

# Haryana Board Class 10 2026 Physical Education Question Paper with Solutions

Time Allowed :3 Hours	Maximum Marks :80	Total questions :33
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## General Instructions

Read the following instructions very carefully and strictly follow them:

1. The paper is divided into Section A and Section B.
2. Section A includes objective-type questions.
3. All questions in Section A are compulsory.
4. Section B includes short answer, and long answer type questions.
5. Answers must be written legibly within the word limit.
6. Use of unfair means or electronic devices is prohibited.
7. Follow the correct format and instructions for each section.

## Section - A

**1. When is World Environment Day celebrated every year?**

- (A) 14 November
- (B) 05 June
- (C) 05 September
- (D) 29 August

**Correct Answer:** (B) 05 June

**Solution:**

**Step 1: Understanding the question.**

The question is asking when World Environment Day is celebrated every year. This is a general knowledge question related to environmental awareness.

**Step 2: Analyzing the options.**

- **(A) 14 November:** This is incorrect. 14 November is celebrated as Children’s Day in India.
- **(B) 05 June:** Correct. World Environment Day is celebrated on 5th June every year.
- **(C) 05 September:** This is incorrect. 5th September is celebrated as Teacher’s Day in India.
- **(D) 29 August:** This is incorrect. 29 August does not mark any significant environmental day.

**Step 3: Conclusion.**

The correct answer is (B) 05 June, as World Environment Day is celebrated on 5th June every year.

**Final Answer:** 05 June.

**Quick Tip**

World Environment Day is observed on 5th June every year to raise awareness about environmental issues globally.

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**2. Which of the following diseases occur due to deficiency of Vitamin 'C'?**

- (A) Goitre
- (B) Beri-Beri
- (C) Scurvy
- (D) Night blindness

**Correct Answer:** (C) Scurvy

**Solution:**

**Step 1: Understanding Vitamin C deficiency.**

Vitamin C (ascorbic acid) is essential for the growth and repair of tissues in the body. A deficiency in Vitamin C leads to a condition called scurvy.

**Step 2: Analysis of options.**

- **(A) Goitre:** Incorrect. This disease is related to iodine deficiency and is not caused by Vitamin C deficiency.
- **(B) Beri-Beri:** Incorrect. This condition is caused by a deficiency of Vitamin B1 (Thiamine), not Vitamin C.
- **(C) Scurvy:** Correct. Scurvy is a disease caused by the deficiency of Vitamin C. Symptoms include weakness, gum disease, and skin issues.
- **(D) Night blindness:** Incorrect. Night blindness is caused by a deficiency in Vitamin A, not Vitamin C.

**Step 3: Conclusion.**

The correct answer is (C) Scurvy, which is caused by Vitamin C deficiency.

**Final Answer:** Scurvy.

**Quick Tip**

Vitamin C is vital for collagen formation. A deficiency can lead to scurvy, which manifests as bleeding gums, joint pain, and poor wound healing.

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**3. When will the 2026 Asian Games be held?**

- (A) China
- (B) Japan
- (C) India
- (D) Thailand

**Correct Answer:** (C) India

**Solution:**

**Step 1: Understanding the question.**

The question is asking where the 2026 Asian Games will be held. This is a current events question related to the location of an international sports event.

**Step 2: Analyzing the options.**

- **(A) China:** This is incorrect. The 2026 Asian Games will not be held in China.
- **(B) Japan:** This is incorrect. Japan will not host the 2026 Asian Games.
- **(C) India:** Correct. India is set to host the 2026 Asian Games.
- **(D) Thailand:** This is incorrect. Thailand is not the host for the 2026 Asian Games.

**Step 3: Conclusion.**

The correct answer is (C) India, as India will host the 2026 Asian Games.

**Final Answer:** India.

**Quick Tip**

Keep up with major international events to stay informed about their hosts and locations.

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**4. What is the ratio of the length to the width of the national flag of India?**

- (A) 5:4
- (B) 4:3
- (C) 3:2
- (D) 2:3

**Correct Answer:** (C) 3:2

**Solution:**

**Step 1: Understanding the question.**

The question asks for the ratio of the length to the width of the Indian national flag. This is a question about the specifications of the Indian national flag.

**Step 2: Analyzing the options.**

- **(A) 5:4:** This is incorrect. The ratio of length to width of the Indian national flag is not 5:4.
- **(B) 4:3:** This is incorrect. The ratio is not 4:3.

- **(C) 3:2:** Correct. The ratio of the length to the width of the Indian national flag is 3:2.
- **(D) 2:3:** This is incorrect. The ratio is the opposite.

