# HEALTH AND PHYSICAL EDUCATION

# CLASS- XII

# CHAPTER 1.PHYSICAL FITNESS

Q. 1 Fill in the blanks with appropriate word.

1. Appropriate **physical fitness** is necessary for the development of healthy personality.
2. **Needs** and **abilities** is necessary to make the individuals body ready for exercise
3. While increasing the exercise training the intensity and load should be increased slowlyand **steadily.**

4. **Physical activity** should be there for getting favorable changes in exercises.

Q.2. ANSWER IN ONE SENTENCE

Q.1.What do you mean by frequency of exercise?

**ANS: -** Number of sessions of exercise or 3 training, we do in a week is called as Frequency of training.

Q.2.Which principles should be considered while doing exercises?

**ANS: -**. While preparing the exercise program which will have positive changes, principles of fitness must be followed:

1. Individualization 2)Specificity 3)Overload

Q.3. What should be done to improve mental health and concentration?

**ANS: -**. Yoga should be included, so that your physical fitness will be increased and mental health will be maintained.

Q.4. For how many hours exercise should be done daily?

**ANS: -** Exercise at least one hour daily which will include exercises from medium to high intensity.

Q.3.Answer in brief

Q.1. Write the names of five components of health related physical fitness.

**ANS: -**. 1. Cardiovascular Endurance 2. Muscular Strength 3. Muscular Endurance 4. flexibility 5. Body Composition

Q.2. Write three main parts of an exercise session.

**ANS: -** Exercise Session is divided in to three parts. (1 Warming Up (2) Main Activity e.g. game/ activity (3) Cooling Down

Q.3. Which exercise should be selected to improve the cardiovascular endurance in daily exercise?

**ANS: -** In fitness training same type of the exercises should be avoided. Variety of exercises must be included to make the fitness training more interesting.

Q.4. WRITE YOUR VIEW

Q1. Importance of fitness for healthy life.

**ANS: -**. Physical activity or exercise can improve your health and reduce the risk of developing several diseases like type 2 diabetes, cancer and cardiovascular disease. Physical activity and exercise can have immediate and long-term health benefits. Most importantly, regular activity can improve your quality of life.

Q.2. Prepare your individual exercise or training program for developing physical fitness. **ANS: -**

* 1. Consider **your fitness** goals.
  2. Create **a** balanced **routine**.
  3. Start low and progress slowly.
  4. Build **activity** into **your** daily **routine**.
  5. **Plan** to include different activities.
  6. Try high-interval intensity **training**.
  7. Allow time for recovery.
  8. Put it on paper.

# CHAPTER 2 . Exercise: The scientific view

Q. 1. Fill in the blanks with appropriate words.

1. The year 2020 has brought about the deadly COVID-19 pandemic.
2. Any sport or fitnes program requires vigorous physical activity.
3. Warm up should form an integral part of daily exercise.
4. After any type of exercise cool down is a must.
5. The muscles need more oxygen during exercise.

Q.2. Match the following.

‘A’ Group (Answers) ‘B’ Group

1. Corona Virus - d) to increase the immunity against the disease
2. Warm - a) mental preparation of sport.
3. Cooling down b) to bring the tired muscle to normal.
4. Regular Exercise c) increase in physical ability.

Q.3. WRITE WHETHER TRUE OR FALSE.

* 1. The body should be prepared doing exercise–**TRUE**
  2. Cooling down after exercise is not necessary to get the body back to normal –**TRUE**
  3. The cholesterol level in the body gets uncontrolled due to regular exercise –TRUE
  4. The heart beats come to normal with a cooling down–**TRUE**
  5. The cardiac output of a person doing regular exercise or player is more than that of a normal person –**TRUE**

Q.4. **WRITE IN SHORT.**

**I.** Write down the importance of warm up?

**ANS: -** Importance of warm up are:-

1. Improves range of motion in joints flexibility of muscles and ligaments. 2. Reduce the chances of injuries. 3. Psychologically prepare the individual for the activity. 4. Improves reflexes.

**II** Why cooling down is necessary after exercise?

**ANS: -** Cooling down is necessary after exercise because:

1) Gradually bring the heart beat to normal.

2) Bring the elevated respiratory rate to normal.

3) Reduce the fatigue experience din the muscles.

4) Bring to normal the various systems of the body.

**III**. Write the benefits of regular exercise?

**ANS: -** Benefits of regular exercise are:-

1. Controls and maintains the weight.

2. Maintain healthy and symmetric physique.

3. Increases the physical abilities.

4. Exercise increases the strength and flexibility the body.

5. Improves functioning of the body’s internal systems- respiratory, digestive, circulatory etc.

Q. 3.Why stretching exercises are necessary after exercise?

**ANS: -** Stretching exercises are necessary after exercise because stretching exercise decreases the amount of lactic acid(which is a by- product created during exercise).If this lactic acid gets stored in the muscle ,pain and stiffness of muscle is experienced and may cause injury.

