# SOLVED PAPER with CBSE Marking Scheme

## C.B.S.E. 2018 Class–XII

Physical Education (Theory)

Time allowed: 3 Hours Max. Marks: 70

Delhi & Outside Delhi

#### **General Instructions:**

- (i) This question paper contains 26 questions.
- (ii) All questions are compulsory.
- (iii) Questions no. 1 to 11 carry 1 mark each. Answers to these questions should be in approximately 10-20 words each.
- (iv) Question no. 12 to 19 carry 3 marks each. Answers to these questions should be in approximately 30 50 words each.
- (v) Questions no. 20 to 26 carry 5 marks each. Answers to these questions should be in approximately 75 100 words each.

1.	What do you mean by 'Seeding'?	1			
2.	What do you mean by food intolerance?	1			
3.	What is the main physiological cause of Asthma?	1			
4.	What is Attention Deficit/Hyperactivity Disorder (ADHD) ?				
5.	What do you mean by Congenital Deformity?				
6.	What is Bulimia?				
7.	Explain the meaning of cardiac output.				
8.	What type of sports injury can be termed as 'Laceration' in sports?				
9.	Which field of study in sports is called 'Biomechanics'?				
10.	What do you mean by the term 'Aggression' in sports?				
11.	What is coordinative ability?				
12.	What are the advantages and disadvantages of food supplements for adolescents? Write briefly.	3			
13.	Sushant was a good athlete. He used to practise regularly to achieve a position at the State level. But he could no get success. He got frustrated with his poor performance and started misbehaving with his teachers and friend				
	in school. Due to depression and anxiety, he started taking drugs. The Principal counselled Sushant and called hiparents.	3			
They took him to a rehabilitation centre for treatment. After a few months, he recovered and came back left the basis of above passage answer the following questions:					
	(b) What values are shown by the Principal?				
	(c) What should be the attitude of the teachers and the parents after his recovery?				
14.		3			
15.		3			
16.	Keeping in view the Indian ideology, critically analyse the sociological aspect of participation by women athlete in sports.	s 3			
17.	What do you understand by 'First Aid'? Discuss briefly about the aims and objectives of First Aid.	3			
18.	Mention briefly about the common sports injuries and their prevention.	3			
19.	Explain the "Eight Foot Up and Go" Test for measuring agility and dynamic balance.	3			
20.	Define Combination Tournament. Draw a fixture of 16 teams using Knock–out cum League Method.	5			
21.	What are the causes of back pain? Explain the procedure, benefits and contra-indications of any two asana	s 5			

- 22. Describe exercise guidelines at different stages of growth in children. Give suitable examples for every stage. 5
- Write in detail about the various test items and their administration of the American Alliance for Health, Physical Education and Recreation (AAPHER) Test.
- 24. What are the long term effects of regular exercise on the cardiovascular system? Explain.
- **25.** What is aerodynamics? Describe the basic forces of aerodynamics.
- **26.** What is circuit training? Draw a diagram of 10 stations to improve general fitness. How can load be increased in circuit training?

# CBSE Marking Scheme (Issued by Board)

- Seeding is such a method in which a strong team / players are selected to keep them at appropriate place in the fixture so that they do not meet in the earlier round. The organizer must be well aware regarding the previous performance of the selected team/player.
- 2. Food intolerance means the individual element of certain food that cannot be properly processed and absorbed by the digestive system.
- Asthma is a disease of lungs in which the air-way swells up and produces extra mucus. As a result the airway become blocked or narrowed causing difficulty in breathing. It can be due to genetic factor or allergy.
- 4. Attention Deficit Hyperactivity Disorder is a group of behavioural symptoms that include inattentiveness, hyperactivity and impulsiveness. In fact it is a medical condition that indicates that the child cannot sit still, focus and pay attention. 1
- **5.** Congenital Deformity is a deformity / defect that is present at the time of birth but it is not inherited. **1**
- Bulimia is an eating disorder in which an athlete/ person eats excessive amount of food and then vomits in order not to gain body weight.
- 7. It is the amount/volume of blood pumped out by the heart in one minute.
- Laceration is an irregular cut on the skin with a sharp object or sharp edged sports equipment.
- **9.** Biomechanics is the study of internal and external forces and their effects on living system or athlete.**1**
- 10. The term aggression refers to a type of behaviour that can result in both physical and psychological harm to one self/others or any object in the environment.
  1

