



PHYSICAL EDUCATION (373)

CHAPTERWISE NOTES



PHYSICAL EDUCATION

Sl. No.	Module	Chapters (Public Examination)	Marks
1	Module 3 : Holistic Health	L-10 Diet and Nutrition L-12 School Health Programme	14
2	Module 4 : Physical Education and Sports Sciences	L-14 Sports Training L-16 Organization of Tournament L-17 Athletic Injuries, First Aid and Safety	16
3	Module 1 : Concept of Physical Education and Yog	L-1 Introduction and Historical Development L-2 Ethics and Values	10

Component	Details	Marks
Public Exam (Selected Modules 3, 4)	Total Chapters : 5	30
Practical Exam	Practical	30
TMA	Tutor Marked Assignment	14
Final Possible Marks		74 Marks

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1

Introduction and Historical Development

Introduction

Physical Education is made up of two words – **Physical** and **Education**. It means making the body healthy and strong through games and physical activities. On the other hand, **Yoga** is an ancient practice that helps a person live a good and happy life by making the body and mind calm, balanced, and healthy.



Physical Education

Meaning

Physical : It refers to the body and shows strength, movement, endurance, flexibility, and health.

Education : It means systematic instruction, training, or preparation for life.

Importance

Participation in physical activities leads to the **overall development** of a person.

- **Intellectual Development** : Taking decisions in games improves thinking ability.
- **Social Adjustment** : Qualities like sportsmanship, cooperation, honesty, and self-discipline develop.
- **Emotional Development** : Sports help in controlling emotions.
- **Proper Use of Leisure Time** : It keeps children away from non-productive activities.
- **Economic Value** : Professional sports provide better career opportunities.

Historical Development of Physical Education

Ancient Period

- The **Vedas** mention archery and horse riding.
- In **Gurukuls**, fitness training was given up to the age of 25 years.
- At **Nalanda University**, swimming and yoga were part of the daily routine.



Medieval Period

- Horse riding, spear throwing, and wrestling were popular among the **Rajputs**.
- During the rule of Muslim kings, boxing, polo, and shooting were played.

Modern Period

- In **1882**, the Indian Education Commission recommended physical training in school education.
- In **1920**, H. C. Buck established the **YMCA College** in Madras.

After Independence

- **NCC** started in **1948**.
- In **1973**, **Netaji Subhas National Institute of Sports (NSNIS)** was established in Patiala.
- In **2018**, **CBSE** made Physical Education a compulsory subject.

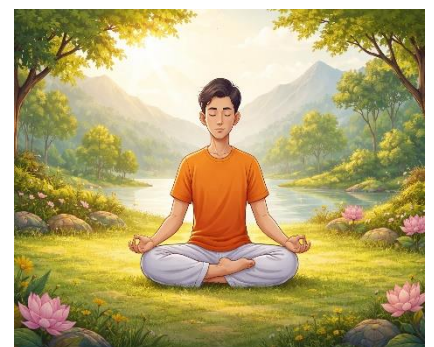
Concept of Yoga

- The word **Yoga** is derived from the Sanskrit word “**Yuj.**”
- It means to **join, connect, or focus the mind**.
- In the **Bhagavad Gita**, emphasis is given on **Karma Yoga** (doing work without expecting the result).

Historical Development of Yoga

Lord Shiva is considered the founder of Yoga.

- **Pre-Vedic Period** : Special yogic postures were found on the seals of the Indus Valley Civilization.
- **Epic Period** : Vishwamitra taught yoga to Ram and Lakshman, and Krishna taught it to Arjun.
- **Sutra Period** : Around 147 B.C., Patanjali explained the eight limbs of yoga in the book *Yoga Sutra*.
- **Modern Period** : International Yoga Day is celebrated on 21 June (declared in 2014).



Need and Importance of Yoga

- **Purification of Body Organs** : Practices like Jal Neti and Kapal Bhati clean the body organs.
- **Prevention of Diseases** : It protects from problems like blood pressure, cholesterol, and migraine.
- **Reduction of Stress** : Deep breathing reduces stress and mental fatigue.
- **Improvement of Posture** : Asanas like Vajrasana and Bhujangasana improve body posture.
- **Reduction of Obesity** : Yoga and Pranayama help in reducing obesity.

