

CBSE Test Paper 01
CH- 06 Test and Measurement in Sports

1. What is the purpose of six minute walk test?
2. What is cardio-respiratory endurance?
3. Enlist are the advantages and disadvantages of sit and reach flexibility test?
4. What is test in Sports?
5. Find out the purpose of Sit & reach test.
6. Find out any two test items in Kraus Weber Test.
7. Give the names of the tests design by Rikli and Jones for senior citizen fitness and state what each test is used to test.
8. Calculate the Physical Fitness Index using short formula for a 12 year old by having completed Harvard step test for a duration of 3 minute and a pulse rate of 54 beats for 1 to 1.5 minute.
9. Describe the procedure for Administering the Rikli and Jones Senior Citizen Fitness Test.
10. What are the six test items of the Kraus Weber muscular strength test?

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Answer

1. Purpose: This test measures aerobic fitness and endurance of senior citizens.
2. The heart's ability to deliver blood to working muscles and their ability to use it, it is called Cardio respiratory endurance.
3. Advantages:
 - i. Sit and reach flexibility test requires one specialised box only.
 - ii. It is easy and quick to perform.
 - iii. Need less space to administer the test.

Disadvantages:

1. Every individual has different arm length and can vary the result of flexibility.
 2. This test is only restricted to muscles and joints of lower back only and does not measure flexibility of other parts of the body
4. In scientific terms/test means an Instrument to be used for measuring anything. It may be running, walking etc. (for fitness testing)
5. The sit and reach test is a common measure of flexibility, and specifically measures the flexibility of the lower back and hamstring muscles. This test is important as because tightness in this area is implicated in lumbar lordosis, and lower back pain. This test was first described by Wells and Dillon (1952) and is now widely used as a general test of flexibility.
6. Exercise
 1. Bent knee sit up, Exercise
 2. Sit up with legs extended Exercise
 3. Hip flexors extension
 4. Exercise to test the muscles of upper back.

5. Exercise targets the muscles of the lower back.
6. Bend forward to touch the floor for three seconds. & this exercise tests overall flexibility, especially in the muscles of the back.
7. The tests design by Rikli and Jones for senior citizen fitness are
 - i. Chair stand test for lower body strength.
 - ii. Arm curl test for upper body strength and endurance.
 - iii. Chair sit and reach test for lower body flexibility.
 - iv. Back scratch test for upper body flexibility.
 - v. Eight foot up and go test for coordination and agility.
 - vi. Six minute walk test for aerobic fitness and endurance.
8. Short formula is: $\text{Physical Fitness Index} = \frac{\text{Duration of exercise in seconds} \times 100}{5.5 \times \text{pulse count between 1-1.5 minute}}$
 Duration of exercise for 12-year old by is = 3 minutes
 Pulse count for 1 to 1.5 minutes = 54
 $\text{Physical Fitness Index} = \frac{180 \text{ seconds} \times 100}{5.5 \times 54} = \frac{18000}{297} = 60.61$
 So, by looking at the norms of Harvard Step Test, the 12 year old by physical condition is under the category of low average.
9. The Rikli and Jones Senior Citizen Fitness Test for assessing the functional fitness of older adults describes easy to understand and effective tests to measure aerobic fitness, strength and flexibility using minimal and inexpensive equipment. The Individual fitness test items involve common activities such as getting up from a chair, walking, lifting, bending and stretching.

The tests were developed to be safe and enjoyable for older adults while still meeting scientific standards for reliability and validity. The tests are

- i. Chair Stand Test-testing lower body strength
- ii. Arm Curl Test-testing upper body strength
- iii. Chair sit and Reach Test-lower body flexibility test
- iv. Back Scratch Test-upper body flexibility test
- v. 8 Foot Up and Go Test-agility test
- vi. Walk Test (6 min) or Step in Place Test (2 min)-The V, falk Test is used to assess aerobic fitness ; however, if the person uses orthopedic devices when walking or

has difficulty balancing, they do the Step in Place Test.

10. Kraus Weber Test :- It is a test of minimum muscular fitness of the various muscles of the body.

The test consists of six items which indicate the level of muscular strength and flexibility of key muscle groups. Usually, the scoring of each item is graded either on pass/fail basis or a range of scoring from zero to ten. A subject's grade of zero means that the subject has failed in a particular test item; score ranges from one to ten are for subjects who pass these test items.

The six tests are:-

1. Test 1 tests the strength of the abdominal and poses muscles.
2. Test 2 tests the strength of the abdominal muscles.
3. Test 3 tests the strength of the poses muscles.
4. Test 4 tests the strength of the upper back.
5. Test 5 tests the strength of the lower back.
6. Test 6 tests the strength of the back and hamstring muscles.

The abdominal and poses muscles. (hip flexing) Muscles The subject lies supine with hands behind the neck. The feet are held by the examiner. On command, the subject rolls up into a sitting position. This is a test of the strength of abdominal and poses muscles. If the subject performs one sit-up then passes otherwise score remains zero.

1. The abdominal muscles. The subject lies supine. hands behind neck and knees bent On command, the subject tries to roll up into a sitting position. This is a further test of abdominal muscles without poses Scoring is like test 1.
2. The upper back:- The subject he's supine with hands behind the neck and legs extended. On command, the feet are lifted 25 cms (10 inches) above the ground and maintained for ten seconds. This is a test for the strength of poses and lower abdominal muscles. Scoring depends on the number of seconds the exact position is held.
3. The upper back:- The subject he; prone with a pillow under the abdomen but far enough down to give a see-saw effect. He holds his hands behind the neck. The examiner holds down the feet and asks the subject to raise up his chest, head, and

shoulders and maintain the position for ten seconds. This test is for the strength of the upper back muscles Scoring is like test.

4. The Lower Back:- The subject he's prone over the pillow and places his hands in front and rests his head on them. The examiner holds the chest down and ask; the subject to lift his legs up without bending the knees and maintain the position for ten seconds. This is a test for the strength of the lower back muscles Scoring is like test.
5. The back and hamstring muscles:- The subject stands erect with his hands at sides and feet together. On command, he Jeans down slowly to touch the floor with his fingertips The knees are kept straight and the leaning down position is maintained for ten seconds. No bouncing is allowed to touch. This tests the length of back and hamstring muscles and is a test of flexibility. Scoring is like the above tests.