Q5. Write your view.

1. What will you do to protect yourself from coronavirus?

**ANS: -** 1. Clean your hands often. Use soap and water, or an alcohol-based hand rub.

2. Maintain a safe distance from anyone who is coughing or sneezing.

3. Wear a mask when physical distancing is not possible.

4. Don’t touch your eyes, nose or mouth.

5. Cover your nose and mouth with your bent elbow or a tissue when you cough or sneeze.

6. Stay home if you feel unwell.

7. If you have a fever, cough and difficulty breathing, seek medical attention.

Q.6. COMPLETE THE FOLLOWING FIGURE.

**BENEFITS OF COOLING DOWN**

**Gradually bring the heartbeat to normal.**

**Reduce the fatigue experienced in the muscles.**

**Any type of training involving physical exercise or playing sports a cool down is must.**

2)

**BENEFITS OF REGULAR EXERCISE**

**Controls and maintains the weight**

**Cholesterol level is regulated**

**Maintain healthy and symmetric physique**

**Exercise increases the strength and flexibility of the body**

**Increases physical abilities**

**Toughens and strengthen the body**

**Increases immunity**

# CHAPTER 3. STUDY OF YOGA

Q. 1. Fill in the blanks appropriate word.

1. The origin of yoga is in Sanskrit culture.
2. Dharana, Dhyana, and Samadhi these three limbs are called Ashtanga.
3. The study of oneself by self is called Swadhyaya.
4. The state that gives stability to the body and happiness to the mind is called Aasanas.
   1. Match the following: 'A' Group Answers B' Group
5. Tapas b) to increase ones physical, mental and intellectual fire.
6. Ishwar Pranidhana c)Trustful surrender of ones karma and will power to God
7. Santosha d) Satisfaction and happy attitude
8. Swadhyaya- a) Study of oneself by self
   1. Write whether true or false:

1. The digestion system works to meet the need for oxygen. - **false**

1. Asteya means not to steal. - **false**
2. Asana enhances health and rejuvenates the body and mind - **true** Q.4. Write in one sentence.

Q.1. Name the Sanskrit word from which Yoga is derived?

**ANS: -** The word 'Yoga' is derived from the Sanskrit root word 'Yuj'. Q.2. What is Dhyana?

**ANS: -**. Dhyana is sustaining concentration of mind on singular object. It refers to meditation and is focused inward.

Q.3. Which are the 5 lims of Bhairanga Yoga?

**ANS: -** The Five limbs of Bhairanga Yoga are Yama, Niyama, Asana, Pranayama and Pratyahara

Q.4. What is Pranayam?

**ANS: -** 'Prana' means breath, respiration, life, life force and 'Ayama' is to extend or increase the length. To regulate the respiratory process.

Q.5. Write in brief.

Q.1. Write the benefits of Study of Yoga.

**ANS: -** 1.Improves the functions of internal organs of the body. 2.Increases immunity.

3. Improves blood circulation. 4.Spine becomes flexible.

5.Body becomes flexible and agile. 6.Increases the enthusiasm for work. 7.There is no fatigue.

1. You get peace of mind.
2. Helps to improve concentration.
3. Awareness of maintaining appropriate body posture is created.

Q.2. Write information of Asthanga Yoga

**ANS: -** There are different ways of practicing yoga. Here, Asthanga Yoga i.eRajyoga, the eight limbs for the purification of body, mind and soul, will be studied. In order to develop various aspects of human personality, it is necessary toknow the eight limbs of yoga and perform them accordingly.

These limbs are yama, niyama, asana, pranayama, pratyahara, dharna, dhyana and samadhi.

Q.3. Explain the basics of Breathing.

**ANS: -** Breathing occurs naturally. It can also be done voluntarily in a limited form. Respiratory systemworks to meet the oxygen needs of the time.

Normally, awareness is poor when breathing naturally. Awareness sets in when work or exercise increases and the speed of respiration is elevated to meet the

Increased demand. This means that an increased need for oxygen or a disturbance in its supply diverts attention to breathing. Breath is the great connector between body and mind. Similarly, respiration, body posture and thoughts are interconnected. If breathing is normal and slow, automatically mind becomes calm and peaceful. Breathing is a natural process. Humans have 15 to 17 repetitions of inhalation and exhalation in a minute. In Pranayama breathing becomes controlled so automatically mind is also controlled.

Respiration is satisfied through the process of inhalation and exhalation. An attitude of contentment can be cultivated by connecting self with awareness of inhalation and exhalation. Therefore the key to satisfaction is 'Pranayam'.

Q.7. Explain your views.

Q.1. Explain your views on Pranayama, 'The key to social health'

**ANS: -** Pranayama is a daily activity which can be performed by every individual at home. Concentrating on your breathing every day in the morning for almost 10 minutes can keep you fresh for the entire upcoming day. Respiration plays a vital role in the living of human being, inhaling fresh air is very important. This process is smoothly carried out but performing Pranayama every day and it helps to increase concentration of mind. Mind is kept peaceful after taking proper oxygen. Hence, Pranayama is a key to social health in true sense.