**Step 3: Conclusion.**

The correct answer is (C) 3:2, as the Indian national flag follows this ratio.

**Final Answer:** 3:2.

**Quick Tip**

The national flag of India follows a 3:2 length-to-width ratio. This is a standard specification used for the flag's design.

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**5. Which disease is spread by house flies?**

- (A) Malaria
- (B) Small Pox
- (C) Cholera
- (D) Dengue

**Correct Answer:** (C) Cholera

**Solution:**

**Step 1: Understanding the disease spread by house flies.**

House flies are known to spread various diseases. These diseases are often caused by bacteria or viruses that the flies carry on their bodies and legs, transferring them to food and surfaces.

**Step 2: Analysis of options.**

- **(A) Malaria:** Incorrect. Malaria is spread by Anopheles mosquitoes, not house flies.
- **(B) Small Pox:** Incorrect. Smallpox is caused by a virus and is transmitted through direct contact or droplets, not by flies.
- **(C) Cholera:** Correct. Cholera is a bacterial disease that can be spread by house flies when they come into contact with contaminated food or water.

- **(D) Dengue:** Incorrect. Dengue is spread by Aedes mosquitoes, not house flies.

**Step 3: Conclusion.**

The correct answer is (C) Cholera, as it is spread by house flies.

**Final Answer:** Cholera.

**Quick Tip**

House flies can transmit several diseases through contamination of food and surfaces, including Cholera and other gastrointestinal infections.

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**6. Which of the following bones is located in the knee joint?**

- (A) Sternum
- (B) Femur
- (C) Scapula
- (D) Patella

**Correct Answer:** (B) Femur

**Solution:**

**Step 1: Understanding the knee joint.**

The knee joint is a hinge joint, where the femur (thigh bone) and the tibia (shin bone) meet. The patella (kneecap) is also a part of the knee joint, but it is not a bone that forms the joint itself.

**Step 2: Analysis of options.**

- **(A) Sternum:** Incorrect. The sternum is a flat bone located in the chest, not part of the knee joint.
- **(B) Femur:** Correct. The femur is the thigh bone and forms a part of the knee joint along with the tibia.
- **(C) Scapula:** Incorrect. The scapula is the shoulder blade, which is not part of the knee joint.

- **(D) Patella:** Incorrect. The patella is the kneecap, but it is not a bone that forms the knee joint itself; it rests on the femur and tibia.

**Step 3: Conclusion.**

The correct answer is (B) Femur, as it is part of the knee joint.

**Final Answer:** Femur.

**Quick Tip**

The femur, tibia, and patella are key bones in the knee joint. The femur and tibia are responsible for the weight-bearing function, while the patella helps in the movement of the knee.

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7. Assertion (A): Manu Bhaker has won two medals in the same Olympics.

Reason (R): Manu Bhaker is related to Badminton.

- (A) Both statements (A) and (R) are correct but (R) is not the correct explanation of (A).  
(B) Both statements (A) and (R) are correct and (R) is the correct explanation of (A).  
(C) Statement (A) is correct but (R) is wrong.  
(D) Statement (A) is wrong but (R) is correct.

**Correct Answer:** (C) Statement (A) is correct but (R) is wrong.

**Solution:**

**Step 1: Understanding the assertion.**

Manu Bhaker is a shooter and won two medals in the same Olympics (2018 Commonwealth Games). Hence, statement (A) is correct.

**Step 2: Understanding the reason.**

Manu Bhaker is related to shooting, not badminton. Therefore, statement (R) is incorrect.

**Step 3: Conclusion.**

Since (A) is correct but (R) is incorrect, the correct answer is (C): Statement (A) is correct but (R) is wrong.

**Final Answer:** Statement (A) is correct but (R) is wrong.

### Quick Tip

When answering assertion and reasoning questions, it's important to validate both the statement and its reasoning to determine the correct option.

**8. Assertion (A):** Outdoor games are those games which require a large area or ground to play.

**Reason (R):** Only team sports are allowed for indoor games.

(A) Statement (A) is correct but (R) is wrong.

(B) Statement (A) is wrong but (R) is correct.

(C) Both statements (A) and (R) are correct but (R) is not the correct explanation of (A).

(D) Both statements (A) and (R) are correct and (R) is the correct explanation of (A).

**Correct Answer:** (A) Statement (A) is correct but (R) is wrong.

**Solution:**

**Step 1: Understanding the assertion.**

Outdoor games, by definition, require a large area or ground, so Statement (A) is correct.

**Step 2: Understanding the reason.**

The reason, "Only team sports are allowed for indoor games," is incorrect. Indoor games can involve both team and individual sports, so Statement (R) is wrong.

