UNIT-6
TEST AND MEASUREMENT IN SPORTS

• **TOPIC-**
  MOTOR FITNESS TEST- 50 M STANDING START, 600 M RUN WALK, SIT AND REACH, PARTIAL CURL UP, PUSH UPS (BOYS), MODIFIED PUSH UPS (GIRLS), STANDING BROAD JUMP, AGILITY- 4 x 10 m SHUTTLE RUN

Dear Students,

As we are noticing that COVID-19 Cases are increasing day by day. So, This is very crucial time. Take care of yourself and your family and go through the topic that I am providing you.
Stay Home, Stay Safe, Follow the guidelines of COVID-19.

Regards,
Renu Tyagi
UNIT-6
Test & Measurement in Sports

Key Points :

6.1 Motor fitness test-50 m standing start, 600 m Run/walk, sit & Reach, Partial curl up, Push ups (Boys), modified push ups (Girls), standing Broad Jump, Agility-4 × 10 m shuttle Run

General Motor Fitness-Barrow three item general motor ability (Standing Broad Jump, Zig Zag, Medicine Ball Put - For Boys: 03 Kg & For Girls: 01 Kg)

Measurement of Cardio Vascular Fitness - Harvard Step Test/Rockport Test

Computation of Fitness Index =

Duration of the Exercise in Second × 100

5.5 × Pulse count between 1 to 1.5 Min after Exercise

Rikli and Jones - Senior Citizen Fitness test
1. Chair stand test for lower body strength
2. Arm curl test for upper body strength
3. Chair sit & reach test for lower body flexibility.
5. Eight foot up & go test for agility.
6. Six minutes walk test for aerobic endurance.

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 Sums 8. Agility - 4 × 10 m Shuttle Run

TEST AND MEASUREMENT IN SPORTS
Multiple Choice Questions (1 Marks)

Q. Match the following

1. 600 m Run/walk   A Flexibility
2. Sit and Reach     B Upper muscular strength
3. Push ups (Boys)   C Agility
4. 4 × 10 m Shuttle Run   D Aerobic capacity

A. 1- C, 2 - B, 3 - D, 4 - A
B. 1D, 2A, 3B, 4C
C. 1B, 2C, 3D, 4A
D. 1,B, 2A, 3C, 4D

Q. Partial curl up test for

A. To measure the explosive power of legs
B. To measure agility and speed.
C. To measure abdominal strength
D. To measure acceleration speed

Q. Athlete speed (Acceleration) is measured

A. Modified push ups (Girls)
B. 4 × 10 m shuttle Run
C. 50 m standing start
D. Sit and Reach
Q.4. Modified push ups for

A. Volleyball player
B. Boys
C. Cricket player
D. Girls

Short Question (3 Marks)

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

Ans. 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 stating 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.
Q. Standing broad Jump tests the strength of which part of the body. Explain the procedure of the test.

Ans. 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.

Q. Briefly describe the process and scoring of the 4 × 10 m shuttle Run?

Ans. Shuttle Run

Purpose: To measure speed and agility

Procedure: Two parallel lines are marked 10 mts 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 similary lift other block 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.

Long Question Answer

Q. Enlist of motor fitness test and explain the proces of any Two test.

Ans. Motor fitness test
50 m standing start
1. 600 m Run/walk
2. Sit and Reach test
3. Partial Curlup
4. Push ups (Boys)
5. Modified push ups (Girls)
6. Standing Broad Jump
7. 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 least 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 an 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 student's 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 throughout.

**Scoring:** Record the total number of curl-ups, only, correctly performed curl ups should be counted.
Practice Question 6:1

Short Answer Question (3 Marks)

 Explain procedure of any two tests in motor fitness test  
1½ + 1½

 Which test is used for agility. Explain in detail? 3

 Explain procedure of push-ups (for boys) and modified push ups.  
(for girls) 1½ + 1½

Long question (5 Marks)

 Explain in detail the procedure of any two test in motor fitness test?  
2½ + 2½

 Explain in detail the procedure and scoring of standing broad jump and sit and Reach test.  
2½ + 2½