Q.2. World Yoga Day - 21st June

**ANS: -** 21st of June is recognized as World Yoga Day. Our Prime Minister Mr. Narendra Modi Sir has introduced yoga on national level as an important part of life. He himself performs it every day in such an age. Yoga keeps our body flexible and our mind calm. Every 'Asan' of Yoga has its own importance and purity. Yoga keeps us away from viral or contagious diseases, providing us a healthy soul. Every individual should perform Yoga daily for better health in future.

# CHAPTER 4. DIET

Q.1. Fill in the blanks

1. Intake of Nutrients into the body and using it means nutrition.
2. From 1 gm. of Protein 4 Kcal energy is received.
3. Players performing strengthening exercises should increase proportions of

Carbohydrates, Proteins, Fats, Vitamins and Minerals in their diet.

1. Normal sedentary individual requires 2500 Kcal energy daily.

Q.2. Write only names

1. Factor regulating body temperature -**water**
2. Fat Soluble Vitamins -**A D E and K**
3. Energy-rich compound formed from Glucose -**glycogen**
4. Nutrient important for stronger bones -**minerals** Q.3. Match the Following Part A Answers Part B
5. Sprouted Food - b) Amrutann
6. Fried Food - d) Vishann
7. Water- a) Temperature Control
8. Micro- Nutrients c) Vitamins

Q.4. Answer in brief

1. Write the process to prepare Sports Drink at home.

**ANS: -** To prepare Sports drink at home add 1 tbsp salt + 4 spoon glucose + half lemon to 1 litre of water. It is important to consume adequate amount of water in sports of high sweating and high temperature.

1. Write importance of Balanced Diet.

**ANS: -**. A balanced diet provides good nutrition to the body.

* One gets the required amount of calories on a daily basis. As a result, one gets better physical and mental health.
* Develops the ability to work.
* Increases immunity

1. On which factors the diet of Sportsmen depends?

**ANS: -**. Diet depends on factors such as the game of the athlete, his weight, his age, level of training and environment.

1. Classify Nutrients according to their functions. **ANS: -** 4) Classification of Nutrients :

We receive many components from food which are called as nutrients. The nutrients are classified into two groups:

1. Staple Nutrients / Macro-Nutrients: Carbohydrates, Protein and Fats are major nutrients and are required in higher quantities in the body.
2. Micro Nutrients: Vitamins, Minerals these are required in lesser quantities in the body. These are

called as Micro-Nutrients. **Carbohydrates:**

They perform important function of supplying energy to the body. From one gram of carbs one receives four kilocalories of energy. From the total energy required for the body one should receive 55-60 % from Carbohydrates. We get carbohydrates From the following foods Cereals like Cow, rye, millet, maize, rice, etc. One gets carbohydrates from Fruits like mangoes, grapes, bananas, apples, potatoes, sweet potatoes and milk and milk products. After digestion, they are converted into glucose. Excessive amounts of glucose are stored in the form of glycogen. When body is deprived of food, this glycogen is broken down and re-formed into glucose and the body gets the required energy.

**Protein:**

It is essential for nourishment, growth and degeneration of the body as well as for strengthening the bones. four kcal of energy is obtained from 1 gm of protein. About 15% of the total energy requirement should come from protein sources. Pulses, legumes, groundnuts, cashews, almonds, apricots, milk, dairy products, meat, fish, eggs are other sources of protein.

**Fats:**

Fats are essential for energy production, controlling body temperature, lubrication of the joints and nourishment of the body. About 25-30% of the total energy you need should come from Fats sources. Oilseeds, Coconut, Oil, Ghee, Butter, Milk, Meat, Fish and Fish Oil are the main sources of Fats. Nine kcal of energy is derived from one gram of Fats.

**Minerals:**

Minerals are required for good health and growth of body, teeth, bones and nerves. Green leafy vegetables, legumes, cashews, almonds, dates, sesame, pulses, eggs, meat, fish, marine and other sources are rich in minerals like calcium, phosphorus, iron, iodine, potassium, copper, magnesium, sodium, etc.

Vitamins:

Vitamins are essential nutrient for proper growth and development of the body. Lack of vitamins leads to many disorders. The body receives the required vitamins from a wide variety of vegetables and fruits such as green leafy vegetables, broken grains, bananas and animal products like eggs, milk, butter, meat and fish.

**Types of Vitamins:**

1. Fat soluble Vitamins: A, D, E and K
2. Water Soluble Vitamins: B (B1, 2,3,6,12) and C

**Water:**

Body contains 65-70% water which is essential to maintain the body temperature. Water is essential for digestion, absorption and to transport essential nutrients and also for excretion.