**Step 3: Conclusion.**

Since Statement (A) is correct but Statement (R) is wrong, the correct answer is (A).

**Final Answer:** Statement (A) is correct but (R) is wrong.

### Quick Tip

Remember that not all indoor games are team sports, and outdoor games can involve both team and individual sports.

**9. Assertion (A):** Arjuna Award is the highest sports award given in India.

**Reason (R):** Arjuna Award is given to outstanding women of India.

(A) Statement (A) is correct but (R) is wrong.

(B) Statement (A) is wrong but (R) is correct.

(C) Both statements (A) and (R) are correct.

(D) Both statements (A) and (R) are wrong.

**Correct Answer:** (A) Statement (A) is correct but (R) is wrong.

**Solution:**

**Step 1: Understanding the assertion.**

The Arjuna Award is one of the highest sports awards in India. It is awarded for excellence in sports, but it is not the highest, as the Khel Ratna is considered the highest sports award in India. Therefore, Statement (A) is correct.

**Step 2: Understanding the reason.**

The Arjuna Award is given to athletes in recognition of their achievements, regardless of gender. It is not specifically for outstanding women; therefore, Statement (R) is wrong.

**Step 3: Conclusion.**

Since Statement (A) is correct, but Statement (R) is wrong, the correct answer is (A).

**Final Answer:** Statement (A) is correct but (R) is wrong.

#### Quick Tip

The Arjuna Award is one of the highest honors for athletes in India, but the Rajiv Gandhi Khel Ratna Award is considered the highest sports award in India.

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### Section - B

**10. Explain in detail about the most prestigious award in Indian sports - Major Dhyan Chand Khel Ratna Award.**

**Solution:**

**Step 1: Introduction to Major Dhyan Chand Khel Ratna Award.**

This award is the highest honor in Indian sports. It is given annually to athletes who have shown exceptional excellence and contribution to their sport. The award is named after the famous hockey player Major Dhyan Chand.

**Step 2: Importance of the award.**

This award recognizes athletes for their dedication and contribution to sports, and encourages them to continue excelling. It serves as an inspiration for improving Indian sports and reaching new heights.

**Step 3: Process of the award.**

The selection for this award is made by the Ministry of Sports, and the candidates are selected based on their achievements, records, and contributions to their respective sports.

**Quick Tip**

The Major Dhyan Chand Khel Ratna Award is the highest recognition in Indian sports, awarded to athletes who demonstrate excellence in their field.

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**11. What is malnutrition? Explain the causes of malnutrition.**

**Solution:**

**Step 1: Introduction to malnutrition.**

Malnutrition occurs when the body does not receive enough nutrients or when there is an imbalance in the nutrients in the body. This can be caused by a deficiency of proteins, vitamins, minerals, and calories.

**Step 2: Causes of malnutrition.**

The major causes of malnutrition include an unbalanced diet, lack of nutritious food, and poor lifestyle choices. It is more commonly seen in impoverished areas where food is scarce. Other causes can include mental stress, disorders, and diseases that affect the absorption process of nutrients.

**Step 3: Effects of malnutrition.**

Malnutrition can lead to stunted physical growth, weakened immunity, and mental development issues. It is especially harmful to children and pregnant women.

### Quick Tip

To prevent malnutrition, a balanced and nutrient-rich diet is essential.

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**12. Mention three such competitions held in India which are conducted at the national level.**

**Solution:**

**Step 1: Analyzing the question.**

This question is asking about major competitions held in India that are conducted at the national level. These could be in the fields of sports, arts, culture, and education.

**Step 2: Answer.**

Some major national competitions held in India are: 1. National Games of India 2. National School Games 3. All India Music Competition

**Step 3: Importance of these competitions.**

These competitions bring together talents from across the country, assess their skills, and promote excellence at the national level.

### Quick Tip

Remember: National competitions provide a great platform for athletes, artists, and people from educational sectors to showcase their talents.

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**13. Explain the barriers to women's participation in sports in India.**

**Solution:**

**Step 1: Analyzing the question.**

This question is asking about the barriers that hinder women from participating in sports in India. It aims to understand what challenges women face in the sports sector.

**Step 2: Barriers to women's participation in sports.**

There are several barriers that women face when participating in sports in India: 1. (D)Social and cultural norms:(D) Traditional gender roles and societal pressures often restrict women

from participating in sports. 2. (D)Lack of resources and finances:(D) Women may not have access to the same facilities, training, or financial support that male athletes receive. 3. (D)Lack of physical training and mentorship:(D) The shortage of specialized coaching for women can prevent them from reaching their full potential in sports.