TOP 5 QUESTIONS

Q1. What is the meaning of Physical Education?

Ans - Physical Education is mainly a combination of the words 'physical' (body) and 'education' (learning). It is a science that develops a person completely (physical, mental, social, and emotional) through physical activities and sports.

Q2. Explain the origin and meaning of the word Yoga.

Ans - The word Yoga originates from the Sanskrit word "Yuj." Its main meaning is to join, connect, or focus the mind. It is a deep experience of unity with the inner self of a human being.

Q3. What is the contribution of YMCA and NCC in the development of Physical Education?

Ans - In 1920, the YMCA College of Madras, established by H. C. Buck, became an important center of modern physical education in India. After independence, NCC was started in 1948 by an act of Parliament to develop physical discipline among youth.

Q4. What was the contribution of Maharishi Patanjali in the history of Yoga?

Ans - During the Sutra period, Maharishi Patanjali gave Yoga its present literary form. Around 147 B.C., he wrote the book Yoga Sutra, in which he explained the eight important limbs of yoga, including Yama, Niyama, Asana, and Pranayama.

Q-5. What is the importance of Yoga in modern daily life?

Ans - In modern life, yoga provides physical and mental well-being. It reduces stress and fatigue and protects from diseases. Regular practice of yoga also helps in improving body posture and reducing obesity.



2

Ethics and Values

Introduction

Ethics and values are very important in Physical Education. Values are personal standards that guide a person's behavior in the right direction. On the other hand, ethics is a group of moral principles that clearly show the difference between right and wrong in our actions.



Meaning of Sportsmanship

Sportsmanship is the behavior of showing respect for the rules of the game and other players.

- It includes fairness, morality, self-control, and brotherhood.
- Its aim is not only to win, but to give the best effort.
- **Example:** Shaking hands with opponents after the match.

Ethics in Sports

There are mainly **four ethics in sports** :

- **Fairness** : Players and coaches should follow the rules of the game.
- **Honesty** : One should always avoid unfair advantage or cheating.
- **Responsibility** : A person should take responsibility for his actions both on and off the field.
- **Respect** : Players should respect officials, opponents, and teammates.



Olympic Values

There are **three main values of the Olympic Games**:

- **Friendship**: Using sports as a way to increase mutual understanding and friendship.
- **Respect**: Respecting the body, rules, opponents, and the environment.



- **Excellence:** Focusing on giving the best performance, not only on winning.

Educational Themes of Olympism

- **Joy of Effort :** Performing physical activities with full energy and enjoyment.
- **Fair Play :** Following the rules of sports and applying them in life.
- **Respect for Others :** Respecting everyone including women, children, and persons with disabilities.
- **Pursuit of Excellence :** Making continuous efforts to improve one's abilities.
- **Balance in Life :** Maintaining balance between body, will, and mind.



Yoga and Ethics

- Yoga is a process of self-purification.
- It includes purification of body, mind, soul, speech, and thoughts.
- The practice of yoga is a powerful way to develop ethics and build strong character.

TOP 5 QUESTIONS

Q1. What do you understand by sportsmanship?

Ans - Sportsmanship is a behavior and attitude in which the rules of the game and other players are respected. It includes fairness, self-control, courage, and a feeling of brotherhood with opponents. Its aim is not only to win but to give the best effort.

Q2. What are the four main ethics in sports?

Ans - The four main ethics in sports are:

1. **Fairness** – Following the rules of the game honestly.
2. **Honesty** – Staying away from any kind of cheating.
3. **Responsibility** – Taking responsibility for one's behavior and actions.
4. **Respect** – Respecting referees, teammates, and opponent players.



Q3. What are the three main values of the Olympic Games?

Ans - The three main values of the Olympic Games are **Friendship, Respect, and Excellence**. Their main aim is to promote global brotherhood through sports, respect rules and people, and move forward by giving the best performance beyond winning and losing.

Q-4. What is the difference between values and ethics?

Ans - Values are personal standards and beliefs that guide a person's daily decisions and behavior in the right direction. On the other hand, **ethics** is a group of universal moral principles that clearly show the difference between right and wrong in our actions.

Q5. How does yoga help in developing ethics?

