper body flexibility is Chair sit and reach test
6.
 - i. The values shown by Ronyare helpful, kindness. care and respect for the elderly.
 - ii. The test that can be suggested is Chair Sit and Reach Test as it measures- lower body flexibility.
 - iii. The tests for the elderly were prepared by Rikli and Jones. That is why these tests are called Rikli and Jones Senior Citizen Fitness Test.
7. Sit and reach test is the most famous test for the measurement of flexibility. It specially measures the flexibility of the lower back and hamstring muscles.
Equipment: A testing box of 21 inches, scale attached to its top.
Procedure: After removing shoes a person sit with straight knees by placing feet against the testing box. The soles of the feet must touch the box. Now place your

hands one other and try to reach forward along the measuring scale as far as possible and hold it there for 1-2 seconds. Then the distance is recorded.

Scoring: The subject is given three trials. The highest score is recorded to the nearest centimeter as the distance reached by the hands.

8. Purpose This test measures aerobic fitness and endurance of senior citizens.

Procedure The walking course is laid out in a 50 yard (45. 72 mtr.) rectangular area (dimension 45×5 yards) with cones placed at regular intervals to indicate distance walked. The aim of this test is to walk as quickly as possible for six minutes to cover as much ground as possible. Subjects are to set their own pace (a preliminary trial is useful to practice pacing and are able to stop for a rest if they desire.

9. Harvard step test-This test requires the athlete to step up and down off a gym bench for 5 minutes at a rate 30 steps/minute which measures the Aerobic fitness test. The distance to be covered is 1 mile on normal track. After the workout, timing, heart rate, has to be measured. The athlete steps up and down onto a standard gym bench once every two seconds for five minutes (150 steps), The assistant stops the test after 5 minutes

The assistant measures the athlete's heart rate (bpm) one minute after finishing the test - Pulse1 The assistant measures the athlete's heart rate (bpm) two minutes after finishing the test - Pulse2 The assistant measures the athlete's heart rate (bpm) three minutes after finishing the test - Pulse3 b. Rock fort one mile test- Main objective to check the development of VO₂ max.

10. AAPHER PHYSICAL FITNESS TEST : This test consists of the following six items :

- a. Pull ups : In case of girls, the pull-ups are to be started from a flexed arm hang. This test item judges the arm and shoulder girdle strength.
- b. Flexed Leg sit ups : This test is meant to judge the efficiency of abdominal and hip flexor muscles.
- c. Shuttle Run : This test item is meant for judging the speed and change of direction.
- d. Standing Long Jump : For judging the explosive power of leg muscles.
- e. 50 yard Dash or Sprint : For judging speed.
- f. 600 yard Run : For judging endurance.

Administration of Tests : these tests can be conducted in a gymnasium or out-doors. The only apparatus required in these tests is a horizontal bar having a diameter of approximately 1½ inches for pull-ups and flexed arm hang for girls. However, arrangement has to be made for the timing and recording of all scores with the help of timers and recorders.

Item No.1—Pull ups : This item has to be done from a hanging position on the bar by using the overhead grasp (with palms facing outwards). The arms and legs of a subject should be fully extended. From hanging position, the subject should raise his body with his arms until his chin is placed over the bar. Then, he should lower his body to a full hanging position. In doing so, the knees should not be bent and the pull should not be jerky or snap pull. (The number of completed pull-ups is the score of the subject.)

Item No. 1 (Girls)—Flexed-arms hung: In this test item for girls, the subject is required to hang from the bar with flexed arms and overhead grasp. She should raise her body to a position where the chin is above the bar, the elbows are flexed and the chest is close to the bar. The stopwatch is started as soon as a subject assumes such a hanging position and is stopped when the subject's chin falls below the level of the bar. (The time recorded in seconds for which a subject holds the hang position is her score)

Item No. 2—Sit-ups : For this test meant for boys and girls, the subject should lie on his or her back with knees flexed and kept not more than 12 inches from the buttocks. The hands of the subject should be placed at the back of the neck, fingers clasped and elbows touching the mat. From this position, the subject should raise his or her head and elbows forward upwards till the elbows touch the knees. This constitutes one sit-up. (The number of correctly performed sit ups in 60 seconds from the start of the first sit-up is the score of a subject).

Item No. 3—Shuttle Run : For this test item, two parallel lines are drawn at a distance of 30 feet from each other and two blocks of wood are placed behind one of the lines. The subject has to stand behind the other line and on the signal —Ready||, —Go|| should run to pick up one block, run back to the starting line and place the block behind the line. He should again turn back to pick up the second block and bring it also behind the starting line. Two such trials are given. (The better time of the two

trials to the nearest 10th of a second is the score of the subject).

Item No. 4—Standing Long Jump : In this test, a subject is required to stand behind a take-off line, with feet apart. He takes a jump forward by extending his bent knees and swinging the arms forward. The best jump recorded, out of the three trials given, is the score of the subject. (The jump should be recorded in feet and inches).

Item No. 5—50 Yard Dash : Two lines are drawn at a distance of 50 yards from each other. The subject is made to run from the start line to the finish line and his time taken is recorded in seconds (nearest to the tenth of a second.) This indicates his score.

Item No. 6—600 Yard Run : This run can be organized on a track, on a football field or an open area marked for this purpose. In this test item, a subject runs a distance of 600 yards. The subject takes a standing start from the start 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. (The time taken to run the distance is recorded in minutes and seconds).