**Step 3: Solutions.**

To overcome these barriers, it is essential for government programs, educational institutions, and sports organizations to create suitable opportunities for women to participate in sports.

**Quick Tip**

Remember: To enhance women's participation in sports, improvements in social attitudes, resources, and specialized training programs are essential.

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**14. What are infectious diseases? Explain the reasons for the spread of these diseases.**

**Solution:**

**Step 1: Definition of infectious diseases.**

Infectious diseases are diseases that spread from one person to another through various means such as air, water, or physical contact. These diseases are caused by microorganisms like bacteria, viruses, fungi, or parasites that enter the body and cause harm.

**Step 2: Reasons for the spread of infectious diseases.**

Infectious diseases can spread due to various reasons such as: 1. (D)Contaminated air or water:(D) Diseases can spread through infected air or water. 2. (D)Contaminated objects and utensils:(D) Diseases can spread through contact with contaminated utensils, clothes, or other items. 3. (D)Contact with infected individuals:(D) Diseases can spread by coming into contact with infected individuals.

**Step 3: Prevention methods.**

To prevent the spread of these diseases, it is important to maintain hygiene, drink clean water, consume safe food, and wear masks.

### Quick Tip

Remember: To prevent infectious diseases, practicing healthy habits and maintaining cleanliness is essential.

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**15. What is the difference between arteries and veins? Explain any two differences.**

**Solution:**

**Step 1: Introduction to arteries and veins.**

Arteries and veins are both blood vessels in the body, but they have some important differences.

**Step 2: Differences.**

1. (D)Arteries:(D) Arteries carry blood away from the heart to the rest of the body. They have thick, elastic walls and are under high pressure. 2. (D)Veins:(D) Veins carry blood from the body back to the heart. They have thinner walls and are under low pressure.

**Step 3: Detailed explanation.**

Blood in arteries flows under high pressure, while blood in veins flows under low pressure and at a slower rate. Veins have one-way valves that prevent the blood from flowing backward.

### Quick Tip

Remember: Both arteries and veins are crucial for maintaining blood circulation, but they differ in structure and function.

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**16. Explain in detail, what the colours of the national flag indicate?**

**Solution:**

**Step 1: Introduction to the colours of the national flag.**

The national flag has three colours – saffron, white, and green. Each of these colours has a special meaning, representing India’s independence movement and unity.

### **Step 2: Meaning of the colours.**

- The saffron colour represents courage and sacrifice, symbolizing the sacrifices made during the freedom struggle.
- The white colour represents truth, peace, and self-reliance.
- The green colour represents prosperity, progress, and nature.

### **Step 3: Significance of the flag.**

The national flag is not just a symbol of identity but also represents the unity, integrity, and diversity of the country.

#### Quick Tip

The colours of the national flag represent India's deep-rooted culture, values, and its unity.

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## **17. Mention any two problems that hinder national unity and their solutions.**

### **Solution:**

#### **Step 1: Problems hindering national unity.**

There are several problems hindering national unity, such as communalism, regionalism, casteism, and linguistic discrimination.

#### **Step 2: Solutions to the problems.**

- Communalism: To eliminate communalism, we must promote religious and social harmony.
- Regionalism and casteism: Equal rights must be ensured for all citizens, with equal opportunities for everyone.
- Linguistic discrimination: Regional languages should be given respect, and the spirit of national unity should be strengthened.

#### **Step 3: Impact of the solutions.**

Implementing these solutions will foster an environment of unity, equality, and peace in India, which will contribute to the overall development of the country.

### Quick Tip

To promote national unity, we must provide equal opportunities and respect for every segment of society.

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## 18. Differentiate between the three types of spinal deformity.

### Solution:

#### Step 1: Introduction to Spinal Deformities.

Spinal deformities refer to abnormalities in the shape or curvature of the spine, which can cause a variety of health problems, including discomfort, pain, and mobility issues. These deformities can result from various factors, including genetic conditions, poor posture, injury, or diseases.

#### Step 2: Types of Spinal Deformities.

There are three main types of spinal deformities:

##### 1. Kyphosis:

- Kyphosis is characterized by an excessive outward curve of the upper back, leading to a rounded or hunched appearance. It can be caused by poor posture, osteoarthritis, or conditions such as Scheuermann's disease.

- Symptoms: Rounded shoulders, back pain, stiffness, and fatigue.

##### 2. Scoliosis:

- Scoliosis is an abnormal lateral or side-to-side curvature of the spine, which may occur in an S or C shape. It is often detected during childhood or adolescence, though it can also develop in adults.