Ans - Yoga is basically a process of self-purification which includes purification of the body, mind, soul, and thoughts. Regular practice of yoga naturally develops ethics in a person and helps in building strong character.



3

Diet and Nutrition

Introduction

Diet is the food that we take for our life and survival. On the other hand, nutrition is the science that studies the usage and digestion of food by our body. Proper diet and nutrition are very essential for our good health.

Functions of Food

- **Energy:** To provide power to the body to perform work.
- **Growth and Development:** To develop the body and increase the cells.
- **Repair:** To heal the damaged tissues when injured.
- **Protection :** To protect the body from illnesses and germs.



Types of Nutrients

1. **Macronutrients : Required in large amounts.**

- **Carbohydrates :** It is the major source of energy (1 gram = 4 calories of energy). Wheat, rice, potatoes, sugar.
- **Fats :** It maintains body temperature and protects the organs (1 gram = 9 calories of energy). Fats are of two types - saturated (solid) and unsaturated (oils).
- **Proteins :** Helps to build, maintain, and repair muscles (1 gram = 4 calories of energy). Proteins are made up of 22 amino acids (8 from food and 14 produced by the body). Milk, eggs, pulses, soybeans.

2. **Micronutrients : Required in small amounts**

- **Vitamins:** There are a total of 13 types and they are essential for chemical processes. Fat-soluble vitamins: Vitamin A, D, E, K. Water-soluble vitamins: Vitamin B (B-complex) and C.
- **Minerals:** The body requires 19 minerals. Major minerals: Calcium, potassium, sodium, etc..
Trace minerals : Iron, zinc, iodine, etc..
- **Water:** About two-thirds of our body weight is water. It helps in temperature control and digestion; we should drink 6 to 8 glasses of water daily.



Balanced Diet

- A balanced diet is the food and drink that contains the appropriate blend of all nutrients required by the body.
- It provides nutrition and energy for the maintenance of body organs.
- It helps in the normal growth and development of an individual.
- A proper balanced diet depends on the age, gender, weight, and physical activity level of the individual.

Yogic Concept

In Yog, the diet focuses on the type and quality of food rather than the calorie count.

- **Sattvic Diet** : Light for digestion, helps in calming down the mind (e.g., fresh fruits, green vegetables, milk).
- **Rajasic Diet** : Stimulates the body and makes the mind restless (e.g., spicy food, tea, coffee).
- **Tamasic Diet** : Heavy for digestion, increases laziness and anger (e.g., stale food, alcohol, junk food).



Mitahara

In Yog, a balanced diet is based on the concept of Mitahar, which depends on 3 factors:

1. **Quality of food** : Food should be sattvic and in its natural form.
2. **Quantity of food** : The stomach should be filled 50% with food, 25% with liquid (water), and the rest 25% should be kept empty for the free flow of air.
3. **State of mind** : While taking food, the mind should be in a state of peace and you should not be engaged in intense thinking.

TOP 5 QUESTIONS

Q-1. What is the difference between diet and nutrition?

Ans - Diet is the sum of the food consumed by us for our survival. On the other hand, nutrition is a science in which the process of food intake and its utilization by our body is studied.

Q-2. What are the main functions of food?



Ans - Food mainly performs four important functions in our body: providing energy, helping in growth and development, repairing worn-out tissues, and protecting us from illnesses.

Q-3. What is the difference between macronutrients and micronutrients?

Ans - Macronutrients (carbohydrates, fats, proteins) are required by the body in large amounts and are the main source of energy. Whereas micronutrients (vitamins, minerals) are required by the body in small amounts.

Q-4. Why is the Sattvic diet considered the best diet in Yog?

Ans - The Sattvic diet (like fresh fruits and vegetables) is light for digestion. It helps in keeping our body healthy and calming down the mind, hence it is considered the best diet according to the yogic concept.

Q-5. What is the concept of Mitahara?

Ans - Mitahara is the concept of a balanced diet in Yog. According to this, the stomach is divided into three parts: 50 percent should be filled with food, 25 percent with liquid, and the remaining 25 percent should be kept empty for the free flow of air.