#### OR

Aggression is an assertive behaviour where a player plays within the rules of sports at very high intensity but has no intention to harm an opponent. 1

11. Coordinative ability is the ability of the body to bring together different elements of a complex activity into an efficient relationship.

#### OR

Coordinative ability is an ability that enables the sportsman to do a group of movements with better quality and effect.

1

#### 12. Advantages:-

(a) Play vital role in proper growth and development.

5

5

 $1\frac{1}{2}$ 

- (b) Energy booster.
- (c) Better sports performance.
- (d) Improves immunity.
- (e) Prevention of disease and ailments.
- (f) Short term health benefits

#### Disadvantages:-

- (a) Excess of Iron and Magnesium can cause digestive problems.
- **(b)** If excessive dosage is taken it can lead to diarrhoea, fatigue and nerve damage.
- (c) May have adverse effects.
- (d) Fat soluble vitamins get accumulated in the fat tissues if not required by body.
- (e) Supplements are less healthy than natural food. (Explain any 3 points for each) 1½

#### 13.(a) No (Explain briefly) 1

- (b) Concern, Sympathy, Faith, Helpful, Caring, Professionalism, Affection. (Any two) 1
- (c) Positive attitude, caring, supportive, helpful, vigilant, friendly (Any two) 1

#### [CBSE Marking Scheme, 2018]

#### Detailed Answer:

- **13. (a)** Consuming drugs is definitely not a solution to emotion-focused problems. It is just a short-term diversion of mind from the actual problem.
  - (b) The Principal understands child psychology. He had shown patience. Instead of abusing or scolding Sushant, he focused on understanding the cause of the problem and came up with the best solution to the situation
  - (c) The parents and teacher must help Sushant not to get depressed again. They must not create situations to remind him of his past. In other words, they must behave normally with Sushant.
- 14. (a) Cognitive Disability
  - (b) Intellectual Disability 1
    (c) Physical Disability 1
  - (c) Physical Disability 1

[CBSE Marking Scheme, 2018]

1

#### **Detailed Answer:**

#### The different types of disabilities are:

- (a) Cognitive disabilities: It refers to lower than average intellectual functioning. A person who has cognitive disability has trouble performing mental tasks which an average person would be able to easily.
- **(b)** Intellectual disabilities: It is characterized by below average intelligence or mental ability and a lack of skills necessary for day to day living. People with

intellectual disabilities can and do learn new skills, but they learn very slowly.

(c) Physical disabilities: It is a limitation of a person's physical functioning, mobility, dexterity or stamina. The physical disabilities include impairments which limit other facts of daily living, such as respiratory disorders, blindness, sleep disorders etc.

15.

Running	Jumping	Throwing
Gluteus	Gluteus	Pectoralis major
Quadriceps	Calves	Latissimus dorsi
• Calves	Hamstrings	Anterior deltoid
Hamstrings	Quadriceps	Trapezius
Core Muscles	Tibialis Anterior	Teres major
Biceps	(Mention any two)	• Biceps
(Mention any two)		Triceps
		Deltoid
		External Abdominal oblique
		(Mention any two)

1+1+1=3

- **16.** Women athletes in sports
  - (a) Family
- (b) School
- (c) Culture
- (d) lack of facility
- (e) Lack of role model (f)
- **(f)** Less of coaches

(Explain any three) 1+1+1=3 [CBSE Marking Scheme, 2018]

