

DIRECTORATE OF EDUCATION
Govt. of NCT, Delhi

SUPPORT MATERIAL
(2021-2022)

Class : XI

PHYSICAL EDUCATION

Under the Guidance of

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MESSAGE

I would like to congratulate the members of Core Academic Unit and the subject experts of the Directorate of Education, who inspite of dire situation due to Corona Pandemic, have provided their valuable contributions and support in preparing the Support Material for classes IX to XII.

The Support Material of different subjects, like previous years, have been reviewed/ updated in accordance with the latest changes made by CBSE so that the students of classes IX to XII can update and equip themselves with these changes. I feel that the consistent use of the Support Material will definitely help the students and teachers to enrich their potential and capabilities.

Department of Education has taken initiative to impart education to all its students through online mode, despite the emergency of Corona Pandemic which has led the world to an unprecedented health crises. This initiative has not only helped the students to overcome their stress and anxiety but also assisted them to continue their education in absence of formal education. The support material will ensure an uninterrupted learning while supplementing the Online Classes.

(H. Rajesh Prasad)

UDIT PRAKASH RAI, IAS
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MESSAGE

The main objective of the Directorate of Education is to provide quality education to all its students. Focusing on this objective, the Directorate is continuously in the endeavor to make available the best education material, for enriching and elevating the educational standard of its students. The expert faculty of various subjects undertook this responsibility and after deep discussions and persistent efforts, came up with Support Material to serve the purpose.

Every year the Support Material is revised/updated to incorporate the latest changes made by CBSE in the syllabus of classes IX to XII. The contents of each lesson/chapter are explained in such a way that the students can easily comprehend the concept and get their doubts solved.

I am sure, that the continuous and conscientious use of this Support Material will lead to enhancement in the educational standard of the students, which would definitely be reflected in their performance.

I would also like to commend the entire team members for their contributions in the preparation of this incomparable material.

I wish all the students a bright future.

(UDIT PRAKASH RAI)

Dr. RITA SHARMA
Additional Director of Education
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D.O. No. PA/Addl. DE/Sc4/31

Dated: 29.06.2021

MESSAGE

It gives me immense pleasure to present the revised edition of the Support Material. This material is the outcome of the tireless efforts of the subject experts, who have prepared it following profound study and extensive deliberations. It has been prepared keeping in mind the diverse educational level of the students and is in accordance with the most recent changes made by the Central Board of Secondary Education.

Each lesson/chapter, in the support material, has been explained in such a manner that students will not only be able to comprehend it on their own but also be able to find solution to their problems. At the end of each lesson/chapter, ample practice exercises have been given. The proper and consistent use of the support material will enable the students to attempt these exercises effectively and confidently. I am sure that students will take full advantage of this support material.

Before concluding my words, I would like to appreciate all the team members for their valuable contributions in preparing this unmatched material and also wish all the students a bright future.

(Rita Sharma)

भारत का संविधान
भाग 4क
नागरिकों के मूल कर्तव्य

अनुच्छेद 51क

मूल कर्तव्य - भारत के प्रत्येक नागरिक का यह कर्तव्य होगा कि वह -

- (क) संविधान का पालन करे और उसके आदर्शों, संस्थाओं, राष्ट्रध्वज और राष्ट्रगान का आदर करे;
- (ख) स्वतंत्रता के लिए हमारे राष्ट्रीय आंदोलन को प्रेरित करने वाले उच्च आदर्शों को हृदय में संजोए रखे और उनका पालन करे;
- (ग) भारत की संप्रभुता, एकता और अखंडता की रक्षा करे और उसे अक्षुण्ण बनाए रखे;
- (घ) देश की रक्षा करे और आह्वान किए जाने पर राष्ट्र की सेवा करे;
- (ङ) भारत के सभी लोगों में समरसता और समान भ्रातृत्व की भावना का निर्माण करे जो धर्म, भाषा और प्रदेश या वर्ग पर आधारित सभी भेदभावों से परे हो, ऐसी प्रथाओं का त्याग करे जो महिलाओं के सम्मान के विरुद्ध हों;
- (च) हमारी सामासिक संस्कृति की गौरवशाली परंपरा का महत्त्व समझे और उसका परिरक्षण करे;
- (छ) प्राकृतिक पर्यावरण की, जिसके अंतर्गत वन, झील, नदी और वन्य जीव हैं, रक्षा करे और उसका संवर्धन करे तथा प्राणिमात्र के प्रति दयाभाव रखे;
- (ज) वैज्ञानिक दृष्टिकोण, मानववाद और ज्ञानार्जन तथा सुधार की भावना का विकास करे;
- (झ) सार्वजनिक संपत्ति को सुरक्षित रखे और हिंसा से दूर रहे;
- (ञ) व्यक्तिगत और सामूहिक गतिविधियों के सभी क्षेत्रों में उत्कर्ष की ओर बढ़ने का सतत प्रयास करे, जिससे राष्ट्र निरंतर बढ़ते हुए प्रयत्न और उपलब्धि की नई ऊँचाइयों को छू सके; और
- (ट) यदि माता-पिता या संरक्षक हैं, छह वर्ष से चौदह वर्ष तक की आयु वाले अपने, यथास्थिति, बालक या प्रतिपाल्य को शिक्षा के अवसर प्रदान करे।

CONSTITUTION OF INDIA

Part IV A (Article 51 A)

Fundamental Duties

Fundamental Duties : It shall be the duty of every citizen of India —

1. to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;
2. to cherish and follow the noble ideals which inspired our national struggle for freedom;
3. to uphold and protect the sovereignty, unity and integrity of India;
4. to defend the country and render national service when called upon to do so;
5. to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women;
6. to value and preserve the rich heritage of our composite culture;
7. to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures.
8. to develop the scientific temper, humanism and the spirit of inquiry and reform;
9. to safeguard public property and to adjure violence;
10. to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement.
11. who is a parent or guardian to provide opportunities for education to his child or, as the case may be, ward between the age of six and fourteen years.

भारत का संविधान उद्देशिका

हम, भारत के लोग, भारत को एक ¹[संपूर्ण प्रभुत्व-संपन्न समाजवादी पंथनिरपेक्ष लोकतंत्रात्मक गणराज्य] बनाने के लिए, तथा उसके समस्त नागरिकों को :

सामाजिक, आर्थिक और राजनैतिक न्याय,
विचार, अभिव्यक्ति, विश्वास, धर्म
और उपासना की स्वतंत्रता,
प्रतिष्ठा और अवसर की समता

प्राप्त कराने के लिए,

तथा उन सब में

व्यक्ति की गरिमा और ²[राष्ट्र की एकता

और अखंडता] सुनिश्चित करने वाली बंधुता

बढ़ाने के लिए

दृढ़संकल्प होकर अपनी इस संविधान सभा में आज तारीख
26 नवंबर, 1949 ई. को एतद्वारा इस संविधान को
अंगीकृत, अधिनियमित और आत्मार्पित करते हैं।

1. संविधान (बयालीसवां संशोधन) अधिनियम, 1976 की धारा 2 द्वारा (3.1.1977 से) "प्रभुत्व-संपन्न लोकतंत्रात्मक गणराज्य" के स्थान पर प्रतिस्थापित।
2. संविधान (बयालीसवां संशोधन) अधिनियम, 1976 की धारा 2 द्वारा (3.1.1977 से) "राष्ट्र की एकता" के स्थान पर प्रतिस्थापित।

THE CONSTITUTION OF INDIA

PREAMBLE

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a ¹**[SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC]** and to secure to all its citizens :

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity; and to promote among them all

FRATERNITY assuring the dignity of the individual and the ²[unity and integrity of the Nation];

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949 do **HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.**

1. Subs. by the Constitution (Forty-second Amendment) Act, 1976, Sec.2, for "Sovereign Democratic Republic" (w.e.f. 3.1.1977)
2. Subs. by the Constitution (Forty-second Amendment) Act, 1976, Sec.2, for "Unity of the Nation" (w.e.f. 3.1.1977)

DIRECTORATE OF EDUCATION
Govt. of NCT, Delhi

SUPPORT MATERIAL
(2021-2022)

PHYSICAL EDUCATION
Class : XI

NOT FOR SALE

PUBLISHED BY : DELHI BUREAU OF TEXTBOOKS

HEALTH AND PHYSICAL EDUCATION

CLASS XI (2021-22)

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PHYSICAL EDUCATION (048)
DISTRIBUTION OF SYLLABUS, 2021-2022
CLASS : XI

TERM-I : THEORY (MCQ BASED)

35 MARKS

Unit No. 1 : Changing Trends and Career in Physical Education

- Meaning & definition of Physical Education
- Aims & Objectives of Physical Education
- Career Options in Physical Education.
- Khelo-India Program

Unit No. 2 : Olympic Value Education

- Olympics
- Olympic Symbols, Ideals, Objectives & Values of Olympism
- International Olympic Committee
- Indian Olympic Association

Unit No. 3 : Physical Fitness, Wellness and Lifestyle

- Meaning and Importance of Physical Fitness, Wellness & Lifestyle
- Components of physical fitness and Well ness
- Components of Health related fitness

Unit No. 7 : Test, Measurement and Evaluation

- Define Test, Measurement & Evaluation
- Importance of Test, Measurement & Evaluation in Sports
- Calculation of BMI & Waist - Hip Ratio.
- Measurement of health related fitness.

Unit No. 8 : Fundamentals of Anatomy, Physiology and Kinesiology in Sports

- Definition and Importance of Anatomy, Physiology & Kinesiology
- Function of Skeleton System, Classification of Bones & Types of Joints.
- Function & Structure of Respiratory System and Circulatory System
- Equilibrium - Dynamic & Static And Centre of Gravity and its application in sports

TERM-II : THEORY (SHORT/LONG ANSWER)**35 MARKS****Unit No. 4 : Physical Education and Sports for CWSN (Children With Special Needs - Divyang)**

- Aims & objectives of Adaptive Physical Education
- Organization promoting Adaptive Sports (Special Olympics Bharat; Paralympics; Deaflympics)
- Role of various professionals for children with special needs (Counsellor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist & special Educator)

Unit No. 5 : Yoga

- Meaning & Importance of Yoga
- Elements of Yoga
- Introduction - Asanas, Pranayam, Meditation & Yogic Kriyas
- Yoga for concentration & related Asanas (Sukhasana; Tadasana; Padmasana & Shashankasana, Naukasana, Vrikshasana (Tree pose), Garudasana (Eagle pose)

Unit No. 6 : Physical Activity and Leadership Training

- Leadership Qualities & Role of a Leader
- Meaning, objectives & types of Adventure Sports (Rock Climbing, Tracking, River Rafting, Mountaineering, Surfing and Paragliding)
- Safety measures to prevent sports injuries

Unit No. 9 : Physical Activity and Leadership Training

- Leadership Qualities & Role of a Leader
- Meaning, objectives & types of Adventure Sports (Rock Climbing, Tracking, River Rafting, Mountaineering, Surfing and Paragliding)
- Safety measures to prevent sports injuries

Unit No. 10 : Training and Doping in Sports

- Meaning & Concept of Sports Training
- Principles of Sports Training
- Concept & classification of doping
- Prohibited Substances & their side effects

TERM I - PRACTICAL

- Project File 05 Marks
(About one sport/game of your choice)
- Demonstration of Fitness Activity 05 Marks
- Viva Voce (From Project File; Fitness) 05 Marks

TERM II - PRACTICAL

- Project File 05 Marks
(Yoga and General Motor Fitness Test)
- Demonstration of Fitness Activity/Yoga 05 Marks
- Viva Voce (From Viva Voce) 05 Marks
(From Project File; General Motor Fitness; Yoga)

* For resource material refer Class-XI Physical Education Handbook available at Board's Academic website: www.cbseacademic.nic.in

Note : Please follow instructions provided by CBSE about course structure and question paper design.

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Unit - 1

Changing Trends and Career in Physical Education

Main Point :-

- ✍ 1.1 Meaning and Definition of Physical Education
- ✍ 1.2 Aim and Objectives of Physical Education
- ✍ 1.3 Career Options in Physical Education
- ✍ 1.4 Competitions in Various Sports at National and International Level
- ✍ 1.5 Khelo India Programme.

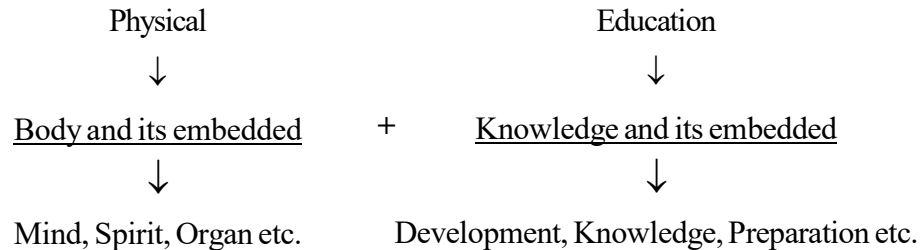
He who has health, has hope, and he who has hope, has everything.

—*Thomas Carlyle*

“Both Participation and study are vital to Physical Education”

—Dr. M.L. Kamlesh

1.1 Meaning of Physical Education :-



“Physical and Physical Activities are the process, Education is their result”

“Physical and Physical Activities are the cause, Education is their effect”

So, physical education can be referred to an education process which aims to develop human personality through activity.