4

School Health Programme

Introduction

The School Health Programme is a community-based program implemented across the country that specifically focuses on the health and nutrition of school children aged 5 to 17 years. Its main objective is to improve the health of children, reduce the risk of diseases, and ensure their overall development.



Concept

W.H.O. Definition : "An effective school health programme can be one of the most cost-effective investments for a nation to simultaneously improve both education and health".

4 Main Pillars : Teaching and learning, social and physical environment, school health policy, and health services.

Main Aspects of School Health Programme

1. School Health Services

- **Regular check-up :** Conducting periodic medical and dental check-ups of children.
- **Prevention of malnutrition :** Providing 'Mid-day meal' to increase the nutritional level of children.
- **Deworming programme :** Under this, 'Albendazole' and iron tablets are given to children for health improvement.
- **Mental health :** Provision of counselors in schools for drugs, career, and mental stress.
- **Special children :** Educating and helping children with special needs.
- **Health record :** Preparing the health record and medical history of each child.

2. Healthful School Environment

- There should be adequate sanitation and safe drinking water in the school.
- There should be separate toilets for girls and boys so that the safety and privacy of girls are maintained.
- The school should be away from the crowded market, and furniture should be according to the age of the children.
- There should be no corporal punishment or violence in the school.



- The 'Swachh Bharat Abhiyan' of the Government of India helps in ensuring this healthy environment of the school.

3. Health Education

- Its goal is to bring beneficial changes in children's health knowledge, mindset, and their behavior.
- A daily morning inspection of children should be done to identify the symptoms of diseases at an early stage.

Organization of School Health Programme

- Every school should have a 'Health Council' and a 'Health Committee'.
- This committee includes the school head, medical doctor, health coordinator, teachers, students, and parents (SMC).
- **Health Coordinator** : This is the most important and responsible person to implement this entire program in the school (who can be the principal or the physical education teacher).

TOP 5 QUESTIONS

Q-1. What is the School Health Programme and what is its main objective?

Ans - The School Health Programme is an important scheme mainly focused on the health and nutrition of school children aged 5-17 years. Its core objective is to improve children's health, prevent communicable diseases, and enhance education.

Q-2. How has the World Health Organization (W.H.O.) defined the School Health Programme?

Ans - According to the World Health Organization, "An effective school health programme can prove to be the most cost-effective and excellent investment made by any nation to simultaneously improve both education and health".

Q-3. What are the three main aspects of the School Health Programme?

Ans - The School Health Programme is mainly based on three important aspects:

1. School Health Services,



2. Healthful and safe school environment
3. Health education provided in the school.

Q-4. What are the main functions of school health services?

Ans - The main functions of these services are to conduct regular medical check-ups and immunization of children, provide mid-day meals to overcome malnutrition, give Albendazole tablets for deworming, and provide first aid and emergency care.

Q-5. What is the role of the 'Health Coordinator' in the organization of the School Health Programme?

Ans - The 'Health Coordinator' is the most important and responsible person to smoothly implement any school health programme in the school. This special responsibility is usually given to the principal or the physical education teacher of the school.



5

Sports Training

Introduction

Sports training is the systematic preparation of players based on scientific principles for the best performance in competitions. Its main goal is to help the player reach their highest level by developing their physical, mental, and technical abilities.



Meaning of Sports Training

- It is a process of systematically preparing a player or a team to perform well in sports competitions.
- It includes physical conditioning, psychological training, skill training, and sports strategy training.

Principles of Sports Training

- **Principle of Individual Difference:** Every player is different, so training should be according to the capacity of each individual.
- **Principle of Overload :** An athlete should not be given a load or stress greater than their capacity.
- **Principle of Recovery :** There should be a proper ratio of rest and recovery between exercises and workouts.
- **Principle of Continuity :** If an athlete stops training, their fitness level begins to decrease.
- **Principle of Specificity :** Every sport has its own distinct demands, so the training should be specifically tailored to that sport.

Physical Fitness and its Components

Physical fitness is the ability to do day-to-day tasks easily without any excessive fatigue.

- **Strength :** The ability of muscles to overcome resistance. It is of three types - maximum strength, strength endurance, and explosive strength.
- **Endurance :** The ability to continue working even in a state of fatigue (e.g., running continuously for 15 minutes).
- **Speed :** The ability to cover a distance or complete a task in the minimum possible time.
- **Flexibility :** The ability to bend joints to their full range of motion (active and passive flexibility).
- **Coordinative Abilities :** The ability to perform activities quickly and with better quality (e.g., balance, rhythm, and reaction).