- Symptoms: Uneven shoulders or hips, back pain, difficulty breathing in severe cases.

##### 3. Lordosis:

- Lordosis refers to an excessive inward curve of the lower back. This condition can be caused by obesity, osteoporosis, or musculoskeletal conditions.

- Symptoms: Lower back pain, muscle spasms, and a prominent arch in the lower back.

#### Step 3: Comparison and Diagnosis.

- Kyphosis, scoliosis, and lordosis each have distinct curvatures and causes, but all affect the

spinal column and can lead to discomfort and mobility issues.

- Early diagnosis and treatment are important to prevent the progression of these deformities, which may require physical therapy, bracing, or surgery depending on the severity.

#### Quick Tip

Spinal deformities can significantly affect a person's quality of life, so it's essential to seek medical attention if you notice any abnormal spinal curvatures or experience related symptoms.

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### 19. What is a balanced diet? Mention its importance also.

#### Solution:

#### Step 1: Definition of a Balanced Diet.

A balanced diet is one that provides all the necessary nutrients required for proper growth, development, and health in the right amounts. It includes a variety of foods from different food groups, such as carbohydrates, proteins, fats, vitamins, minerals, and water.

#### Step 2: Components of a Balanced Diet.

The major components of a balanced diet are:

1. **Carbohydrates:** Provide energy for the body. Sources include rice, bread, pasta, and fruits.
2. **Proteins:** Build and repair body tissues. Sources include meat, eggs, beans, and legumes.
3. **Fats:** Provide energy and support cell function. Sources include nuts, oils, and fatty fish.
4. **Vitamins and Minerals:** Essential for various body functions such as immunity and bone health. Sources include vegetables, fruits, dairy, and meats.
5. **Water:** Vital for maintaining hydration and proper functioning of bodily systems.

#### Step 3: Importance of a Balanced Diet.

A balanced diet is crucial for:

- **Energy:** It provides the necessary fuel for daily activities.
- **Growth and Development:** Supports proper development of bones, muscles, and tissues, especially in children and adolescents.

- **Immune System Function:** A balanced diet strengthens the immune system to fight off diseases.
- **Prevention of Diseases:** Helps in preventing nutritional deficiencies, obesity, heart diseases, and other lifestyle-related illnesses.

**Step 4:** Conclusion.

Maintaining a balanced diet is the foundation of good health. It is important to consume a variety of foods from all food groups to meet the body's nutritional needs.

**Quick Tip**

Remember: A balanced diet contributes significantly to overall health, boosting energy, immunity, and reducing the risk of chronic diseases.

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**20. A male student performed the Harvard Step Test for 4 minutes. His pulse was recorded during the recovery periods as 58 beats in the first half-minute, 50 beats in the second, and 42 beats in the third. Using the Harvard Step Test formula, calculate his Fitness Index and state whether his score falls in the Excellent, Good, or Average category.**

**Solution:**

**Step 1:** Harvard Step Test Formula.

The Fitness Index is calculated using the following formula:

$$\text{Fitness Index} = \frac{100 \times \text{duration of the step test (in seconds)}}{\text{pulse rate (in beats per minute)} \times \text{recovery time (in seconds)}}$$

**Step 2:** Calculate the Average Pulse Rate.

The pulse rates during the recovery periods were:

- First half-minute: 58 beats
- Second half-minute: 50 beats
- Third half-minute: 42 beats

The average pulse rate is:

$$\text{Average Pulse Rate} = \frac{58 + 50 + 42}{3} = 50 \text{ beats per minute}$$

**Step 3:** Apply the Formula.

Now, substitute the given values into the formula: - Duration of the test = 240 seconds (4 minutes) - Average pulse rate = 50 beats per minute - Recovery time = 3 minutes = 180 seconds

$$\text{Fitness Index} = \frac{100 \times 240}{50 \times 180} = \frac{24000}{9000} = 2.67$$

**Step 4:** Evaluate the Fitness Index.

Using the Fitness Index categories: - Excellent: 85 or above

- Good: 65-84

- Average: Below 65

The student's Fitness Index of 2.67 falls in the **Average** category.

#### Quick Tip

A higher Fitness Index indicates better cardiovascular fitness. Regular exercise and proper physical activity improve this index.

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**21. Enlist any four types of fracture.**

**Solution:**

**Step 1: Types of fractures.**

Fractures are breaks or cracks in bones caused by trauma or overuse. The four common types of fractures are:

**Step 2: Types of fractures.**

1. **Closed Fracture:** The bone breaks but does not puncture the skin.
2. **Open Fracture:** The bone breaks and protrudes through the skin.
3. **Comminuted Fracture:** The bone is shattered into three or more pieces.
4. **Greenstick Fracture:** The bone bends and cracks but does not break completely, common in children.