Definition :-

Physical Education is that part of Education which study the health, sports, athlete, tournaments, nutrition, injuries and body with its embedded – Mind, organs muscles etc. to makes a person all rounder.

Physical Education is a process through which an individual obtain optimal physical, mental, social skills and fitness through physical activity.

- Lumpkin

1.2 Aim :-

To makes wholesome personality person / all round development.

Objectives of Physical Education

Aim is highest general purpose, objectives are specific. So, after study physical educators, philosophers, international and national association on physical education, we can conclude the following main objective to achieve the ultimate aim. They are:

- **Physically Strong:-** Physical education enhance this aspect which include the fitness-strength, speed, flexibility, endurance along with proper functioning of organs with strong muscles and bones.

- **Mental Development:-** Mental alertness, concentration requires in sports and games along with theoretical study of physical education as subject. So, it improves and develops thinking, intelligence, knowledge, analysis, cognitive and intellectual abilities etc.
- **Social Adjustable:-** Physical Education gives the platform of competition and co-operation with wide scope to learn honesty, socialization, leadership, discipline work ethics through sports and physical activities.
- **Emotional Balance:-** Win, defeat, aggression, fear, pleasure, love, anger, patience etc. are involved in physical education and its embedded part of sports. So, anyone can learn, how to get through it and balance himself/herself by learning physical education.
- **Spiritually Development :-** Peace, moral values, forgiveness develops with the help of Physical Education.

1.3 Career Options in Physical Education :-

Although, all careers depend on Health. Even, many careers directly related to Physical Education for e.g. Teacher, Coach, Business, Official, Equipment Design, Sportsperson, Administrator, Technology, Video-Biomechanics Analyser, fitness, wellness etc. And almost all careers depends on physical education indirectly, where physical education works as synergy to them e.g. – Defence, Doctor, Engineer, Scientist, Pilot etc. Physical education is helping all. Along this, many job has special quota for sportsperson in jobs with age relaxation too.

Below is the list for career option in Physical Education directly :-

1. In Teaching Sector	2. In Training Sector (Coaching)	3. (In Health/ Fitness related Sector)	4. In Performance related Sector	5. In Media Sector	6. Technology	7. Officials
At Primary Level • Instructor • Teacher	In Schools, colleges, University • Coach	Sports Fitness/ Trainer / Medicine Sports Dietician	Professional Players Partner/Training Players	Sports Journalism Book Author	Technology Engg.	Referee
At Middle • Teacher • Demonstrator	In Various Sports Institutions • Ground Employees	Sports Psychology	Sports Planning Officer	Sports videography/ photography	Technology Assistant	Umpires
At Secondary level • Lecturer	Industrial Recreation, Masseuse	Sport Nutritionist	Sports Management Event manager	Sports Broadcasting	Equipment Designer	Judges

1. In Teaching Sector	2. In Training Sector (Coaching)	3. (In Health/Fitness related Sector)	4. In Performance related Sector	5. In Media Sector	6. Technology	7. Officials
At College and University level <ul style="list-style-type: none"> • Professor Teaching at other Professional institution <ul style="list-style-type: none"> • Sports Scientist • Researcher 	Sports Facility Management Administration <ul style="list-style-type: none"> • Director • Sports officer 	In Gym as Athletic Trainer Health/Fitness/Wellness Industry Weight management Yoga	Recreational Sport Management Performance Talent (sports) identification	Sports advertising (Sports equipments marketing)	Movement (Bio-Analyser) Laboratory	

There are many start-up careers in physical education for e.g. – Practice and Training Partner, Athlete Promotion Management Company, International League Competition, Coaching to foreign country team. (Iran Team Women Kabaddi trained by Indian Coach which won Asian Gold 2018).

1.4 Competition in various Sports at National and International level :-

Famous sports competitions organized at international level – Summer Olympic Games, Winter Olympic Games, Youth Olympics, Para-Olympics, Deaf Olympics, World Games (Non-Olympics Sports) World Championship, world Cup, Asian Games, Wimbledon, Commonwealth Games, Asian Championship, SAF Games and some famous tournaments like – Wimbledon, Thomas Cup etc. Some sports competition organized at national level like – National Games, Senior, Junior and Sub-junior National Championships. All India civil Service Tournament, All India Police Games, Schools Games, All India University Games, Khelo India Games and different league tournaments.

1.5 Khelo India Programme :-

It is a national level programme started by Govt. of India for the development of sports with mass participation and promotion of excellence. It was launched in the year 2018. The inaugural 2018 games had students competing for 209 Gold Medals across 16 sports in Delhi. Telecast on national and international sports channel like Star Sports with all international facilities to the players.

Change in Name: Formerly Khelo India School Games (KISG) now called Khelo India Youth Games (KIYG).

Categories : Two categories namely under-17 years School students and under 21 years college students and 17-25 years University Games.

Scholarship : Priority Sports and Identified players will be given an annual scholarship of Rs. 5 lakh (US\$7000) for 8 years to prepare them for international sports events.

Edition, Medals & Sports :-

I Edition — 31 Jan. to 08 Feb. 2018 at Delhi in 16 sports, Haryana was the overall champion, followed by Maharashtra and Delhi with 38, 36, 25 Gold Medals respectively.

II Edition — 09 Jan. to 20 Jan. 2019 at Pune, Maharashtra with total for 403 Gold, Maharashtra was the overall champion, followed by Haryana and Delhi with 85, 62, 48 Gold Medals respectively.

III Edition — Jan. 10 to Jan. 22, 2020 at Guwahati, Assam with total for 447 Gold in 20 sports Maharashtra was the Champion, followed by Haryana and Delhi with 78, 68, 39 Gold Medals respectively.

IV Edition — 4th Edition in Feb. 2022 is schedule in Haryana where four indigenous games are added - Gatka, Kalaripayattu, Thang-ta and Mallakhamb.

Khelo India Winter Games : Khelo India Winter Games are also started in 2020 for winter games in India at Leh and Gulmarg in 17 sports for 49 Gold Medals, Jammu and Kashmir was the overall champion.

Khelo India University Games : A multi-sport event among the Universities of India the inaugural edition held in from 22 feb to 01 March 2020 in age group of 18 to 25 years in 17 sports for 206 Gold, where Panjab University Chandigarh was the overall champion with 17 gold and 19 silver followed by Savitribai Phule Pune university Maharashtra with 17 gold and 11 silver, third spot won by Punjabi University Patiala with 13 gold medals.

Vision :- Infuse sports culture and achieve sporting excellence in the country.

Mission :-

- Encourage sports for all across gender and all age group.
- Holistic Development of children and youth.
- Community Development

- Social integration
- Gender equality
- Healthy lifestyle
- National pride and economic opportunities related to sports development
- Support to academies (At least one for Para. Athlete)

Objectives:-

- Mass Participation
- Promotion of excellence in sports.

Merger:-

- Rajiv Gandhi Khel Abhiyan
- Urban Infrastructure Scheme
- National Sports Talent Search Scheme

SHORT (OBJECTIVE) (1 MARK)

Q.1 What is the word ‘Physical’ in Physical Education? Describe.

- | | |
|-------------------------------|---|
| (a) Body only | (b) Participation in exercise |
| (c) Physical Training Related | (d) Body with all its embedded mind, spirit, organs with physical activity. |

Ans. (d) Body with all its embedded mind, spirit, organs etc. with physical activity.

Q.2 Where did first Khelo India Winter Games held?

- | | |
|---------------------|-----------------------|
| (a) Leh and Gulmarg | (b) Shimla and Manali |
| (c) Srinagar | (d) Chamoli and Auli |

Ans. (a) Leh and Gulmarg

Q.3 What is the aim of physical Education?

- (a) Physical development of a person
- (b) Motor development of a person
- (c) Mental Development of a person
- (d) All Round development of a person

Ans. (d) All Round development of a person

Q.4 Sports management is based upon....?

- (a) Efficient and Talented officials (b) Smart and clever officials
- (c) Weak and Greedy officials (d) None of these

Ans. (a) Efficient and Talented officials

Q.5 For a Reporter what qualities are desired most?

- (a) Sweet Speaking skills (b) Soft Speaking skills
- (c) Excellent Speaking skills (d) Beautiful Personality

Ans. (c) Excellent Speaking skills

Q.6 What is the scope of Coaching?

- (a) Social Parks - Fitness Camp (b) Sports Clubs
- (c) Hotels - Gym (d) All of the above

Ans. (d) All of the above

Q.7 Thomas cup is related to which Game?

- (a) Hockey (b) Judo
- (c) Badminton (d) Football

Ans. (c) Badminton

Q.8 Where did first 'Khelo India Games' were held?

- (a) Mumbai (b) Delhi
- (c) Hyderabad (d) Kolkata

Ans. (b) Delhi

Q.9 Which state of India stood first in first 'Khelo India Games' in 2018?

- (a) Delhi (b) Punjab
- (c) Kerala (d) Haryana.

Ans. (d) Haryana

Q.10 How many sports discipline will be there in fourth 'Khelo India Games'?

- (a) 12 (b) 24
- (c) 16 (d) 18

Ans. (b) 24

Q.11 When did the first ‘Khelo India Games’ were held?

- | | |
|----------|----------|
| (a) 2016 | (b) 2018 |
| (c) 2017 | (d) 2019 |

Ans. (b) 2018

SHORT - ANSWER TYPE QUESTION (2 MARKS)

Q.1 Define Physical Education.

Ans. Physical Education is that part of education which deals with health, sports, athlete, tournament, recreation, body and its embedded muscles, organ, mind, spirit to make a person all-rounder.

According to Lumpkin:-

It is a process through which an individual obtains optimal physical, mental, social skill and fitness through physical activity.

Q.2 Write about New Games under Khelo India Programme.

- Ans.**
1. Khelo India Winter Games : Started in 2020 for winter sports e.g. Ice Hockey, Ice Skating in Leh and Gulmarg.
 2. Khelo India University Games : Multi-Sports Event among the universities of India started in 2020 in Bhubaneswar (Orissa)

Q.3 Write the international sports event of Tennis?

- Ans.**
- | | |
|--------------------|----------------|
| 1. Summer Olympics | 5 U.S. Open |
| 2. Davis Cup | 6. Hopman Cup |
| 3. Wimbledon | 7. French Open |
| 4. Australian Open | 8. Tata Open |

Q.4 Define Social Adjustable objective of Physical Education.

Ans. Physical Education enhance this aspect by giving the platform to participate in play, physical activity which develop the sense of socialization, discipline, loyalty, honesty, leadership etc.

SHORT ANSWER TYPE QUESTIONS (3 MARKS)

Q.1 What do you mean by sports journalism?

Ans. Through sports journalism we mean that we can gather information regarding all sports activities and to collect different types of material required for physical education. Such physical education teachers who have skill in communicating by oral or writing can avail the career option in the field of sports journalism.

Q.2 What is the objective of physical education?

Ans.

- Physically Strong
- Mental Development
- Socially and Adjustable
- Emotionally Balance
- Spiritually Develop

Q.3 Discuss the teaching career in physical education.

Ans.

- Elementary School :- Teacher, Demonstrator
- Middle School :- Teacher
- Sr. Secondary School :- Lecturer
- College and University :- Professor, Director

CASE STUDY QUESTION

Q.1 Rahul has won Gold Medal in Khelo India Games 2020, Principal ask him to speech on stage about his glory. By study above case answer the following

1. How many Khelo India Sports events in edition 2020 ?

(a) 18 (b) 19 (c) 20 (d) 21

Ans. (c) 20

2. What is Khelo India Games ?

Ans. National level multi-disciplinary grass root games in India.

3. How much scholarship national level programme for development of sports an Athlete receive, if selected

- (a) 5 Lakh for 8 years (b) 8 Lakh for 5 years
(c) 5 Lakh for 1 year (d) 3 Lakh for 2 years

Ans. (a) 5 Lakh for 8 years

LONG - ANSWER TYPE (5 MARKS)

Q.1 Write a short note on the following :

- (i) Book Publishing**
(ii) Sports Photography

Ans. (i) Book Publishing: There are a number of publishing houses who publish books concerning physical education.

They need highly qualified Physical Education experts who possess extraordinary knowledge in this field. Alongwith its sub-discipline health education is developing and in all these disciplines publishing houses need persons to take care of books in the process. Editorial workers are also needed by most of the publishing houses. They need such persons who are aware of publication needs. These personnels should have knowledge of physical education writing and Editorial skill. Personnels are also required for direct sales. The person doing the sale job should have a good knowledge of the field of physical education and comparative value of the available books. They should have the idea of market and experience in organising sales and convincing power.

Thus, there are a lot of opportunities in every field to step in. Sales opportunities are available almost on similar lines in the fields of magazines and journal particularly those which are related with sports.

(ii) Sports Photography: This is again a vast open field but this field again needs physical education experts who have particular interest in photography. They should have the capacity to communicate with the masses through clear and illustrative photographs. The photographs should be self-explanatory.

These are scopes of journals, newspapers which require such photographers. At therefore, here we see lot of scope available for physical education experts who have aptitude to be a photographer. Courses in photography coupled with experience is a must for these kind of jobs.

Q.2. Discuss administration careers in detail.