Aerobic and Anaerobic Exercises

1. Aerobic Exercises

- These are performed in the presence of oxygen.
- These can be done for a long time (more than 2 minutes).
- These improve the cardiovascular system.
- **Example :** Slow and continuous running or jogging.

2. Anaerobic Exercises

- These are performed without a continuous supply of oxygen.
- These are done for a very short time (from a few seconds to 2 minutes).
- Lactic acid is formed in the body which causes early fatigue.
- **Example:** 100-meter fast sprint.

Note: Maximum Heart Rate (MHR) = 220 - your age.

TOP 5 QUESTIONS

Q-1. What is the meaning of sports training?

Ans - Sports training is a systematic and scientific process of preparing any player or team for excellent performance in sports competitions. It involves the development of physical conditioning, mental training, skills, and sports strategy.

Q-2. What is physical fitness and what are its main components?

Ans - Physical fitness is the ability to easily perform day-to-day tasks without any excessive fatigue. Its main components mainly include strength, endurance, speed, flexibility, and coordinative abilities.

Q-3. What are aerobic exercises?

Ans - Aerobic exercises are activities that are performed with a continuous supply of oxygen and last for a long time. In these, glucose and fats are used for energy, such as slow and continuous running or jogging.

Q-4. What are anaerobic exercises?



Ans - Anaerobic exercises are activities that are performed for a very short time without a continuous supply of oxygen. In these, lactic acid is formed in the body which causes fatigue, such as a 100-meter fast sprint.

Q-5. What are the principles of 'Overload' and 'Recovery' in sports training?

Ans - According to the 'Overload' principle, any athlete should not be given a load or stress greater than their physical capacity. On the other hand, the 'Recovery' principle ensures that proper rest and recovery time must be provided between exercises.



6

Organization of Tournament

Introduction

A tournament is a series of sports or matches organized to decide the winner of a competition. It is held over a short period of time and is an excellent medium to popularize sports and evaluate the performance of the players.



Importance of Tournament

- It provides an excellent opportunity to display the abilities and sports skills of the players.
- It is a powerful medium to make a particular sport popular.
- It motivates people towards sports and provides healthy entertainment.

Types of Tournaments

1. Knock-out Tournament

- In this, the defeated team is immediately eliminated from the tournament.
- A team continues to play only until it gets defeated.
- **Types:** Single knock-out, Double knock-out, Consolation, and Bagnall-Wild.

2. League or Round Robin Tournament

- In this, every team has to play a match with all other participating teams.
- Winning or losing does not matter; everyone gets equal opportunities.
- **Types:** Single League (playing once) and Double League (playing twice).

3. Combination Tournament

- It is a mixture of both knock-out and league systems.
- **Types:** Knock-out cum League, League cum Knock-out, etc.

4. Challenge Tournament

- In this, a lower-ranked player challenges a higher-ranked player.
- This happens in sports like wrestling, badminton, and table tennis (e.g., Ladder and Pyramid types).



Fixture

A fixture is a systematic schedule (program) of matches among the teams participating in a tournament.

- **Bye:** It is a privilege given to a team by which it reaches the second round directly without playing in the first round.
- **Seeding:** This is given to the previous year's winner or strong teams so that they do not face each other and get eliminated in the initial rounds of the tournament.

Intramural and Extramural

- **Intramural :** 'Intra' (within) and 'Murus' (wall). These are sports competitions that are organized entirely within the premises (walls) of a school or institution (e.g., Inter-Class or Inter-House).
- **Extramural :** These are competitions that are organized outside the walls of an institution with other outside teams (e.g., Inter-School, State, or National level).

TOP 5 QUESTIONS

Q-1. What do you understand by a tournament?

Ans - A tournament is mainly a systematic series of sports or matches, which is organized to decide the final winner of a sports competition. It evaluates the excellent performance and skills of the players.

Q-2. What is a knock-out tournament?