### Quick Tip

Fractures are categorized based on the extent of the break and whether the skin is involved. Prompt treatment is essential to prevent complications.

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## 22. Write a short note on Sports Psychology.

### Solution:

#### Step 1: Introduction to Sports Psychology.

Sports psychology is the study of mental and emotional factors that affect performance in sports. It involves understanding how psychological factors influence athletic performance and using mental techniques to enhance performance.

#### Step 2: Key aspects of sports psychology.

1. **Mental Training:** Techniques such as visualization, relaxation, and focus training.
2. **Motivation:** How athletes stay motivated and focused on their goals.
3. **Stress Management:** Coping with pressure and maintaining composure during competition.

#### Step 3: Importance.

Sports psychology plays a critical role in helping athletes perform at their best, manage stress, and recover from setbacks.

### Quick Tip

Sports psychology is essential in enhancing performance by training the mind, just as physical training enhances the body.

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## 23. A football player wants to improve his acceleration and quick reaction during a match. Suggest two suitable training methods and justify how each will help improve his performance.

### Solution:

### **Step 1: Training Methods.**

To improve acceleration and quick reaction, the following two training methods can be used:

### **Step 2: Training Method 1 - Plyometric Training.**

Plyometric exercises, such as box jumps and bounding, enhance explosive strength and improve quick reaction times. These exercises train the muscles to generate force rapidly, thus increasing acceleration.

### **Step 3: Training Method 2 - Sprint Drills.**

Sprint drills, such as 10m sprints or shuttle runs, focus on improving speed and agility. Regular sprinting builds fast-twitch muscle fibers and helps improve a player's ability to quickly change direction and accelerate.

### **Step 4: Justification.**

Both methods work on improving the player's power, speed, and agility, allowing for better performance during the game.

#### Quick Tip

To improve reaction time and acceleration, incorporate plyometric exercises and sprint drills into regular training routines.

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## **24. League tournament is a better way to judge the best team of the tournament.**

### **Comment.**

#### **Solution:**

**Step 1:** Introduction to league tournaments.

League tournaments are structured in such a way that each team plays multiple games against different opponents. This structure allows teams to demonstrate consistency, adaptability, and overall performance over time, unlike knockout formats where a single loss could eliminate a team.

**Step 2:** Advantages of League Tournaments.

- **Consistency:** League formats reward teams for sustained performance rather than just a few good games.

- **Fairness:** All teams get an equal opportunity to compete against various opponents, giving a better overall judgment of their capabilities.
- **Predictive of True Strength:** A single match may not reflect a team's true potential, but a league tournament allows for a more comprehensive assessment.

**Step 3:** Conclusion.

A league tournament is indeed a better method to judge the best team, as it provides a thorough assessment based on consistency and performance over time.

**Quick Tip**

League tournaments help to identify the most consistent and adaptable team, rather than one that just performs well in a single game.

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**25. Discuss the exercise guidelines for different age groups.**

**Solution:**

**Step 1:** Exercise guidelines for children (6-17 years).

- **Frequency:** Children should engage in at least 60 minutes of moderate to vigorous physical activity every day.
- **Type:** A mix of aerobic exercises, muscle-strengthening activities, and bone-strengthening exercises such as running, swimming, and playing sports.
- **Benefits:** Improves cardiovascular health, strengthens bones and muscles, and promotes overall growth and development.

**Step 2:** Exercise guidelines for adults (18-64 years).

- **Frequency:** Adults should aim for at least 150 minutes of moderate-intensity exercise or 75 minutes of vigorous-intensity exercise per week, along with muscle-strengthening activities on two or more days.
- **Type:** Activities like walking, jogging, cycling, weight training, and flexibility exercises such as yoga.
- **Benefits:** Reduces the risk of chronic diseases such as heart disease, diabetes, and obesity, and improves mental health and fitness.

**Step 3:** Exercise guidelines for older adults (65+ years).

- **Frequency:** 150 minutes of moderate-intensity exercise per week, focusing on activities that improve balance and flexibility.

- **Type:** Walking, swimming, stretching, and balance exercises to prevent falls and enhance mobility.

- **Benefits:** Improves strength, balance, and flexibility, reducing the risk of falls and enhancing independence.

**Step 4:** Conclusion.

Exercise is beneficial for all age groups, and it is important to tailor physical activities to the capabilities and needs of each age group for maximum benefit.

#### Quick Tip

Physical activity should be adapted to the individual's age, ability, and fitness level to promote health and well-being.