Ans. (i) Department of Physical Education. There are many universities and some colleges in India, where various courses of physical education is studying. In such departments, the administration lies in the hands of chairman or head. He is the sole administrator of the teaching department. Teachers of physical education and other clerical staff work under the chairman/head. The senior teachers of the department usually acts as the chairman. There is no need for separate management qualifications for such post, because it is based on the seniority many of times.

There are always a number of people and organisations who want to have sports facilities where they can exercise to remain healthy, fit and for the purpose of recreation. They desire facilities of gymnasium, health club, fitness centre, stadium, sports complexes, ice arenas, and aquatic centre or swimming pool. In such fields, facilities managers are required.

MIND MAPPING

Meaning of Physical Education: Physical Education can be referred to an educational process which aims to develop human personality through activity.

1. DEFINITION OF PHYSICAL EDUCATION

According to Charles A Bucher, "Physical Education is an integral part of the total educational process and has as its aim the development of physically, mentally, emotionally and socially fit citizens through the medium of physical activities which have been selected with a view to realize these outcomes.

2. AIMS OF PHYSICAL EDUCATION

The aim of physical education and sports is the overall development of human personality so that he is able to withstand the ups and downs of human life & become a respectable citizen of the society.

3. OBJECTIVES OF PHYSICAL EDUCATION

1. Physical Development
3. Emotional Development
2. Spiritual Development
4. Social Development
5. Mental Development

4. CAREER OPTIONS IN PHYSICAL EDUCATION

- (A) Teaching Career in Physical Education
- (B) Coaching Career in Physical Education
- (C) Health Related Careers in Physical Education
- (D) Administration Related Careers
- (E) Performance Related Careers
 1. As Players
 2. As Officials
 3. BookWriting

(F) Careers in Communication Media

1. Sports Journalism for commentator
2. Sports Photography
3. As Recorders
4. Book Publishing
6. Sports Marketing
5. Sports Industry

5. COMPETITIONS IN VARIOUS SPORTS AT NATIONAL LEVEL

Sport	Competition
Cricket	Ranji Trophy, Indian Premier League (IPL)
Kabaddi	Pro Kabaddi League
Football	Indian Super League, I-League
Hockey	Hockey India League
Athletics	National Games

6. VARIOUS INTERNATIONAL LEVEL SPORTS COMPETITIONS

Single Sport Events:-

Sport	Competition
Badminton	Badminton World Championship
Baseball	World Baseball Classic
Basketball	Basketball World Cup
Boxing	Boxing World Championships
Cricket	ICC World Cup, World Cup Twenty 20
Hockey	World Cup
Football	FIFA World Cup
Table Tennis	TableTennis World Championships
Triathlon	World Triathlon Series
Volleyball	Volleyball World Championships
Weight Lifting	World Weightlifting Championships

Muti-Sport Events:-

- Sports Competition:**
1. Summer Olympics
 2. Winter Olympics
 3. Paralympic Games
 4. Commonwealth Games
 5. Youth Olympics

7. KHELO INDIA PROGRAMME

The Ministry of Sports and Youth Affairs introduced Khelo India Programme in the year 2017. Aim is to inspire the young talent of the country to participate in sports activities, focus on nurturing raw talent, promoting mass participation, connecting rural India to global games and provide a financial assistance of INR 5 lakh per annum for 8 years to talented selected players from various sports disciplines.

STRUCTURE OF THE KHELO INDIA PROGRAMME

Khelo India Programme has been divided into the following 12 components:-

1. Play Field Development
2. Community Coaching Development
3. State Level Khelo India Centres
4. Annual Sports Competitions
5. Utilization and Creation/ Upgradation of Sports Infrastructure
6. Support to National/Regional/State Sports Academies
7. Physical Fitness of School-going Children
8. Sports for Women
9. Promotion of Sports among persons with disabilities
10. Sports for Peace and Development
11. Promotion of rural and indigenous/tribal games

“Massachusetts Institute of Technology, U.S. :- Among the best Technology Institute of the World (92 Noble Laureates), has produce 22 Team National Champion, 42 Individual National Champions with 23 Olympians and 04 Olympic Medalist (02 Gold).”

Unit - 2

Olympic Value Education

Main Point :-

- ✍ 2.1 Olympics, Paralympics and Special Olympics
- ✍ 2.2 Olympic Symbols, ideals, Objectives and Value of Olympism
- ✍ 2.3 International Olympic Committee
- ✍ 2.4 Indian Olympic Association

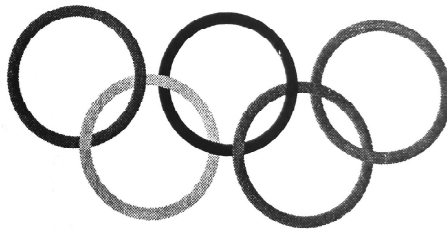
2.1 Olympics :-

- a) **Ancient Olympics:** Ancient Olympics started in 776 B.C. and abolished in 394 A.D. by Roman Emperor Theodosius-I, the games were held in honour of God Zeus and only for born Greek. The winner of first Olympic in 776 B.C. was corebus mile wreath made from the leaves of sacred olive tree was awarded to winner.
- b) **Summer Olympics / Modern Olympic Games:** Modern Olympic games started in 1896 in Athens (Greece). 16 June 1894 in Paris with 75 representatives of 13 countries conference headed by father of modern Olympic games (Baron Pierre De-Coubertin) decided to organized the Olympics in every four years. There time Olympics cancelled due to World War-I in 1916 & World War-II in 1940 & 1944. One time Olympic games postponed from July 2020 to the July 2021 due to World Pandemic Corona Virus held at Tokyo (Japan) Gold, Silver, Bronze medal with diploma awarded to winners. Paris and New York schedule for 2024 and 2028 Olympics.
- c) **Winter Olympics:** Major International multi sports event held once every four years for sports on snow and ice started in 1924, 2022 and 2026 olympic games schedule in Beijing (China) and Milan and Cortina (Italy).
- d) **Youth Olympic games:** Multi sports event organized by IOC in every four years. The first held in Singapore, 2010. Age limitation in 14 to 18. Both summer and winter games organized.
- e) **Para Olympics :** International multi sports events involving athletes with a range of disabilities. There are ten categories of disability recognized by International Paraolympics Committee, started by Sir Ludwig Guttman. The first time games organized in 1948 from small gathering of World War-II Veterans.
- f) **Special Olympics :** Special Olympics organization is recognized by the International Olympic Committee, is the world's largest sports organization for children and adults with intellectual disabilities and physical disabilities, begun in 1968 by Eunice Kennedy Shriver, the sister of former US President John F. Kennedy.

2.2 Olympic Symbol, Flag, Ideals, Objective & Value :-

Olympic Symbol :- According to Olympic Charter, the Olympic Symbol consists of five interlaced rings of equal dimensions (the Olympics rings). When use in five colour version, these colours shall be from left to right, blue, black and red rings are situated at the top. The yellow and green rings at the bottom. The Olympic symbol expresses the activity of the Olympic movement and represent the union of the five continents and the meeting of athletes from throughout the world at the Olympic Games.

Olympic Flag :- Olympic Symbol is also used as Olympic Flag of interlaced five rings with motto is 'Citius, Altius, Fortius and Together' means 'faster, higher, stronger and together'. Used first time in 1920 Olympics in Antwerp, made on the suggestion of Baron De Coubertin in 1913. Together word added in 'Tokyo 2020 Olympics' held in 2021 at Tokyo.



Olympism Ideals :- Olympism is Philosophy of life, ideals are Principle.

1. Balance the qualities of body and mind .
2. Harmonious development of humankind, promote society with Preservation of human dignity.
3. Organised, permanent action under International Olympic Committee (IOC).
4. Practice of sports is human right. Every Individual must have the possibility of practice sport.
5. The enjoyment of right without discrimination such as race, colour, language, religion etc.
6. The motto is 'Citius, Altius, Fortius and Together' means 'faster, higher, stronger and together'.

Olympism Objective:

The goal of the Olympic movement is to contribute to building a peaceful and better world by educating youth through sports practiced without discrimination of any kind and in the Olympic spirit, which require mutual understanding with a spirit of friendship, solidarity and fair play.

Olympism Values :

- Excellence • Respect • Friendship
- **Excellence :-** Means doing the best we can on the field of play or in Professional life. The important thing is not winning, but taking part, enjoy the healthy combination of body, will and mind.
- **Respect :-** This include respect for yourself and your body, for other people, for rules and regulation for sports and for the environment.
- **Friendship :-** Friendship is heart of Olympic movement. it encourages us to see sports as an instrument for mutual understanding between individuals and between people all over the world.

2.3 International Olympic Comittee (IOC)

The headquarters of Olympic Committee is situated at Lausanne, Switzerland. It was formed on 23 June, 1894 by Pierre, Baron De Coubertin. This committee is comprised of 103 active members and 32 honorary members. Its first president was a Greek named Demetrius Vikelas. Currently Thomas bach is president of IOC with 103 Active members currently, 02 honorary members are from India Ms. Nita Ambani and Mr. Narender Batra.

Mission and Role of the IOC

The mission of the IOC is to promote Olympism throughout the world and to lead the Otypmic Movement. The IOC's role is :-

1. To encourage and support the promotion of ethics and good governance in sport as well as education of youth through sport and to dedicate its efforts to ensuring that, in sport, the spirit of fair play prevails and violence is banned.
2. To encourage and support the organisation, development and coordination of sport and sports competitions.

3. To ensure the regular celebration of the Olympic Games.
4. To cooperate with the competent public or private organisations and authorities in the endeavour to place sport at the service of humanity and thereby to promote peace.
5. To take action to strengthen the unity of the Olympic Movement, to protect its independence, to maintain and promote its political neutrality and to preserve the autonomy of sport.
6. To act against any form of discrimination affecting the Olympic Movement.
7. To encourage and support elected representatives of athletes within the Olympic Movement, with the IOC Athletes' Commission acting as their supreme representative on all Olympic Games and related matters.
8. To encourage and support the promotion of women in sport at all levels and in all structures with a view to implementing the principle of equality of men and women.
9. To protect clean athletes and the integrity of sport, by leading the fight against doping, and by taking action against all forms of manipulation of competitions and related corruption.
10. To encourage and support measures relating to the medical care and health of athletes.
11. To oppose any political or commercial abuse of sport and athletes.
12. To encourage and support the efforts of sports organisations and public authorities to provide for the social and professional future of athletes.
13. To encourage and support the development of sport for all.

Indian Olympic Association

Indian Olympic Association was founded in 1927. Sir Dorabji Tata and Dr. Noehren became the founder President and Secretary General respectively. Sir Dorabji Tata was also the first member of IOC.

Its members are chosen once every four years. Now, Sh. Narendra Batra is the president of IOA.

Executive Council

- President (1)
- Vice President — (9)
- Treasurer (1)
- Executive Council Members (10)
- Senior Vice President (2)
- Secretary General (1)
- Joint Secretaries (6)
- Representative elected (1)

Objectives

- (i) Development and promotion of the Olympic movement.
- (ii) Enforcement of all rules and regulation of the International Olympic Committee and Indian Olympic Association.
- (iii) To be the official organizations in complete form and whole charge of all the matters related to Olympic event.
- (iv) Promotion and encouragement of the physical, moral and cultural education of the young people of the nation so that their character can be developed.
- (v) Admitting the membership of the stale Olympic Association and national sports federation for which submission of their annual reports and audited statement of accounts are necessary. These documents should be deposited to the IOA for information.
- (vi) To be a government organization and control the related matters.
- (vii) To undertake with assistance of national sports federations the financial management, transportation, maintenance and welfare of teams from India taking part in the Olympic games and other games which are organized under the patronage of IOC.
- (viii) To suggest the names of selected participants to participate in Olympic games.
- (ix) To take an ciplinary action against any federation for misbehavior or any other undesirable activity bringing discredit to the country.
- (x) In cooperation with the National Sports Federation/Associations IOA organizes and control selection, training, coaching of the teams that will represent India.

OBJECTIVE TYPE QUESTIONS (1 MARKS EACH)

Q.1. The Paralympic games are organised after the completion of -

- (a) Asian Games
- (b) SAF Games
- (c) Olympic Games
- (d) Common wealth Games

Ans. (c) Olympic Games

Q.2. I.O.C. was formed in -

- (a) 1886
- (b) 1894
- (c) 1892
- (d) 1880

Ans. (b) 1894

Q.3. Ancient Olympic Games were organised in the honour of God.

- (a) Hercules
- (b) Theondosis
- (c) Posedon
- (d) Zeus

Ans. (d) Zeus

Q.4. How many rings Olympic symbol has -

- (a) Three
- (b) Two
- (c) Five
- (d) One

Ans. (d) Five

Q.5. Where is the headquarters of IOC.

- (a) New York
- (b) Switzerland
- (c) Paris
- (d) France

Ans. (b) Switzerland

Q.6. Who is the first president of Indian Olympic Association (IOA)?

- (a) Sir Dorabji tata
- (b) Jawaharhal Nehru
- (c) Sardas vallabh Bhai Patel
- (d) M.K. Gandhi

Ans. (a) Sir Dorabji Tata

Q.7. When was I.O.A. established?

- (a) 1937
- (b) 1935
- (c) 1925
- (d) 1927

Ans. (d) 1927

Q.8. When was the first special Olympics held.