#### Detailed Answer:

Sociological aspects of participation by women athletes in sports are :

- (a) Family: It is a very significant social factor which is said to be generally responsible for early sports socialization. Males usually get more support and encouragement to get involved in sports activities. However, females are not encouraged to get involved in sports activities. Some sports sociologists argue that females are encouraged only in such sports which are considered to be feminine. Most of the parents believe in not sending their daughters for sports activities. While on the other hand, some parents understand the value of sports and always try to motivate their daughters to participate in sports.
- (b) School: If the pressure to participate is not laid at home it may come from coaches, peers and particularly from the teachers who are the main driving forces within the educational sectors. School is thus important as it moulds the lives of our developing teenagers. In some schools there is still a discrimination as to which gender (male/female) should participate in games. As a matter of fact, a lot of schools do not have girls' football, or volleyball teams. It depends on the school whether females are encouraged or not.

- (c) Culture: It has been seen that cultural belief can affect the progress of certain areas in life. In fact, cultural believes have a great impact on the involvement of females in sport. Participation in sport is seen as masculine activity and therefore, female participation is viewed negatively.
- (d) Attitudes and prejudices of society: Some females avoid certain sports due to fear of being perceived masculine. Such attitude and prejudices of societies regarding sexuality, inhibit the females from participating.
- 17. First Aid: First aid is the first help given to the wounded (or) accidental victim before the arrival of the doctor.

#### Aim:

The main aim is of first aid is to try to save the precious life of wounded person.

#### Objective:

- (a) To preserve life
- (b) To prevent the condition from worsening
- (c) To alleviate pain and suffering
- (d) To promote recovery
- (e) To procure early medical aid.

[CBSE Marking Scheme, 2018] 1

#### Detailed Answer:

First Aid is an immediate and temporary help and care given to a wounded person or victim of an accident before a doctor arrives.

There are three aims and objectives of first aid referred to as 'the Three Ps of first aid.'

(a) Preserve life: Trying to preserve life is always the first and overall aim of administering first aid. This also includes preserving the life of the person giving the first aid.

- (b) Prevent worsening or deterioration of the situation: The second aim of first aid is to avoid further worsening or degradation of the condition of a casualty. This also includes making the area surrounding the patient safe by removing the dangers around, keeping the patient in a more secure environment or position and calling for immediate specialist help.
- (c) Promote recovery: The final aim of first aid is to promote recovery of the victim. First aid when given to a patient before professional medical help arrives, significantly promotes the long-term recovery of a condition or injury. Promoting recovery is also achieved by arranging for immediate emergency professional care.

18. Common Sports injuries

Soft tissue	injuries
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- Contusion
- Strain
- Sprain
- Abrasion
- Bruises

(Mention all the injuries only and describe any one)

- Bone Injuries
- Simple fracture
- Compound fracture
- Complicated fracture
- Communicated fracture
- · Impacted fracture
- · Greenstick fracture

(Mention all the injuries only and describe any one)

#### Joint Injuries

- Dislocation of lower jaw
- · Dislocation of shoulder joint
- Dislocation of Hip joint
- Dislocation of wrist

(Mention all the injuries only and describe any one)

#### Prevention

- (a) Warming up
- (b) Proper conditioning
- (c) Discontinue to play during the state of fatigue
- (d) Good officiating
- (e) Sports equipment
- (f) Playfield/count
- (g) Scientific knowledge of game
- (h) Protective equipment
- (i) Equipment of good quality
- (i) Protective equipment should be used

(Any three in brief) 1.5+1.5=3

19. "Eight foot up and go"

#### Purpose

This test helps to evaluate speed, agility and dynamic balance

#### **Equipment** required

A chair about 44 inch high, a stop watch, cone, marker, measuring tape, and an area without any hindrance.