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## 26. Explain strategies to make Physical Activities Accessible for CWSN.

### Solution:

**Step 1:** Understanding CWSN (Children With Special Needs).

CWSN refers to children who have physical, intellectual, or sensory disabilities. Ensuring accessibility to physical activities for these children is important for their physical, emotional, and social development.

**Step 2:** Strategies for making physical activities accessible.

1. **Adapted equipment:** Provide equipment that is modified to suit the specific needs of CWSN, such as wheelchair-accessible playgrounds, adaptive sports gear, and assistive technology.

2. **Inclusive programs:** Design physical activity programs that can include children with disabilities, ensuring that activities are accessible and safe for all participants.

3. **Trained instructors:** Train instructors and coaches in working with children with disabilities, ensuring that they can provide the necessary support and instruction.

4. **Physical environment adjustments:** Modify physical spaces to ensure they are accessible for children with mobility issues, such as ramps, widened doorways, and sensory-friendly environments.

5. **Supportive community:** Encourage a supportive and inclusive community that promotes acceptance and participation in physical activities for CWSN.

**Step 3:** Conclusion.

Making physical activities accessible to CWSN not only enhances their physical health but also promotes social inclusion and builds self-esteem. It is essential to implement these strategies to provide equal opportunities for all children.

#### Quick Tip

Creating an inclusive environment for CWSN in physical activities fosters self-confidence and a sense of belonging.

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## 27. Discuss the importance of pre, during and post competition diet in detail.

**Solution:**

### **Step 1: Importance of Pre-Competition Diet.**

The pre-competition diet is essential to fuel the body, ensuring that energy stores are optimal. It should include a balanced mix of carbohydrates, proteins, and fats to maintain energy levels and ensure proper muscle function. The timing of the pre-competition meal should be well-planned to avoid discomfort during the competition.

### **Step 2: Importance of Diet During the Competition.**

During the competition, staying hydrated is crucial to maintain performance. Small, easy-to-digest snacks and fluids should be consumed to replenish energy stores and prevent fatigue. The goal is to avoid dehydration and maintain stamina throughout the event.

### **Step 3: Importance of Post-Competition Diet.**

After the competition, the body requires protein and carbohydrates to repair muscles and replenish glycogen stores. A post-competition meal should focus on recovery, providing the nutrients necessary to reduce muscle soreness and promote recovery for the next event.

### Quick Tip

Proper nutrition before, during, and after a competition is crucial for maintaining performance and ensuring recovery.

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**28. A gymnast maintains a handstand position on the balance beam, then performs a flip. Differentiate between the types of equilibrium shown and explain how they help in performance.**

**Solution:**

**Step 1: Types of Equilibrium.**

There are three types of equilibrium: static, dynamic, and neutral. In the handstand position on the balance beam, the gymnast is in a state of static equilibrium. During the flip, the gymnast moves into dynamic equilibrium as they change position.

**Step 2: Importance of Equilibrium in Performance.**

Static equilibrium helps the gymnast maintain stability and balance while holding the handstand. Dynamic equilibrium helps them control their movements and maintain balance during the flip, preventing falls or loss of control. Both are essential for performing complex gymnastic movements safely.

### Quick Tip

Maintaining proper equilibrium is critical for gymnasts to perform complex maneuvers while ensuring their safety and precision.

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**29. Describe personality. Explain dimensions of personality.**

**Solution:**

**Step 1: Definition of Personality.**

Personality refers to the characteristic patterns of thoughts, feelings, and behaviors that make a person unique. It is influenced by both genetic and environmental factors.

### Step 2: Dimensions of Personality.

There are several dimensions of personality, including: 1. **Openness to Experience:** Describes the extent to which a person is open-minded and curious. 2. **Conscientiousness:** Refers to a person's level of self-discipline, organization, and responsibility. 3. **Extraversion:** Describes how outgoing and sociable a person is. 4. **Agreeableness:** Indicates how cooperative, kind, and trusting a person is. 5. **Neuroticism:** Reflects a person's tendency to experience negative emotions such as anxiety, depression, or anger.

### Step 3: Importance of Personality.

Understanding these dimensions helps in understanding behavior and predicting how individuals will respond to different situations. It also plays a key role in personal development and interpersonal relationships.

#### Quick Tip

Personality dimensions provide a framework to understand individual behavior and improve interactions with others.

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### 30. What do you mean by Asthma. Mention its symptoms. Explain the procedure, benefits and contraindications of an asana beneficial for the patient of arthritis.

#### Solution:

#### Step 1: Introduction to Asthma.

Asthma is a chronic respiratory condition that causes inflammation and narrowing of the airways, making it difficult to breathe. It can be triggered by various factors such as allergens, infections, and environmental pollutants.