- (a) 1966
- (b) 1968
- (c) 1970
- (d) 1972

Ans. (b) 1968

Q.9. Who is known as the father of modern Olympics?

- (a) Prof Jigaro kano
- (b) Sir Dorabji Tata
- (c) B. Coubertin
- (d) Joce Rogges

Ans. (c) Perrie berron de coubertin

SHORT TYPE QUESTIONS (02 MARKS)

Q.1. Does Olympic symbol ring colour represent particular continent?

Ans. No, The coloured rings do not represent any Continent Individually (for e.g some believe Red to America) as erroneously believed by some people. Nothing has written about this in Olympic charter.

Q.2. What is Olympic Oath?

Ans. At the beginning of the game, the host country representative will take oath on behalf of all participating athletes. That is “we swear that will take part in the Olympic games in loyal competition respecting and abiding by the rule which govern them without the use of doping and drugs in the true spirit of sportsman ship for the glory of sports and the honour of our teams”. The flag bearers of the competing nations also take up their positions at the time of oath taking ceremony.

03 MARKS QUESTION (TYPE)

Q.1. Differentiate between Para-Olympics and Special Olympics

Para Olympics

1. Recognize by International Paraolympic Committee (IPC)
2. The movement started by Sir Ludwig Guttman in 1948
3. Only international (limited domestic Competition)
4. Usually for 18 years old

Special Olympics

1. Recognize by International Olympic Committee (IOC)
2. The movement started by Eunice Keneddy Shriver in 1968
3. Local and international type of competition
4. Usually for 6 years and old

05 MARKS QUESTION (TYPE)

Q.1. Differentiate and similarities between Ancient and Modern Olympics

Ans.

Ancient	Modern
1. Held only at Olympia in Greece	1. Held at different cities of the world.
2. Participant must be free born Greek	2. Participant shall be natural born of member country.
3. Religious festival for Greek in the Honour of God Zeus	3. International Sports gathering for peaceful and better world.
4. Conduct for five days.	4. Conduct for sixteen days.
5. Once in four year with Amateur Players	5. Once in four year with Amateur Players.

Q.2. Give a brief account of the ancient Olympic Games.

Ans. The Sports was by no means a Greek invention. Despite severe condition of life; athletes down the history, men found time to enjoy a variety of sports. According to available history, the first ancient Olympic games were started in Olympic valley in 776 B.C. at that time that the games were held in honour of God Zeus, later on. Hercules, started the games and sports in the honour of his father. Although there was a lot of stories about the origin of ancient Olympic games. According to some other learned person there was wrestling competition between God Zeus and God Koronus in which the organization of games and sports was started. Whatever the reason behind the beginning of the game Olympic game was in beautiful valley named Olympia, due to this feet these games were called Olympic Games. During the games period or month any war or dispute might be taking place, would be stopped at once and a truce would be declared.

The games were conducted in following way:

- | | | |
|---------------------|-------------|---------|
| 1. Opening Ceremony | 2. Assembly | 3. Oath |
| 4. Events | 5. Awards | |

The Ancient Olympic Games continued and was held for approximately thousand years. In 394 A.D. The king of Rome stopped the organization of games, Stadiums were destroyed and revived after many decades, that called Modern Olympic Games.

MIND MAPPING

The ancient Olympics were held every four years during a religious festival honoring located near the western coast of the Peloponnese peninsula in southern Greece.

1. OLYMPICS

ANCIENT OLYMPICS (BEFORE 1896)

History can be traced back to 776 B.C., held every fourth year which continued for nearly 12 centuries, until Emperor Theodosius ordered in 393 A.D. to ban the Olympic Games.

The Games and Religion :- The Olympic Games were closely linked to the religious festivals of the worship of Zeus.

The Games

Initially one-day event until 684 BC, when extended to three days. In the 5th century B.C., the Games were extended again to cover five days. Included running, long jump, shot put, javelin, boxing, pankration and equestrian events. All free male Greek citizens could participate but married women were not allowed.

Victory Ceremonies

The first Olympic champion listed in the records was Cophylus of Elis, a cook, who, won the sprint race in 776 B.C. Hellanodikis placed the sacred olive tree wreath, called kotinos, on the winner's head.

Rules of Ancient Olympics

1. Free born Greeks.
2. Amateurs were allowed to participate.
3. The competitors must have at least 10 months of training prior to their participation

2. MODERN OLYMPICS (AFTER 1896)

Baron Pierre De Coubertin (1863 -1937) of France, is the "**Founder of the Modern Olympic Games**". On April 6th 1896, after a gap of 1503 years, 80,000 Athenians witnessed the modern Olympics. 14 nations sent their representatives to Athens and 241 athletes competed in 43 events.

Olympic Governing Body: International Olympic Committee is the supreme controlling body for the modern Olympic games formed on June 25th 1894. The headquarters of I.O.C. are located at Lausanne (Switzerland).

From India, Sir Dorabji Jamshedji Tata in 1920, Mr. G.D. Sondhi in 1932 and Raja Bhaiendra Singh in 1947, had the honour of being members of I.O.C.

3. SUMMER OLYMPIC GAMES

First held In 1896 are held every four years.

Eighteen countries have hosted the Summer Olympics.

4. WINTER OLYMPIC GAMES

Played once every four years on snow and ice. The first Winter Olympics, the 1924 Winter Olympics, was held in Chamonix, France. The original five sports (broken into nine disciplines) were bobsleigh, curling, ice hockey, Nordic skiing (consisting of the disciplines military patrol, cross-country skiing, Nordic combined, and ski jumping), and skating (consisting of the disciplines figure skating and speed skating).

5. PARALYMPICS

International multi-sport event for athletes with a range of physical disabilities. First held in Rome, Italy in 1960 featuring 400 athletes from 23 countries. Since then they have taken place every four years. On 22 September 1989, the International Paralympic Committee was founded.

6. SPECIAL OLYMPICS

Olympic-type sports for children and adults with intellectual disabilities.

HISTORY

The Special Olympics was founded in 1968 by Eunice Kennedy Shriver. First International Special Olympics Summer Games were held at Soldier Field in Chicago in 1968. About 1,000 athletes with intellectual disabilities from the USA and Canada competed.

7. OLYMPIC SYMBOLS, IDEALS, OBJECTIVES AND VALUES OF OLYMPISM

7.1 OLYMPIC SYMBOLS

The Olympic symbol consists of five interlaced rings of equal dimensions (the Olympic rings), used alone, in one or in five different colours (blue, yellow, black, green and red.)

7.2 OLYMPIC FLAG

Flag consists of a white field bearing five equal interlocking rings of blue, dark yellow, black, green, and red with separations wherever two rings intersect. The width to length ratio of the flag is 2 : 3.

7.3 OLYMPIC TORCH OR FLAME

Introduced at the 1928 Olympics in Amsterdam. Ignited several months before Olympics in Olympia and continues to burn throughout the Olympics till the closing ceremony.

7.4 OLYMPIC TORCH RELAY

It emphasizes the ancient source of the Olympics and the internationalism of the modern Games and is recognized as a symbol of peace.

7.5 OLYMPIC MOTTO

The Olympic motto is made up of three latin words – “Citius, Altius, Fortius” and one English word ‘Together’ means – “Faster, Higher, Stronger and Together”.

7.6 OLYMPIC OATH

New Oath Effective From Sydney Olympics-2002: "In the name of all the competitors I promise that we will take part in these Olympic games respecting and abiding by the rules which govern them without the use of doping and drugs in the true spirit of sportsmanship for the glory of sport and the honour of our teams."

7.7 AWARDS

Medals are awarded immediately after the event is over. The first position holder stands in the centre at a higher level platform. The second position holder will be on the right hand side of the 1st place holder and the third position holder will stand on the left hand side of 1st position holder.

7.8 OLYMPIC IDEALS

The important thing in the Olympic Games is not to win but to take part with true spirit of sportsmanship. The important thing in life is not the triumphs but the struggles. The essential thing is not to have conquered but to have fought well.

7.9 OLYMPIC OBJECTIVES

1. Promote intellectual, physical and moral education and welfare.
2. Improve physical and mental health through physical activities and recreation.
3. Co-operate with all national and international voluntary and other organizations.
4. Stimulate interest in physical activities.
5. Promote better understanding and goodwill among various nations.
6. Develop the personality, character, better citizenship qualities and fit & healthy life style.
7. No discrimination on the basis of caste, race and religion.

8. VALUES THROUGH OLYMPICS MOVEMENT

- (i) Friendship
- (ii) Solidarity
- (iii) Fair Play
- (iv) Free of Discrimination

9. INTERNATIONAL OLYMPIC COMMITTEE

Not-for-profit independent international organization, created on 23 June 1894, supreme authority of the Olympic Movement.

COMPOSITION OF THE COMMITTEE

President: Elected for eight years.

Vice-President: 4 vice presidents, term of four years.

Executive Board: 15 members, includes IOC president, four vice presidents and 10 members, term of four years.

The Functions of the Executive Board of LOX.

1. Organise conferences and prepare annual report.
2. Recommend names of new members to the I.O.C. for nomination.
3. Controls finances.

10. INDIAN OLYMPIC ASSOCIATION (I.O.A.)

Formed in 1927, Sir Dorabji Tata - founding President and Dr. A.G. Noehren - Secretary.

Primary mission - Develop, promote and protect the Olympic Movement in the country.

Composition of Indian Olympic Association (I.O.A.)

(a)	President	:	1
(b)	Sr. Vice President	:	2
(c)	Vice President	:	9
(d)	Secretary General	:	1
(e)	Treasurer	:	1
(f)	Jt Secretaries	:	6
(g)	Exco. Members	:	10
(h)	IOC Member	:	1
(i)	Athletes Commission Representative	:	1

Powers of I.O.A.

Disciplinary actions against any member unit or Association

Disciplinary Action Against a Sportsperson, Official or Coach.

Unit - 3

Physical Fitness, Wellness and Lifestyle

Main Point :-

- ✍ 3.1 Meaning and Importance of Physical Fitness, Wellness and Lifestyle
- ✍ 3.2 Components of Physical Fitness and Wellness
- ✍ 3.3 Components of Health Related Fitness

3.1 Meaning and Importance of physical fitness, wellness and lifestyle

Physical Fitness:- Physical fitness means the capacity to do the routine work without any fatigue or exertion and after doing the work the person has power to do some more work and recovery is quicker.

Wellness:- Wellness is the capacity of an individual by which he leads a well balanced life.

Lifestyle:- A way of life style of living that reflects the attitude and values of a person of group.

Importance of Physical Fitness

1. **To live a long and healthy life:** A physically fit person not only lives a healthy life but also a longer life.
2. **To increase the energy, power and capacity of the body:** A physically fit person can do his routine work without undue fatigue. The strength and capacity is increased because of internal energy due to which he can perform extra curricular task after finishing the routine work. For *e.g.*- entertainment, aerobics, dance, gardening, etc.
3. **To reduce the probability of getting a disease:** Due to the physical fitness, important parts of the body, such as heart, lungs and brain remain strong and there is a less probability of getting disease because of the continuous activity of these parts.
4. **For strong and active muscular and skeletal system:** Due to the physical fitness, a person can do any physical activity with ease, posture is maintained, muscles and bones stay strong, joints and muscles have flexibility and body posture looks toned and attractive.
5. **To increase the memory and recall capacity of mind:** Physical fitness also affects the mind of a person. A physically fit person has higher recall capacity and memory.
6. **To improve mental health:** Physical fitness improves mental health as well. It leads to increase in self confidence and positive body image.
7. **To get rid of excess fat:** Due to the physical fitness, a person is always active. Due to this activeness, the fat in the body continuously get converted into energy which does not allow the fat to accumulate in the body.

- 8. To live a happy life:** Physical fitness is also necessary for enjoyment and happiness of mind. A fit person remains happy and joyful which increases his self-confidence and positive body image.

Importance of Wellness

- 1. To live a high quality life:** Wellness increases the quality of life of a person. A capable and healthy person can experience more enjoyment by participating in games and sports and working with other people.
- 2. To achieve the maximum growth and development:** Wellness is helpful in growth and development of a person. The growth and development of a healthy person can happen easily without any diseases.
- 4. To be a good citizen:** A capable person knows how to balance his rights and duties because of which he can become a good citizen of the country.
- 5. To live a stress-free life:** If a person is physically and mentally fit, then the negative thoughts like stress, tension and anxiety cannot affect him. If the negative thoughts come, then he can manage these emotions very well. These people are capable of living a balanced life.
- 6. To enjoy the life:** A capable person has the full knowledge of his physical, mental, spiritual and social capabilities. That's why a capable person lives his life joyfully. Wellness is important for enjoying the life and happiness of mind.
- 7. To be an active member of the society:** Wellness provides the opportunities to a person to attach with the society and the environment. A capable person actively participates in the social activities. Wellness motivates the moral behaviour of a person which is very important to live in the society.

Importance of Healthy Lifestyle

- 1. Increases the Level of Physical Fitness:** Physical fitness helps in better co-ordination with muscles so that there may be an increase in flexibility, tolerance, etc. of the body. This makes a person's life simple and easy and a lot of improvement takes place in the quality of life.
- 2. Increases Longevity:** Healthy lifestyle leads to have a healthy body. It helps delay the old age quite late. The risk of diseases can be minimized and a man's age lengthens.