#### Procedure

Keep a chair next to the wall and place the cone / marker 8 feet away in front of the chair. The participant is initially completely seated, hands resting on the knees and feet. Feet on the ground. On the command go stop watch is switched on and the participant starts walking (no running at all) as quickly as possible towards the cone, turns around and returns to the chair to sit down . Time is noted as he sit down on the chair. Two trials are given per participants.

#### 20. Combination of Tournament

Combination Tournament are those tournament in which initial round of tournament are played on particular basis (knock-out or league) and rest of the tournament played on another particular basis (Knock - out/league)

#### **Fixtures**

No. of teams = 16

For combination tournament teams are divided into four equal parts.

Group = 
$$=\frac{16}{4}$$
 = 4

Group A (First four teams.)

Group B (Second four teams) (Attempting any one fixture either knock out or

Group C (Third four teams) League can be considered for full 3 marks)

Group D (Last four teams)

Round I-- Group A

Round I-- Group A

$$\begin{bmatrix} 1 \\ 2 \end{bmatrix} \quad \begin{bmatrix} 2 \\ 3 \\ 4 \end{bmatrix} \quad \begin{bmatrix} 4 \text{ Winner} \end{bmatrix}$$

Round I-- Group B

$$\begin{bmatrix} 5 \\ 6 \end{bmatrix} = \begin{bmatrix} 5 \\ 7 \\ 8 \end{bmatrix} = \begin{bmatrix} 7 \\ 7 \end{bmatrix}$$
 Winner

Round I-- Group C

$$\begin{bmatrix} 9 \\ 10 \end{bmatrix} = \begin{bmatrix} 10 \\ 12 \end{bmatrix}$$
 12 Winner

Round I-- Group D

Winner of each Team will participate in league tournament.

League Tournament

4, 7, 12, 13

No of matches for league tournament

$$\frac{n(n-1)}{2} = \frac{4 \times 3}{2} = \frac{12}{2} = 06$$

Fixture of league tournament by stair case method

4-7

 $4-12 \quad 7-12$ 

4-13 7-13 12-13

OR

#### Cyclic method

I II III

4-13 4-12 4-7

7-12 13-7 12-13

2+3=5

#### 21. Causes of back pain

- (a) Over weight
- (b) Lack of exercise
- (c) Bad Sitting/ sleeping posture
- (d) Lack of Flexibility.
- (e) Undue Stress on back
- (f) Improper warming up and cooling down

(Explain any two)

## Asanas to be Explained (Procedure, benefits and contra-indications of any 2)

- (a) Ardha Matsyendrasana
- (b) Vakrasana
- (c) Salabhasana
- (d) Tadasana
- (e) Bhujangasana

[CBSE Marking Scheme, 2018] 2+3=5

#### **Detailed Answer:**

Back pain is the pain felt in the backbone. Episodes of back pain may be acute, sub-acute, or chronic depending on the duration. The pain may be characterized as a dull ache, shooting or a burning sensation. The pain may originate from the muscles, nerves, bones, joints. It is generally caused by strained muscles, ruptured disk, sciatica, arthritis, osteoporosis, abnormal curvature of spine, cancer of the spine, etc.

#### Asanas recommended for back pain:

(a) Tadasana: In this asana, body imitates like a palm tree known as Tada in Sanskrit.

#### Procedure:

- (i) Stand erect, legs together, hands by the side of the thighs.
- (ii) Stretch the arms upward, over the head and parallel to each other, with palms facing each other.
- (iii) Slowly raise the heels and stand on the toes. Stay for a few seconds in this final position.

#### Benefits:

- (i) It strengthens thighs, knees, ankles.
- (ii) It helps in improving height of growing children.
- (iii) It helps to remove laziness.

**Contra-indications**: Those who have complaints of reeling sensation or light-headedness should not practice this.

#### (b) Ardha-Matsyendrasana:

#### **Procedure:**

- (i) Bend the right leg and place right foot near the buttock. The outer edge of the foot should touch the ground.
- (ii) Bend the left leg at the knee and place left foot flat on the floor near outside of the right knee.
- (iii) Bring the right arm over the left knee and hold the left foot with right hand. Slowly twist the trunk to the left side and take the left arm behind the back and wrap it around the waist.
- (iv) Turn the head towards the left and look back. Maintain the position for 5-10 seconds.