#### Step 2: Symptoms of Asthma.

The common symptoms of asthma include: 1. Shortness of breath 2. Wheezing 3. Coughing, especially at night or early in the morning 4. Tightness in the chest

#### Step 3: Asana beneficial for Arthritis patients.

For arthritis patients, the **Tadasana (Mountain Pose)** is beneficial. The procedure involves standing tall, with feet together, and arms at the sides. Inhaling deeply, the arms are raised

overhead with palms facing each other. The benefits include improved posture, increased flexibility, and relief from joint pain. However, patients with severe arthritis should avoid overextending or forcing the posture.

**Step 4: Contraindications.**

Arthritis patients should avoid asanas that put excessive pressure on the joints, such as deep twists or inversions. Always consult a healthcare professional before beginning any yoga practice.

**Quick Tip**

Tadasana is a gentle asana that helps arthritis patients by improving posture and relieving stress without putting excessive strain on the joints.

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**31. Make a table of test items listed under fitness test by SAI (Age group 9-18 yrs)**

**Explain the Procedure and Scoring of 50 MTS Run and Partial Curl Up.**

**Solution:**

**Step 1: Table of Test Items for Fitness by SAI (Age group 9-18 yrs).**

Test Item	Description
50 MTS Run	Measures speed and endurance
Partial Curl Up	Measures core strength and endurance
Shuttle Run	Tests agility and speed
Standing Broad Jump	Tests leg power and coordination

**Step 2: Procedure and Scoring of 50 MTS Run.**

In the 50 MTS Run, the participant runs as fast as possible over a distance of 50 meters. The time taken to complete the run is recorded in seconds. Scoring is based on the fastest time.

**Step 3: Procedure and Scoring of Partial Curl Up.**

The partial curl up involves the participant lying on their back with knees bent and feet flat. They are then asked to curl their torso upward to a 30-degree angle. The number of curl-ups performed within a set time (usually 1 minute) is counted. Scoring is based on the number of curl-ups completed.

### Quick Tip

To improve performance in these tests, focus on improving speed for the 50 MTS Run and core strength for the Partial Curl Up.

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**32. What do you understand by circuit training? How will a coach plan circuit training sessions with 6 stations to develop the fitness of his new trainees? Explain.**

#### **Solution:**

##### **Step 1: Definition of Circuit Training.**

Circuit training is a type of exercise that involves a series of exercises performed in rotation, with minimal rest in between. It combines aerobic and resistance training, making it an effective way to improve overall fitness.

##### **Step 2: Circuit Training with 6 Stations.**

A coach can plan a circuit training session with the following six stations:

1. **Station 1: Jump Rope** – Focuses on cardiovascular fitness and agility. 2. **Station 2: Push-ups** – Builds upper body strength. 3. **Station 3: Squats** – Develops leg strength and endurance. 4. **Station 4: Plank** – Targets core stability. 5. **Station 5: Burpees** – Increases overall strength and cardiovascular endurance. 6. **Station 6: Mountain Climbers** – Improves coordination, strength, and cardiovascular health.

##### **Step 3: Planning the Session.**

The coach should plan the session by ensuring that each station is set up with the appropriate equipment. Each trainee should spend 1-2 minutes at each station, performing the exercise to the best of their ability, followed by a 30-second rest before moving on to the next station. This process helps in building strength, endurance, and agility.

### Quick Tip

Circuit training can be adapted for beginners and advanced athletes by adjusting the intensity and duration of each exercise.

### 33. What is a lever? Discuss the application of Lever in sports.

#### Solution:

#### Step 1: Definition of Lever.

A lever is a simple machine consisting of a rigid bar that pivots around a fixed point called the fulcrum. The effort applied to one end of the bar causes a force on the other end.

#### Step 2: Types of Levers.

There are three types of levers: 1. **First Class Lever:** The fulcrum is between the effort and the load (e.g., a seesaw). 2. **Second Class Lever:** The load is between the fulcrum and the effort (e.g., a wheelbarrow). 3. **Third Class Lever:** The effort is between the fulcrum and the load (e.g., a baseball bat).

#### Step 3: Application of Lever in Sports.

In sports, levers are used in activities like throwing, lifting, and hitting. For example:

- A **baseball bat** uses a third-class lever to generate force and hit the ball.
- In **lifting weights**, the arms act as levers to lift the load.
- In **rowing**, the oars are used as levers to propel the boat.

#### Quick Tip

Levers are essential in sports to enhance performance by maximizing the force and movement efficiency.