3. **Prevents Cardio-Vascular Disease:** Healthy lifestyle protects our body from cardio-vascular diseases. It leads to a reduction of extra fat from our body. Thus the heart becomes strong. It leads to improve the blood circulation in the body.
4. **Helps in Reducing Depression:** Due to healthy lifestyle the level of hormones leading to the regularity of the state of body increases. As a result the person is at a minimum risk of plunging into depression.
5. **Increases Energy Level:** Due to healthy lifestyle a person feels more energized and rejuvenated. As a result, he can do most of the work devotionally and successfully.
6. **Increases Self-Confidence:** Due to healthy lifestyle a person develops more awareness and self-confidence and it also helps in building mental toughness.
7. **Helps in Coping with Stress:** Due to healthy lifestyle one's psychological strength gets a boost. It leads to a reduction in stress, pressure and worry. So, it helps in developing mental health as well.
8. **Improves Posture:** Healthy lifestyle improves an individual's posture and as results into the minimum risk of getting hurt. Improved posture helps in making body beautiful.

We can say that healthy lifestyle keeps our body away from cancer, diabetes, blood pressure, etc. It also leads to an increase in a person's self-confidence and also contributes various diseases like positively to an all-round development of an individual.

3.2 Components of Physical Fitness and Wellness

Components of Physical Fitness:-

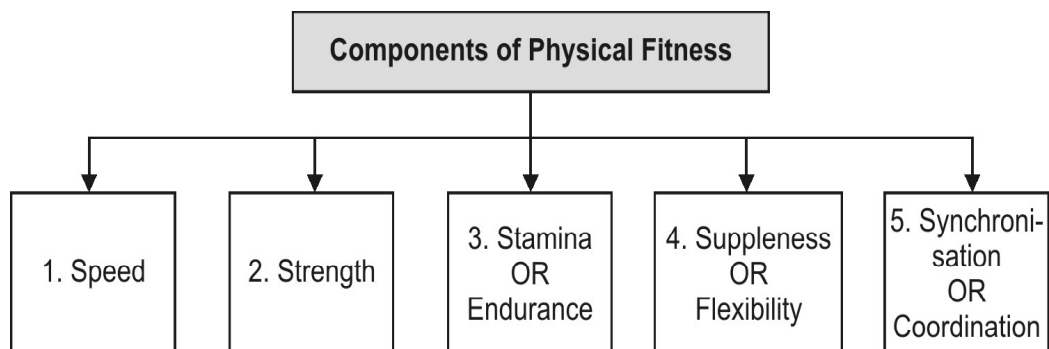
For the overall development of fitness. It is necessary to know the different kinds of fitness required for specific programmes. Physical fitness can be divided into three main areas:-

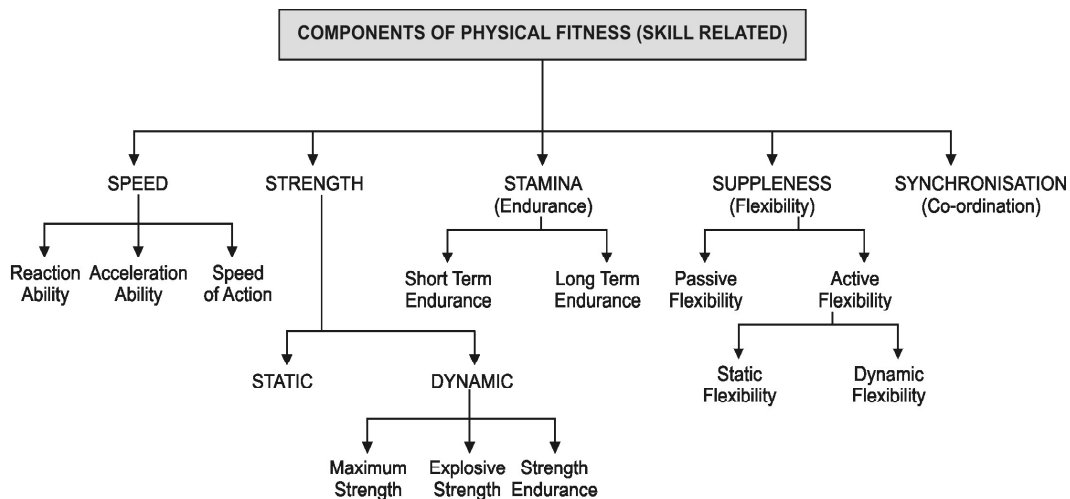
- Skill Related Fitness
- Health Related Fitness
- Cosmetic Related Fitness

The difference between three categories of fitness is given below:

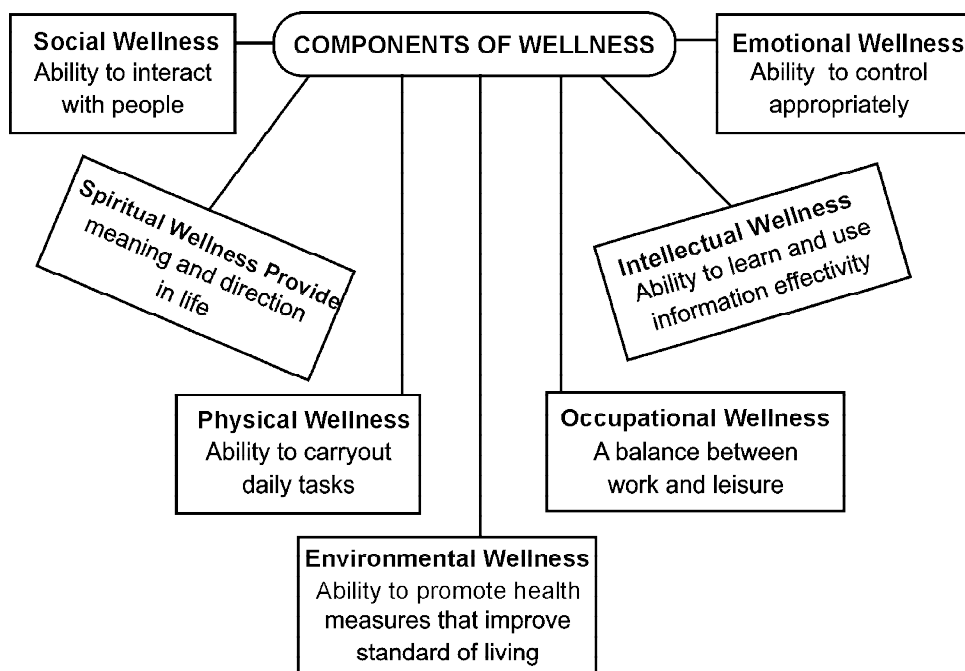
Skill Related Fitness	Health Related Fitness	Cosmetic Related Fitness
Important in the performance of specific functional motor tasks.	Ingredient in the national public health agenda.	For many people, looking good is an important outcome of fitness activities.
Important in sport performance and in certain kinds of job performance that require physical skill and strength.	Important for prevention and remediation of disease and illness, both physical and mental.	Looking fit is in and looking strong is an important part of looking fit. This is true for both men and women.
Being able to carry out the special skills that are a necessary part of certain sports or activities that can help in becoming physically fit involve one or more parts of skill related fitness. It is more functional and specific.	It applies to everyone and is a general concept. Each should achieve and maintain certain levels of health fitness to stay as healthy as possible throughout a lifetime and to improve the quality of life.	Cosmetic fitness is fine as long as it takes place in an educational environment where acceptance of different body shapes is the norm or the criteria.

Physical fitness has five components; which measures the physical fitness of a person. Various experiments have been conducted to measure the physical fitness of a person. Various exercises have done to develop these components. The five components of physical fitness may also be called by 5 'S' of Physical Fitness which are as follows:

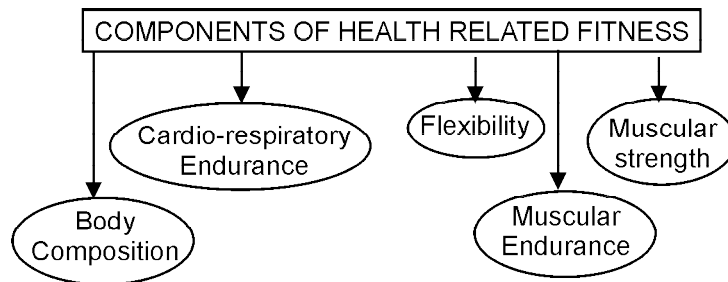




COMPONENTS OF WELLNESS



3.4. Components of Health Related Physical Fitness



MIND MAPPING

Physical Fitness: Ability of a person to do daily routine work without fatigue.

Wellness: Wellness is the ability of an individual to live a mentally, physically, socially and emotionally balanced life.

Lifestyle: Lifestyle is a way of living of individuals, families and societies which they manifest in coping with their physical, psychological, social and economic environments on a day to day basis.”

1. IMPORTANCE OF PHYSICAL FITNESS

1. Increase Your Chances of Living Longer
2. Strengthen Your Bones and Muscles
3. Improve Your Mental Health and Mood
4. Exercise Controls Weight
5. Exercise Boosts Energy
6. Exercise can be Fun

2. IMPORTANCE OF WELLNESS

1. Healthy Active Living
2. Improves Health
3. Become Active Member of Society

4. Achieve Optimum Growth and Development
5. Healthy and Happy Life

3. IMPORTANCE OF HEALTHY LIFESTYLE

1. Improvement in Abilities
2. Reduces Health Problems
3. Better Management of Stress and Tension
4. Increases Self-Confidence
5. Increases the Level of Energy
6. Better Posture
7. Helps to Reduce Depression

4. COMPONENTS OF PHYSICAL FITNESS

(i) Strength: Ability of muscles to overcome the resistance. Strength can be divided into two parts:

1. Static Strength
2. Dynamic Strength
 - (a) Maximum Strength
 - (b) Explosive Strength
 - (c) Strength Endurance

(ii) Endurance : Ability to continue or sustain the work or activity for a long duration.

Types:- (a) Anaerobic Endurance (b) Aerobic Endurance

(iii) Speed: Ability to perform same pattern of movement at faster rate.

- (a) Reaction Time Ability
- (b) Movement Time Ability
- (c) Acceleration Ability
- (d) Speed Endurance Ability
- (e) Locomotor Ability

(iv) Flexibility: Maximum range of movement possible at a joint.

(a) Passive Flexibility

(b) Active Flexibility

1. Static Flexibility

2. Dynamic Flexibility

(v) Co-ordinative Abilities : To do or perform a work activity efficiently with perfection.

5. COMPONENTS OF WELLNESS

1. Physical Wellness

2. Social Wellness

3. Intellectual Wellness

4. Emotional Wellness

5. Spiritual Wellness

6. Occupational Wellness

7. Environmental Wellness

8. Nutritional Wellness

9. Financial Wellness

6. COMPONENTS OF HEALTH RELATED FITNESS

(i) Cardio-respiratory endurance

(ii) Muscular Strength

(iii) Muscular Endurance

(iv) Body composition

(v) Flexibility

OBJECTIVE TYPE QUESTIONS (1 MARKS EACH)

Q.1 How many components of physical fitness have?

- (a) Five
- (b) Four
- (c) Three
- (d) Six

Ans. (a) Five

Q.2 What is the another name of synchronisation?

- (a) Speed
- (b) Coordination
- (c) Strength
- (d) Endurance

Ans. (b) Co-ordination

Q.3 What is the suppleness called in another words.

- (a) Speed
- (b) Strength
- (c) Endurance
- (d) Flexibility

Ans. (d) Flexibility

Q.4 The percentage of fat, bone, water and muscle in human body is called.

- (a) Muscular endurance
- (b) Muscular strength
- (c) Body composition
- (d) Flexibility

Ans. (c) Body composition

Q.5 The ability to overcome resistance for longer duration is called:

- (a) Speed
- (b) Strength
- (c) Endurance
- (d) Flexibility

Ans. (c) Endurance

Q.6 The ability of body to execute movements with greater amplitude or range is called ?

- (a) Stength
- (b) Flexibility
- (c) Body composition
- (d) Stamina

Ans. (b) flexibility

Q.7 The ability to overcome resistance is called?

- (a) Muscular strength
- (b) Muscular endurance
- (c) Flexibility
- (d) Body composition

Ans. (a) Muscular strength

Q.8 The aim of health related fitness is to prevent.

- (a) Power
- (b) Way
- (c) Capacity
- (d) Diseases

Ans. (d) Diseases

Q.9 Given below are two statements labelled Assertion (A) and Reason (R) :-

Assertion (A) : Paralysed people can not move their body parts.

Reason (R) : They have lost the capacity to produce strength

In the context of above two statements, which one of the following is correct?

- (a) Both (A) & (R) are true, but (R) is not the correct explanation of (A).
- (b) Both (A) & (R) are true, but (R) is the correct explanation of (A).
- (c) (A) is true, but (R) is false.
- (d) (A) is false, but (R) is false.