#### Benefits:

- (i) Improves concentration.
- (ii) Every vertebra of the spine gets fully stretched.
- (iii) It reduces digestive problems.
- (iv) Brings the trunk muscle in proper tone.

**Contra-indications**: Person suffering from peptic ulcer, hernia, enlarged liver, or having any surgery in abdominal region should not practice this asana.

#### (c) Vakrasana: Procedure:

- (i) Sit down stretching your legs forward on the ground. Keep your hands beside your thighs or buttock.
- (ii) Bend your right leg straight and stretched, keep the left foot beside the right knee raised upward.
- (iii) Inhale and raise the arms shoulder high, keeping the elbows straight.
- (iv) Exhaling, twist to the left, place the right arm by the outer side of the left knee and hold the left ankle with the right hand.
- (v) Look backward towards left side, hold on this final position.

#### **Benefits:**

- (i) Increases elasticity of spine.
- (ii) Stretches the muscles.
- (iii) Reduces belly fat.
- (iv) Loosens the hip joint.
- (v) Massages the abdominal organs.

#### Contra-indications :

(i) Avoid the asana if suffering from severe back pain. (ii) This asana is also not recommended for people suffering from ulcer and hernia.

#### (d) Shalabhasana: Procedure:

- (i) Lie flat on the stomach, legs together, hands by the side of the thighs palm facing downwards.
- (ii) Stretch both the arms and place the hands under the thighs.
- (iii) Inhaling, raise both the legs upwards as high as possible. Maintain the position for 5 10 seconds.

#### Benefits:

- (i) Reduces lower back pain.
- (ii) Enhances concentration.
- (iii) Waist becomes elastic and flexible.

#### **Contra-indications:**

Person suffering from ulcer in stomach, high B.P., cardiac complaints should not practice this asana.

22. Different Stages of growth in children.

#### Infancy (1 to 2 years)

- (a) Gross motor developmental skills
- (b) Head Control
- (c) Sitting
- (d) Crawling
- (e) Moving arms, legs
- (f) Reaching to various object
- (g) Infants should be provided with objects, toys and games
- (h) Throwing, Catching and kicking a ball

#### [Explain any one]

#### Early Childhood (3 to 7 years)

- (a) Fine motors developmental skills i.e. coordinative activities.
- **(b)** Movement skills(throwing, jumping, catching or kicking the ball)
- (c) Emphasis on participation and not on competition.
- (d) Structured as well as unstructured physical activities should be performed daily for at least sixty minutes daily.
- (e) They may be allowed to watch quality programmes on T.V. for one to two hours.

#### [Explain any two]

### Later Childhood – (8 to 12 years)

# (a) Stunts, throwing, jumping, Catching, running etc. so that they can acquire body control, strength and coordination.

- **(b)** Participation in organized or team games which aim to develop social consciousness in them.
- **(c)** Children should be introduced to competitive sports and taught the basic rules of sports competition
- (d) Introduction of concept of endurance, strength, agility, coordination and balance.

#### (Explain any two) 1+2+2=5

# 23. Administration of AAHPER motor Fitness Test:-The test is administered on school student of around 17 years of age. It includes.

- (a) Pull up for boys (b) Sit-up
- (c) Shuttle run
- (d) Standing long jump
- (e) 50 mts. dash
- (f) 600 Years run/walk

#### [CBSE Marking Scheme, 2018] 5

#### **Detailed Answer:**

AAPHERD stands for American Alliance for Health Physical Education, Recreation and Dance. In 1965, AAPHER led to the collection of wide ranging records or data and revision of the national norms. The following test items are included in this test battery.