Ans - A knock-out tournament is an important sports competition in which any team gets eliminated from the tournament immediately after losing a match. In this, a team continues to play matches continuously until it gets defeated by someone.

Q-3. What are the advantages of a league tournament?

Ans - In a league tournament, every team gets a chance to play a match with all the other teams. Its biggest advantage is that not luck, but only a deserving and strong team becomes the actual winner of the tournament.

Q-4. What is the meaning of intramural sports competitions?

Ans - The word 'Intramural' is derived from the Latin language, which means 'within the wall'. These are all those sports competitions which are organized completely inside the boundary walls of the same school, college, or institution.



Q-5. What is the difference between 'Bye' and 'Seeding'?

Ans - 'Bye' is a special privilege given to a team by which it reaches the second round directly without playing. Whereas 'Seeding' is given to the strong winning teams of the previous year so that they do not clash with each other in the initial rounds.



7

Athletic Injuries, First Aid and Safety

Introduction

Participating in sports is a lot of fun, but sometimes there is a risk of getting injured due to carelessness. In this, we will mainly learn about first aid, ways to prevent injuries, and necessary safety precautions in school, which are very important for the exam.



Types of Sports Injuries

Injury : When the force applied on body parts exceeds their capacity, the cells and blood vessels break, which is called an injury.

Cell Necrosis : The damage or death of cells is called cell necrosis, due to which the flow of oxygen and nutrition in the body stops.

- **Contusion** : Getting injured by a blunt object, due to which a blue mark appears on the skin.
- **Abrasion** : Scraping and peeling of the uppermost layer of the skin.
- **Incision / Laceration** : Cutting or irregular tearing of the skin.
- **Strain** : Overstretching or tearing of muscles
- **Sprain** : Overstretching or tearing of ligaments present near the joints.

Bone Injuries

- **Close Fracture** : The bone breaks inside but does not come out of the skin.
- **Open Fracture** : The broken bone tears the skin and comes out.

Joint Injuries

- **Dislocation** : Bones slipping and separating from their joint.

Treatment for Simple Sports Injuries

Four steps (R.I.C.E.) are adopted for the immediate treatment of simple injuries:

- **Rest** : Stop playing immediately and give complete rest to the injured part.
- **Ice** : Apply ice on the affected area to reduce swelling and pain.



- **Compression:** Tie a cotton bandage on the injured area to prevent swelling.
- **Elevation :** Keep the injured part slightly elevated above the heart level.

First Aid

- The immediate help given to an injured person before the arrival of a doctor is called first aid.
- Its main objective is to save the person's life and prevent the condition from getting worse.
- **Rules:** Help immediately without panicking, call an ambulance quickly, and encourage the injured person.

Prevention of Sports Injuries

- **Physical Fitness :** It is very important for the body to be completely fit and strong for playing.
- **Warming Up :** It is very necessary to warm up the body before sports and cool it down at the end.
- **Equipment :** Always use correct and safe equipment according to the sport.

Safety Precautions

- **School Safety: Children should be provided a safe environment while commuting from home to school and while playing.**
- **Prevention :** Do not play when you are tired, do not let your body become dehydrated, and use safe sports equipment. Always keep a first aid kit ready for any emergency situation.

TOP 5 QUESTIONS

Q-1. What is the difference between strain and sprain?

Ans - In a strain, there is mainly overstretching or tearing of our muscles. Whereas in a sprain, the ligaments near the joints get overstretching or torn.

Q-2. What are the four steps of immediate treatment when an injury occurs?

Ans - There are four steps for immediate treatment when an injury occurs: first is giving rest, second is applying ice to reduce swelling, third is applying pressure by tying a bandage, and fourth is keeping the injured part elevated above the heart level.

Q-3. What is the difference between close and open fracture?

Ans - In a close fracture, the bone breaks inside but is not visible outside the skin. In an open fracture, the broken bone tears the skin and comes out of the body, which is very dangerous.



Q-4. What is called first aid?

Ans - The immediate and necessary help given to an injured or sick person before the arrival of a doctor is called first aid. Its main objective is to save the precious life of the human being.

Q-5. State two ways to prevent injuries in sports.

Ans - The first way is that the body should always be warmed up properly before playing. The second way is that correct and safe equipment like helmets or guards should always be used according to the sport.