Ans. (a)

Q.10 Match List-I with List-II and select the correct answer from the code given below :-

List-I

List-II

- | | |
|------------------------|---|
| (A) Static Strength | (i) Ability to overcome resistance with maximum or high speed. |
| (B) Maximum Strength | (ii) Ability of muscles to act against maximum resistance |
| (C) Explosive Strength | (iii) Ability of an individual to overcome resistance under fatigue conditions. |
| (D) Strength Endurance | (iv) Ability of muscles to act against resistance in static position. |

Option	Code			
	(A)	(B)	(C)	(D)
(a)	(iv)	(iii)	(i)	(iii)
(b)	(i)	(ii)	(iii)	(iv)
(c)	(iii)	(iv)	(ii)	(i)
(d)	(ii)	(i)	(iv)	(iii)

Ans. (a)

SHORT TYPE QUESTION (3 MARKS EACH)

Q.1 Briefly explain the importance of wellness.

Ans. Importance of wellness:

- (1) It help in the improvement and tonning up the muscle.
- (2) It reduces the recovery time after injury or illness.
- (3) It help in fulfilling proper nutritional requirements.
- (4) It helps in better management of stress and tension.
- (5) Regulates and improves overall bodyfunction.
- (6) Motivate positive lifestyle habits or changes.
- (7) It helps people to meet the challenges of life and also unforeseen situation as and when required.

Q.2 Describe the importance of healthy positive lifestyle.

Ans. Importance of healthy/ positive lifestyle are-

- (1) **Increase the longevity:** A healthy lifestyle increases the longevity. It slows down the ageing process and helps the older person to stay strong and healthy.
- (2) **Increase the level of energy:** An individual with a healthy lifestyle feels more energetic which means more productivity in day to day living.
- (3) **Helps in reducing depression:** Healthy lifestyle helps in accomplishing a healthy body which in turn elevates hormone level in the body that regulates the mood.
- (4) **Increase the level of Physical fitness:** Physical fitness helps in better cordination of muscles and an increase in strength, flexibility and endurance.
- (5) **Increase self confidence:** Level of fitness of individual tends to become more self confident and self aware.
- (6) **Helps in coping with stress:** Healthy life style enhances the Psychological power of an individual to cope with the stress as well as anxiety.

Q.3 Discuss 'healthy diet' as a component of positive lifestyle.

Ans. Healthy diet or good nutrition is one of the main components of positive lifestyle. In fact, a healthy diet of good nutrition is necessary to lead a healthy or positive lifestyle. The basic of a healthy diet are lots of fruits and vegetable, whole grain food and low fat dairy products. Such diet required everyday in order to maintain the adequate amount of vitamins nutrients and minerals needed to maintain a healthy body. That is why it is rightly said that to eat is a necessity but to eat intelligently is an art.

LONG TYPE QUESTIONS (5 MARKS EACH)

Q.1 Enumerate the factors affecting physical fitness and wellness in detail.

Ans. The following factors usually affect the physical fitness and wellness of an individual:

1. **Regular exercise:** It is the most important factor which affects the physical fitness of an individual.
2. **Amount of Training:** The amount of training also affects the physical fitness. If the amount of training is not upto desirable level he will be incapable of improving his physical fitness. It should be increased slowly.
3. **Rest and Relaxation:** It also affect the physical fitness of an individual. If proper rest and relaxation are taken, there will be positive effect on the physical fitness of an individual.
4. **Stress and Tension:** It tend to have a negative effect on physical fitness and wellness. Stress and tension decreases the psychological power of on individual.
5. **Age:** It is also one of the major factors which affects the physical fitness and wellness of an individual.
6. **Gender:** It also affects the level of physical fitness and wellness. Infact there are anatomical, physiological, and psychological difference between males and females.
7. **Environment:** The environment, which includes climate, temperature, altitude, social, and cultural factors affect the physical fitness and wellness of a person.

8. **Diet:** It also influence the level of physical fitness and wellness. Good diet helps not only in maintaining the physical fitness but it also improves the level of physical fitness.

Q.2 How can health threat be prevented through lifestyle change? Discuss in detail.

- Ans.**
1. **Regular Physical Exercise:** It helps in preventing obesity, high blood pressure, heart diseases, stroke, diabetes, some types of cancer, constipation, depression and other healthy threats.
 2. **Healthy eating habits:** Healthy eating habits can help the individuals in preventing as well as controlling the disease such as high blood pressure, heart disease, diabetes, osteoporosis, muscular degenerating renal stones, dental diseases and including certain type of cancer.
 3. **Limit T.V. Watching:** Watching T.V. for a number of hour regularly is associated with increased various research studies.
 4. **Quit Smoking:** Quitting smoking is significant for a healthy lifestyle. Infact smoking, use of tobacco in any form increases the blood pressure which may cause stroke and coronary artery disease.
 5. **Sufficient sleep:** Sufficient sleep is also very significant part of a healthy lifestyle.
 6. **Prevention of injury:** Prevention of various types of injuries owing to fatal accidents plays a vital role in maintaining a healthy lifestyle.
 7. **Limit the amount of alcohol:** To use alcohol in limited amount is also an important part of healthy lifestyle.

Q.3 Explain the component of physical fitness?

Ans. There are five physical fitness components they are:

1. **Speed :** It is ability fo perform movement at a faster rate or it is the ability to perform movement in a short period of time and sports e.g. practicing with faster rhythm, speed endurance, repetition method acceleration runs etc.
2. **Strength :** It is an ability of muscle to overcome or to act against resistance exercise, pushups etc.

3. **Endurance :** It is the ability to sustain or continue activity. It is the ability to rest from fatigue. It is one of the important components for middle and long distance races and it is required for almost all major games like football, hockey and basketball.
4. **Flexibility :** It is the capacity of a muscle to extend without any damage. Flexibility is measured by range of motion around a joint. It is affected by muscle length, joint structure and other factors, it is measured through flexometer.
5. **Co-ordinate ability :** It is the ability of the body to perform movement with perfection and efficiency. In other words it is ability to change movement or direction in the shortest time without getting disbalanced.

Q.4 Narrate the components of positive lifestyle in detail?

Ans. Positive healthy lifestyle is the most valuable source of reducing the incidence and impact of a number of health problems, for recovery, for coping with life stressors and for improving the quality of life.

1. **Healthy Diet:** Healthy Diet or good nutrition is one of the main components of positive lifestyle. In fact, a healthy diet is necessary to lead a healthy life of good positive lifestyle.
2. **Physical Activity:** It is another component of positive life style. Regular physical exercise is needed to maintain a healthy weight and to enhance strength and flexibility of the body.
3. **Stress Management:** Stress can be managed properly through meditation and relaxation techniques only.
4. **Socialization :** An individual should develop good social relations with his fellows and neighbours. He should pay visits to his home from time to time. Such relations strengthen the social bond among them.
5. **Personal Hygiene :** Stress should be laid on personal hygiene such as cleanliness and proper care of eyes, nose, ears, throat, hair, teeth, etc.
6. **Proper Sleep:** Lack of sleep may cause exertion or fatigue. It also causes the body to release Cortisol which further leads to heart diseases. So it is significant to have proper and sound sleep for healthy lifestyle.

Q.5 Describe the components of wellness?

Ans. Components of wellness:

1. **Physical Activity :** It makes the person fit and active. It improves various system of body and improves our health. It also improves our growth and development.
2. **Balanced Emotional life:** Wellness requires balanced emotional life and release of emotions. More over it should be under control.
3. **Intellectual Attitude:** Wellness requires positive intellectual attitude. It improves our behaviour, intelligence, alertness, futuristic and insight thinking.
4. **Spiritual wellness :** It makes the person ethically good, morally good, peaceful more over guides the value of life.
5. **Occupational wellness :** It makes the person to be hard worker and earn the livelihood with honesty. It helps to achieve the balance of work and leisure and gives satisfactions.
6. **Managing Stress :** Wellness needs the proper management of stresses and tension of life. It keeps us calm and controls our anxiety.

Q.6 Enlist the different components of Health related fitness and explain them in detail?

Ans. There are following components of Health related fitness:

- (1) Body composition
- (2) Cardio-respiratory Endurance
- (3) Flexibility
- (4) Muscular Endurance
- (5) Muscular strength

1. **Body Composition:** The body composition means the amount of the fat-free body weight. It is well known that a high percentage of body fat in relation to the total body weight is harmful and may lead to obesity from the health point of view, the normal percentage of body fat for young men and women should not exceed 15 and 25 percentage. It means that for health related fitness an individual should have ideal body weight and fat percentage.

2. **Cardio-Respiratory Endurance:** It is the maximum functional capacity of the cardio-respiratory system to carry on the work or Physical activity involving large muscle group over an extended period.
3. **Flexibility:** Flexibility is the range of movements of joints. It is important for all individuals in daily life. It can be classified into passive flexibility and active flexibility. Active flexibility can be further classified into static flexibility and dynamic flexibility.
4. **Muscular Endurance:** Muscular endurance is the ability of a muscle or group of muscles to repeat muscular contractions against a force or to carry on contraction over a maximum period.
5. **Muscular Strength:** Muscular strength is the maximum amount of force that can be exerted by a muscle group against a resistance during a single contraction.

Unit - 4

Physical Education and Sports for CWSN

Main Point :-

- ✍ 4.1 Aims and objectives of adaptive physical education
- ✍ 4.2 Organisations promoting adaptive sports (Special Olympic Bharat, Paralympics, Deaflympics)
- ✍ 4.3 Concept of Inclusion, its need and implementation
- ✍ 4.4 Role of various professionals for children with special needs (School counsellor, occupational therapist, physiotherapist, speech therapist, special education, and physical education teacher.

4.1 AIMS AND OBJECTIVE OF ADAPTIVE PHYSICAL EDUCATION

Concept:- Adaptive physical education is a sub discipline of physical education, which is adapted or modified for the children, who are differently abled, handicapped, mentally challenged, hear impairment, speech unpairment, blindness, orthopedic unpairment, and autism etc. The programme of adaptive physical education involves specially designed programme of physical fitness, motor fitness, fundamental moter skill, aquatic skills dance skills, individual and group games. To meet the unique need of children with disabilities.

Adaptive physical education is a multikind of service for the children who are not able to do the activity like a normal children, such children may be provided modified sports and games, which can play an important role in their lives i.e, recreation, fitness, development, ethical and moral values etc.

Meaning:- A diversified programme of developmental activities, games and sports, suited to interests, capacities and limitations of the students with their disabilities are called adaptive physical education.

Aims:- To provide all students with special needs, regardless of their desirability, the opportunity to participate in physical education, safely and successfully, in the least restrictive environment.

Objectives:-

- (i) To provide physical education services.
- (ii) To develop self esteem.
- (iii) To develop motor skill.
- (iv) To develop knowledge of body mechanics
- (v) To increase active participation in sports
- (vi) To develop physical fitness
- (vii) To develop socialization skill
- (viii) To promote sportsmanship.

4.2 ORGANIZATIONS PROMOTING ADAPTIVE SPORTS

(Special Olympics Bharat, Paralympics, Deaflympics)

1. Special Olympics:- Special Olympic international was started by Eunice Kennedy Shriver. Special Olympic Bharat is recognized by the government of India as a National sports Federation for the development of sports opportunity for the people with intellectual disabilities. First, it was founded in 1987 as special Olympic India and changed to special Olympics Bharat in 2001. At national level, they are trained to participate 24 single and other team games by the sports authority of India (SAI). This organization was established in 2001 as per the act of 1982.

Aims and Objectives:-

- (i) Holistic development and training.
- (ii) Creating role models for motivation.
- (iii) Training teachers.
- (iv) Ensuring involvement of whole community
- (v) To reflect the olympic movement values, standards, ceremonies and events.

OATH:- “Let me win. But if I can not win, let me brave in the attempt.”

Mission:-

- (i) To provide year round sports training and athletic competitions.
- (ii) Social acceptance of people with intellectual disabilities.
- (iii) Encourage athlete to compete in regular sports activities.

2. Paralympics:- Paralympics games are a major sports international multi-sports events for the athletes with a range of physical disabilities involving impairment muscles power, impaired passive range of movement, limb deficiency, leg length difference blindness and cerebral palsy etc. The first paralympic games were held in Rome (Italy). The headquarter of International Paralympics games is situated in 'Bonne' (Germany). The founder Dr. Ludwig Guttmann.

Paralympics Committee of India (PCI):

Paralympics committee of India is a non-partisan, non-profitable organization, dedicated for the development of physically challenged sportspersons. Paralympics committee of India was established in 1992 by the M. Mahadeva and others.

Aims and objectives:-

- (i) To develop sports opportunities.
- (ii) To develop opportunities at all levels and in all structures.
- (iii) To promote the self governance of each paralympic sports federation.
- (iv) To ensure the spirit of fair play.

3. Deaflympics :- The deaflympics are an international Olympic committee sanctioned event at which deaf athletes compete at an elite level. The deaflympics are held once in four years. The first, Paralympics games were held in 1924 Paris (France).

The All India Sports Council of the Deaf, New Delhi, which is the national apex body for deaf sports. The athlete who has a hearing loss of at least 55 dB in their better ear is allowed to participate in deaflympics, hearing aid, cochlear implants etc, are not allowed to be used in the competition.

The deaflympics, can not be guided by the sounds i.e the starter's gun, bull horn commands or referee whistles etc. deaflympics guided by so alternative methods can be used to address the athletes the football referees wave a flag instead of blowing a whistle, on the track races are started by using a light instead of using starting gun.