- (a) Pull-ups (for boys ) or flexed arm hangs (for girls).
- **(b)** Sit ups to a maximum of 50 (for girls) and 100 for boys.
- (c) Shuttle Run.
- (d) Standing Broad Jump.
- (e) 50 yard dash.
- (f) Six hundred yard run/walk.
- (g) Softball throw for distance.

In 1976, AAPHER Youth Fitness Test was again revised and the following changes were made:

- (a) The softball throw test item was deleted.
- **(b)** Fixed number of straight leg sit ups test was changed to bent knee sit-ups performed in 60 seconds.
- (c) 600 yard run/walk was made optional and the individuals could opt for their 600 yard run/walk or 9 minute run/walk or 1 mile (for ages 10-12) run/walk i.e., 12 minute run/walk (for ages 13 and above).

After the revision of AAPHER Youth fitness test in 1976 or 1.5 mile run/walk, following items were finalized in this test battery.

- (a) Pull ups (for boys) flexed arm hang (for girls)
- (b) Bent knee sit ups
- (c) Shuttle sum
- (d) Standing board jump
- (e) 50 yard dash
- (f) 600 yard or 9 min run/walk
- (a) Pull ups (for Boys)

**Purpose:** To measure arm and shoulder strength.

**Procedure:** The bar is adjusted according to the height of the boy. The bar is held with his palms facing away from him. He is then asked to raise his body so that the chin reaches the level of the bar. One score is awarded for each pull up. One trial is given before the start of the test. **Flexed Arm Hang (for girls)** 

Purpose: To measure arm and shoulder strength.

**Procedure :** The bar is adjusted according to the standing height of the girl. The bar is held with

over hand grasp. The girl lifts her body up with the assistance of testing personnel so that her chin reaches the bar level. The time in seconds she holds the bar, is taken as her score.

**(b) Flexed leg sit ups : Purpose :** To measure abdominal strength and endurance.

**Procedure:** The youth is asked to lie on the floor on his/her back keeping knees bent. The angle of the knees should be around 90°. The feet are held by the partner, the youth puts hand behind the head with fingers interlocked. Then the youth curls up and touches the elbow to knees. The score is counted as maximum number of sit ups in 60 sec.

(c) Shuttle Run : Purpose : To measure speed and agility

**Procedure :** Two parallel lines are marked 30 feet apart and two wooden blocks  $2 \times 2 \times 4$  inches are kept on one side of a marked line. The youth stands behind the line opposite to the line where wooden blocks are placed. At the start signal, youth runs towards the wooden blocks and picks up one of them, carrying it to the line from where the test started. The youth then runs and similarly lifts the other block and places it at the starting line.

- (d) Standing Broad Jump: Purpose: To measure power Procedure: The youth is asked to stand behind the restraining line with feet apart and he/she bends the knee and swinging arm before jumping. The youth lands on both the feet together. The distance from take-off line to the heel is measured in inches. The best of three trials is recorded as the final score.
- (e) 50 yard dash: Purpose: To measure speed Procedure: The youth is asked to run 50 yards and the time is recorded nearest to one-tenths of a second.
- (f) 600 yard run/walk: Purpose: To measure endurance Procedure: The youth is asked to run/walk for 600 yards and the time is recorded in minutes and seconds.

#### 24. Cardiovascular system

- (a) Increase in of heart rate
- **(b)** Decrease in Resting Heart rate
- (c) Stroke Volume Increases at rest
- (d) Increase in Cardiac output ( Any five to be explained)
- (e) Increase in Blood Flow
- (f) Decrease in Blood pressure
- (g) Increase in Blood Volume
- (h) Quicker Recovery Rate
- (i) Reduced Risk of Heart Disease