Summer Deaflympic		
Year	Host city	Country
2013	Sofia	Bulgaria
2017	Samsun	Turkey

Winter Deaflympics		
Year	Host city	Country
2015	Khanty- Mansiyak	Russia
2019	Torino	Italy

4.3 CONCEPT OF INCLUSION, ITS NEED & IMPLEMENTATION

Concept of Inclusion:- The term inclusion is used in the field of education so that it is called as inclusive education. It is new approach towards educating the children with disability and learning difficulties with of normal ones with in

Concept and need of inclusive Physical Education

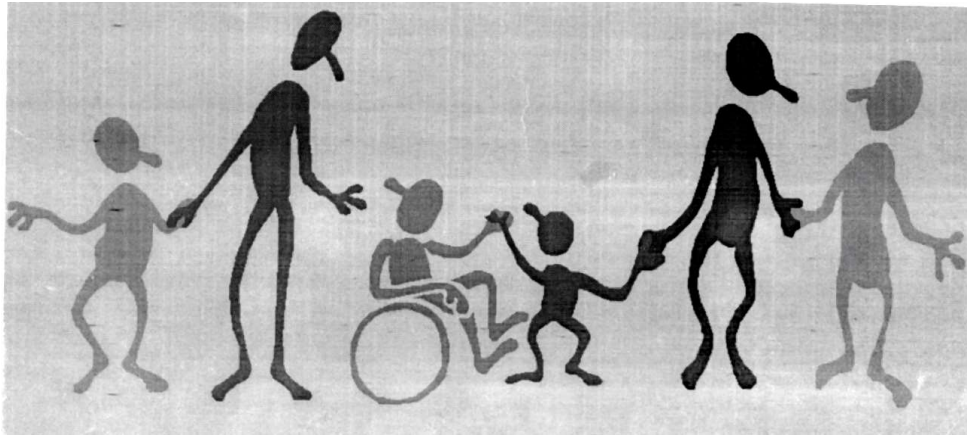
Inclusive Physical Education using physical activities and games to teach other subjects. This is a new concept in the field of Physical Education. Research and studies have shown that integrating two or more subject at areas can stimulate the interest of students and hence promote the learning of each subjects. Teachers are increasing conducting activities both inside and outside the classroom to teach various concepts of Science, Social science and Mathematics etc.

Inclusive physical education is a comprehension concept. It is not only limited to physical activities, games and sports but has become a complete discipline within the past two decades the knowledge in this field has increased tremendously. Due to research works, various subdisciplines such as sports sociology, sports Biomechanics, Sports medicine, sports pedagogy, Exercise Physiology, Sports Psychology, Sports Philosophy and sports management, etc. Inclusive physical education lays emphasis on multidisciplinary learning in the integration of its subdisciplines.

Inclusive physical education provides opportunities for students to see new relationships, to transfer what they have learnt from are setting to the next and to reinforce learning in various ways.

This knowledge of integrated or Inclusive physical education would be able to help in the fitness, health and wellness of all individuals. High quality physical education programmes can be prepared with the help of integrated or Inclusive physical education.

Concept of Inclusion



In the same roof. The principle of inclusive education is, “Access and Quality”.

Need and importance of inclusive education:-

- (i) To provide equal opportunities.
- (ii) To promote uniqueness of each students.
- (iii) To promote better academic achievement
- (iv) To promote awareness and sensitivity.
- (v) To develop social skills.
- (vi) To develop better sense of belongingness.

Implementation of inclusion:-

- (i) To improve school environment
- (ii) To change in admission policy
- (iii) To use of modern technology in school education
- (iv) To appoint the special education teacher.
- (v) To provide basic educational, facilities

4.4 ROLE OF VARIOUS PROFESSIONAL FOR CWSN

(School counsellor, Occupational therapist, Physiotherapist, Speech therapist, Special educator, Physical education teacher)

- 1. School counsellor:-** The school counsellor are the specialists who work with special needs students in elementary school, middle schools, and high schools, to ensure they have the support services they need in order to achieve their highest potential in the area of academics, personal, social growth and career development.
- 2. Occupational therapist:-** An occupational therapist help children with special needs in performing activities related to fine motor skills, like eating, dressing, bathing and grooming etc. He also helps children in participating and interacting with others in play. He help children in adopting to regular school.
- 3. Physiotherapist:-** A physiotherapist is trained to provide assessment and treatment in overcoming movement and physical challenges such as problems of balance, co-ordination, sitting, standing and walking. They look at ways to encouraging child's independence and mobility. A physiotherapist may also assist in making recommendations for specialized equipment. He also promote functional activities and designed specific exercise plan as per the need of children.
- 4. Speech therapist:-** A speech therapist is a trained medical professional who can help children with a number of oral disorders such as trouble swallowing, motor skill, speech issues, cognitive-linguistic conditions and language.
- 5. Special educator:-** A special education teacher is someone who work with children and youths who have severe cognitive, emotional physical disabilities. They also create and apply curriculum and activities to meet the requirement of the students with special needs.
- 6. Physical education teacher:-** The physical education teacher provide such physical activities for the students with special needs which may help in reducing anxiety, stress, tension and depression. The physical education programme plays a very progressive role in improving cognitive functions and academic performance. Social skills and collaborative team work can also be enhanced through the different programmes of physical education. The physical education teacher helps in executing these programmes.

MIND MAPPING

Adaptive physical education:- A diversified programme of developmental activities, games and sports suited to interests, capacities and limitations of students with disabilities.

1. AIM OF ADAPTIVE PHYSICAL EDUCATION

To provide all students with special needs, regardless of their disability, the opportunity to participate in physical education, safely and successfully, in the least restrictive environment.

2. OBJECTIVES OF ADAPTIVE PHYSICAL EDUCATION

1. Provide Physical Education Services
2. Development of Self Esteem
3. Development of Motor Skills
4. Develop Knowledge of Body Mechanics
5. Active Participation in Sports
6. Development of Physical Fitness
7. Development of Socialisation Skills
8. Promotion of Sportsmanship
9. Motivate Students

3. SPECIAL OLYMPIC BHARAT

Special Olympics Bharat is a National Sports Federation for development of Sports: 'for Persons with Intellectual Disabilities.

Aims of Special Olympics Bharat:-

1. Holistic development and training
2. Creating role models for motivation
3. Training teachers
4. Ensuring involvement of community
5. To reflect the Olympic movement values, standards, ceremonies and events.

Oath of Special Olympic Bharat:

“Let me win. But if cannot win, let me be brave in the attempt.”

Mission of Special Olympic Bharat :

1. To provide year-round sports training and athletic competitions
2. Social acceptance of people with intellectual disabilities
3. Encourage athletes to compete in regular sports activities.

4. PARALYMPIC MOVEMENT

Major international multi-sport event, involving athletes with a range of physical disabilities.

The Paralympic Movement : Founded 22 September 1989, Global governing body of the Paralympic Movement.

Paralympic Committee of India

A non-partisan, non-profit organization, dedicated for the development and upliftment of Physically Challenged Sportspersons.

Aims and Objectives of Paralympic Committee :-

1. To develop sport opportunities
2. To develop opportunities at all levels and in all structures.
3. To promote the self-governance of each Paralympic sport federation
4. To ensure the spirit of fair play

5. DEAFLYMPICS

The Deaflympics are an International olympic Committee-sanctioned event at which deaf athletes compete at an elite level.

The motto of deaflympics is **PER LUDOS AEQUALITAS** (Equality through sports)

Aims and Objectives of Deaflympics :-

1. To supervise the organization
2. To develop sport opportunities and competitions
3. To encourage educational, cultural, research and scientific activities
4. To fully enforce a drug-free sport environment
5. To promote sports without discrimination

6. CONCEPT OF INCLUSION ITS NEED AND IMPLEMENTATION

The principle of inclusive education is “Access and Quality”

Inclusive Education (IE) is defined as a process of addressing the diverse needs of all ‘learners by reducing barriers to, and within the learning environment. Inclusive Education (IE) is a new approach towards educating the children with disability and: learning difficulties with that of normal ones within the same roof.

Need and Importance of inclusive Education :-

1. To provide equal opportunities
2. To promote uniqueness of each student
3. To promote better academic achievement
4. To promote awareness and sensitivity
5. To develop social skills

7. ROLE OF VARIOUS PROFESSIONALS FOR CHILDREN WITH SPECIAL NEEDS

1. **Special education counsellor :** They work with special needs students in schools, to ensure they have the support services in academics, personal and. social growth, and career development.
2. **Occupational Therapist :** Trained to provide assessment, treatment and rehabilitation for children and young people who have a physical, coordination: and processing problems.
3. **Physiotherapist :** Trained to provide assessment and treatment in overcoming movement and physical challenges.
4. **Physical Education Teacher :** Provide safe and fun activities for children that promote muscular development and provide cardiovascular exercise.
5. **Speech Therapist :** Trained medical professional who help children with a number of oral disorders.
6. **Special Educator :** Works with children and youths who have severe cognitive, emotional, or physical disabilities.

OBJECTIVE TYPE QUESTIONS (1 MARKS EACH)

Q.1 The head quarter of paralympics is at?

- (a) Paris
- (b) New York
- (c) Germany
- (d) Denmark

Ans. (c) Germany

Q.2 Deaflympics started in which year?

- (a) 1924
- (b) 1960
- (c) 1947
- (d) 2001

Ans. (a) 1924

Q.3 Cochlear implant is not allowed in which sports?

- (a) Special Olympics
- (b) Deaflympics
- (c) Asian games
- (d) Olympic games

Ans. (b) Deaflympics

Q.4 Speech therapist helps a child of CWSN in which activity?

- (a) Grooming
- (b) Communication
- (c) Enhancing mobility
- (d) Playing

Ans. (b) Communication

**Q.5 "Let me win. But if I cannot win, let me be brave in the attempt".
In which game this oath is taken?**

- (a) Special olympic Bharat
- (b) Paralympic
- (c) Deaflympic
- (d) Asian games

Ans. (a) Special olympic Bharat

Q.6 'Spirit in motion' is the motto of games?

- (a) Paralympics
- (b) Special olympic Bharat
- (c) Commonwealth games
- (d) Deaflympics

Ans. (a) Paralympics

Q.7 What is the motto of deaflympic?

- (a) Spirit in motion
- (b) Per ludos aequalitas
- (c) Cetius, altius fortius
- (d) Let me win brane in my attempt

Ans. (b) Per ludos aequalitas

Q.8 Inclusion is needed to

- (a) social development of CWSN
- (b) to incerease motion skills
- (c) to improve academic performance
- (d) All of these.

Ans. (d) All of these.

Q.9 Name the teacher who is specially trained to work with CWSN....

- (a) Physical education teacher
- (b) Physiotherapist
- (c) Principal
- (d) Special educator

Ans. (d) Special educator

Q.10 Whistles or guns are not used in these games

- (a) Common Heath
- (b) Deaflympic
- (c) Paralympios
- (d) Spcecal Olymic

Ans. (b) Deaflympic

Q.11 What is the term used for children with special need?

- (a) Viklang
- (b) Divyang
- (c) Differently abled
- (d) All of the above

Ans. (b) Divyang

Q.12 How much is the interval between two subsequent Para-lympic games?

- (a) 2 years
- (b) 3 years
- (c) 4 years
- (d) 1 year

Ans. (c) 4 years

Q.13 Given below are two statements labelled Assertion (A) and Reason (R) :-

- (A) : Inclusive Education (IE) is a new approach towards educating the children with special need and learning difficulties with that of normal ones with in the same roof.
- (R) : In effective inclusive programmes, teachers adapt activities to include all students, even though their individual goals may be different.

In the above context two statements, which one of the following is correct?

- (a) Both (A) & (R) are true and (R) is the correct explanation of (A).
(b) Both (A) & (R) are true, but (R) is not the correct explanation of (A).
(c) (A) is true, but (R) is false.
(d) (A) is false, but (R) is false.

Ans. (a)

QUESTION FOR 3 MARKS (60 WORDS)

Q.1 Write a short note on the origin of Para Olympic Games?

Ans. In the second world war majority of people suffered . They lost their will power and kept remembering the horrors of wars all the time. In 1960 Rome Olympic, Sir Ludwig Collected 400 disabled Athletes and organized games and it was named Para- Olympics. Shooting was the first game to be introduced in Para Olympic games, the international Para Olympic committee is responsible for organizing summer and winter Olympic game. The head quarter IPC is situated in Bonn (Germany). The symbol of Para Olympic Games is three colours red, Blue and green flag and the motto of Para Olympic is 'Spirit in Motion' 2014 winter para Olympic games was successfully hosted by Russia.

Q.2 Describe the principles of integrated and comprehensive physical education.

Ans. (i) It should be based on the inter related sub-topics of physical education.
(ii) It should cater to the requirements of different people.

- (iii) It should be capable of facing the challenges of the present and the future.
- (iv) It should be capable of providing comprehensive and deep knowledge about physical education.
- (v) It should motivate an individual to engage in a lifelong healthy and active lifestyle.
- (vi) It should be able to develop social and emotional skill among people

Q.3 Write a note on special Olympic Bharat?