[CBSE Marking Scheme, 2018]  $5 \times 1 = 5$ 

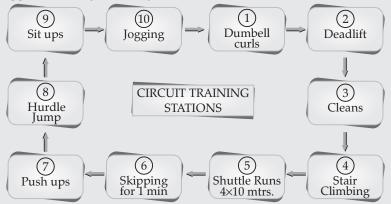
#### **Detailed Answer:**

Long term effects of exercises on cardiovascular system:

- (a) Heart size increases: The size of the heart and the strength of the cardiac muscle increases due to regular exercises as to the maximum extent the left ventricle adapts. The walls of the heart becomes stronger and thicker as shown in recent studies and the thickness of myocardial wall increases as well.
- (b) Resting heart rate decreases: The resting heart rate decreases due to regular exercises. After duration of 10–week training programme, the resting heart rate may reduce upto 10 beats per minute from the normal of 72 beats per minute. The heart becomes more efficient due to regular exercises. In highly conditioned athletes, the resting heart rate decreases to 30 beats/minute.
- (c) Blood flow increases: The body increases its number of capillaries to the requirement of supplying more oxygen during exercise to the muscles. The existing capillaries open wider as well. Further, the redistribution of blood becomes efficient and effectual. As a matter of fact, blood circulation in the body increases.
- (d) Cardiac output increases: The cardiac output tends to increase as a result of regular exercise. At resting conditions, in untrained individuals, the cardiac output can possibly be 14 to 20 litres/minute while for trained individuals it can be upto 25 to 35 litres/minute and cardiac output can be as high as 40 litres/minute in elite athletes.
- (e) Risk of heart disease reduces: Stress related hormones progressively get reduced from circulating in the blood due to regular exercises. This increases the blood vessel pathway, which consecutively reduces the risk for the increase of plaque that leads to coronary heart disease. Therefore, the risk of heart diseases reduces due to exercises
- (f) Blood volume increases: The blood volume increases due to regular exercise. Actually, as the blood volume enhances, there is an increases in plasma volume. Additionally, during heavy exercise, in order to keep the muscle supplied with oxygen, the body produces a greater number of red blood cells.
- 25. The word 'Aerodynamics' is originated from the Greek word aero means related to air and dynamics means motion. So, collectively aerodynamics means the study of motion of air. It is the way air moves around things. In simple words, aerodynamics is related to the flow of air around a projectile which can influence speed and direction of the object.

#### **Basic forces of Aerodynamics**

- **(a) Lift** /**Air Resistance:** It is the force that pushes the object to move upward.
- (b) Weight /Head Wind: It is the force generated by
- the gravitational attraction of the earth.
- (c) Drag/Tail Wind: It is a force that tries to slow the object down
- (d) Thrust: It is the force that is opposite of drag. 5
- **26.** Circuit training is the training method in which exercise of various kinds are performed with or without apparatus with given dosage.



(Any other relevant 10 stations as per requirement of the game/sport)

#### How to increase the load in circuit training?

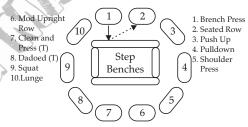
- (a) Number of repetition can be increased per exercise.
- (b) Frequency can be increased.
- (c) Additional load can be increased.
- (d) Interval between exercises can be reduced.
- (e) Number of rounds can be increased.

#### [CBSE Marking Scheme, 2018] 1+2+2=5

#### **Detailed Answer:**

Circuit training is a form of body conditioning, endurance training or resistance training using high-intensity. It is an excellent way to improve mobility, strength and stamina. The training comprises of six to ten strength exercises that are completed one exercise after another. Each exercise is performed for a specified number of repetitions or for a set time before moving on to next exercise. The exercises within each circuit are separated by a short rest period and circuit is separated by a longer rest period.

Diagram of 10 stations to improve general fitness



## Following points are important to increase load in circuit training:

- a) Number of repetitions can be increased per exercise.
- (b) Frequency can be increased.
- (c) Additional load can be increased.
- (d) Interval between exercises can be reduced.
- (e) Number of rounds in a circle can be increased.