Ans. This organization was established in 2001, its aims is to increase the participation of differently abled person's in games and sports. Its another objectives was to develop leadership quality and healthy. This organization organizes sports competition at state level. It also serve talented players and train them for international games. After 2002, about 23,750 participants have participated in national games. Between 1987 and 2013, a total of 671 Indian athletes participated in Olympic. They won 246 Gold medals, 265 Silver medals, 27 bronze medals and they raised the glory of the country in the world.

Today around 1 million athletes are the members of this organization and 84905 coaches train these athletes. This organization does the all round development of the players through games and sports.

Q.4 Enlist the different objectives of adaptive physical education?

Ans. The following are the objectives of adaptive physical education:

- (i) To provide the physical education services.
- (ii) To develop self esteem.
- (iii) To develop motor skill.
- (iv) To develop the knowledge of body mechanics.
- (v) To increase active participation in sports.
- (vi) To develop physical fitness.
- (vii) To develop socialization skill.

QUESTION FOR 5 MARK (150 WORDS)

Q.1 Which principles are required to be followed to make the adapted physical education effective? Explain.

Ans. 1. Medical Examination : It is very important for the success of programme related to adapted physical education. Otherwise it will be difficult to find out what kind of disability, the student is suffering from.

There fore it is imperative to conduct medical examination of the students.

2. Programmes according to the interest of the students: programmes should be made keeping in mind the interest, capacity and previous experience of the students. The teachers should also have deep knowledge about it, then only they can make any successful programme.

3. Equipment should be appropriate : Students should be provided with equipments asper disability concerned for example, students suffering from visual impairment should be given a ball with bell so that they may catch the ball as it rolls because of the sound. Thus such students can make out the direction and distance of the ball.

4. Proper Environment: The play area also should be limited because of the limited speed capacity of the children for example, speech impaired children be given rest in between the games. The play area should be limited to top smaller area.

5. Modification of rules: Rules and regulation of the game and sports should be modified depending on the specific needs of students. In order to learn new skill they may be given extra time, extra effort, extra rest and 2 marks in place of 1 mark.

Thus, they might be given the opportunity for all round development.

Q.2 Explain the concept of Inclusion.

Ans. A defining characteristic of an excellent physical education program is that it includes students with a diverse range of abilities, needs, interests and

learning styles in meaningful learning experiences. The term "Inclusive Physical Education" reflects a program where respect and acceptance of all students, specifically students with disabilities, is an essential component of the classroom environment and teaching strategies.

Inclusion is about creating a classroom in which every student is welcomed, valued, respected and enabled to reach his/her full potential. In a successful Inclusive Physical Education program, all students are fully engaged in instructional activities, sharing equally and learning together. Although the activities may be modified or adapted, students with disabilities learn the same concepts, skills and content as all other students in the class. The result is educational equity and access for all students!

Inclusive Physical Education requires educators to believe in the concept that success for each student can be different. The educator must be willing to modify and adapt lessons and activities to ensure that every student learns and achieves success at his own pace and according to his own abilities. Educators see the abilities of all students as contributing to the whole class. Effective teaching for students with disabilities is basically the same as effective teaching for all students.

Q.3 What is the role of school counsellor in special education?

- Ans.**
1. The role of a school counsellor is to help all students, including those with special needs, to achieve their full potential. Introducing an appropriate individualised education programme (IEP) at early age can make all the difference, not only in these children's academic learning but in their emotional health and social adjustment and ultimately in their ability to become productive, contributing member of society.
 2. Counselling sessions with special education students.
 3. Encouraging family involvement in IEP.
 4. Consulting with and working with other school staff to better understand the child's special needs.
 5. Collaborating with other school and community professionals like, teachers, school, psychologist, physical therapist and occupational therapist etc.

6. Identifying other students who should be assessed to determine the eligibility for special education.



Q.4 What is the need of inclusion in physical education?

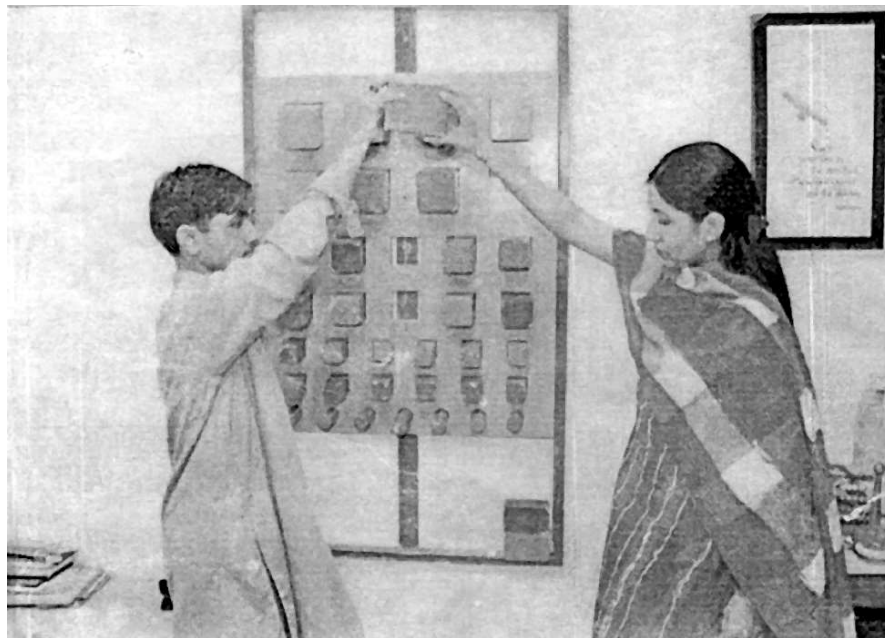
Ans. Inclusion is needed for following reasons—

1. Inclusion in physical education increases social skills of students with disabilities.
2. Inclusion is needed to increase motor skills of students with disabilities.
3. A disabled student gets equal chance to participate in age appropriate activities so, it increases the confidence level.
4. Typical students get a chance to increase friendships with disabled children.
5. Inclusive education provides an opportunity to typical students to go beyond tolerance to acceptance and advocacy.
6. Inclusive education enables a student to increase their knowledge and acceptance based on the “contact theory”. Through frequency, meaningful and pleasant interactions, changes in attitude can occur.

Q.5 What is the role of occupational therapist for special need children?

Ans. Self care – An occupational therapist will help a child perform and be independent in self care skills like eating, dressing, toileting, bathing and grooming.

- **Play** – An occupational therapist helps children participate and interact with others in play. They may suggest modifications in the position, mobility aids or modified toys to help a child to play.
- **School** – Occupational therapists help children participate and adapt to regular school. They may suggest aids for writing and other classroom activities to help them participate equally with other children. Children with special needs may also require special furniture to help them sit and write better.
- **Environmental modifications:** Occupational therapists can suggest modifications in the house, school or playground that will help the child participate more easily. Helping the child become independent early in life, will encourage them to live independently as an adult.
- **Fine motor skills and Hand writing** occupational therapists also play a role in helping a child improve their fine motor skills handwriting. They will be able to identify the specific deficits in the child and suggest activities that will help improve these skills.
- **Splinting** – Occupational & therapists can also make simple splints to help the child perform activities in a better way.



Q.6 What is the contribution fo special education teacher in developing education plans for special need children?

- Ans.**
1. Assess student's skills to determine their needs and to develop teaching plans.
 2. Adapt lessons to meet the needs of students.
 3. Develop Individualised education programs (IEPs) for students.
 4. Plan, organise, and assign activities that are specific to each student's ability.
 5. Implement IEPs, assess students.
 6. Update IEPs throughout the school year to reflect student's progress and goals.



Q.7 What is the role of a Physical Education teacher for children with special needs.

- Ans.** — The rights of persons with disabilities Act 2016, that gives pupil a right to inclusiver activity. So physical education teachers are expected to take action within the individual school context and modify and adopt existing practices in order to facilitate full entitlement to the access of physical activity for pupils with special need.
- The PETs organise ball games for disabled children to improve overall strength and agility hand eye co-ordination and gross motor skills. Students have shown that throwing, catching, rolling and passing the ball improves the dsiabled child's muscle response.

- Scientific research has demonstrated that physical education can enhance academic performance and cognitive function. So parents with the help of teachers should always encourage the child with special need to participate in activities.

Q.8 What is the role of speech language pathologist for special need children?

Ans. Speech therapist/pathologist works with children with a varieties of delay and disorder such as autism. Down syndrome, hearing impairment, motor speech disorders, and other developmental delays.

They help child with :

1. **Articulation skills :** speech intelyty articulation is the physical ability to move the tongue, lips, jaw and palate (known as the articulators) to produce individual speech sounds which we phonemes.
 2. **Expressive Language Skills:** While speech involves the physical motor disability to talk, language is a symbolic system used to convey a message. Proper use of these is developed by speech therapist.
 3. **Receptive Language/Listening Skills:** Receptive language, refers to child's ability to listen and understand language. Therapist can help teach the child new vocabulary and how to use that knowledge to follow direction, answer question and participate in single conversations with others.
- Physical education teacher need to determine the abilities of students with speical needs so that to design special sports activities according to their need.
4. **Speech Fluency/Stuttering:** Sluttering is a communication disorder that affects speech fluency. Therapist can teach the child startegies on how to control behaviour like tension in the neck, showdess, face, jaw, chest, eye blink, etc. and thus increasing lies speech fluency and intelligibility.
 5. **Voice and Resonance:** Voice disorders refer to disorders that effect the vocal folds that allow us to have a voice. These can include vocal cord paralysis, nodales or polypes on vocal folds. Therapists can work with children to decrease these behaviours (vocal classess) and repair the strain/damage of the folds.

Q.9 What is the role of physiotherapist for the children of special needs (CWSN)?

Ans. Physiotherapist – Physiotherapist are trained to evaluate and improve the function of the body, with particular attention to physical mobility, balance, posture, fatigue and pain.

The physical therapy programme involves educating the child about the physical problems caused by their disability, designing and individualised wise programme to address the problems, and enhancing mobility and energy conservation through the use of a variety of mobility aids and adaptive equipments.

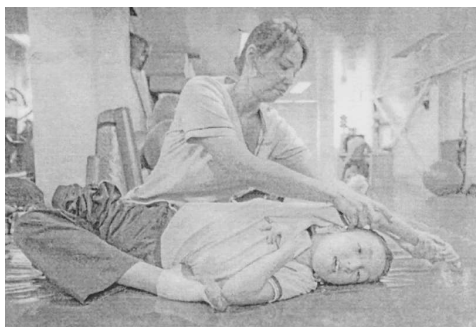
Physiotherapy can be used to help children who have a neurological condition that affects the nervous system, such as multiple sclerosis, stroke and cerebral palsy.

Physiotherapy can be used to treat injuries that affect the bone, joints and muscles such as sports injuries and arthritis.

Paediatric treatment – Physiotherapy can be used to treat children affected by ‘Muscular Dystrophy’. These and other conditions may require the child to have help to improve balance, strength and co-ordination.

Techniques of Physiotherapy :-

1. Massage and manipulation
2. Exercise and movement
3. Electrotherapy
4. Hydrotherapy



“Yoga is physical, mental and spiritual practice which originated in india”. International yoga day celebrated Annually on 21st June Worldwide.”

Unit - 5

Yoga

- ✍ 5.1 Meaning and Importance of yoga.
- ✍ 5.2 Elements of Yoga
- ✍ 5.3 Introduction- Asanas, Pranayama, Meditation and yogic keriyas
- ✍ 5.4 Yoga for concentration and related Asanas –
(Sukhasana, Tadasana, Padmasana, Shashank asana, Naukasana, Vrikshasana(Tree pose), Garudasana (Eagle pose)
- ✍ 5.5 Relaxation Techniques for improving concentration - Yog Nidra

YOGA

Meaning and Importance of Yoga

5.1 Meaning

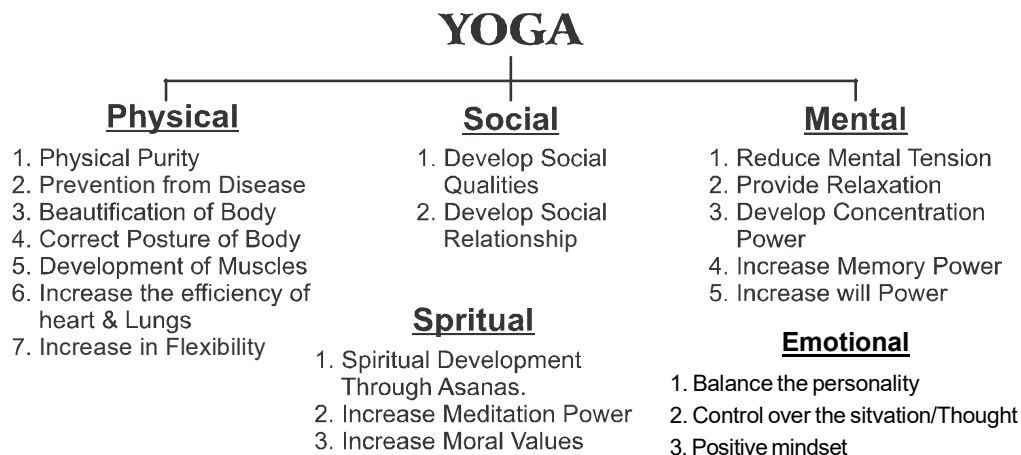
The term yoga is derived from a Sanskrit word 'Yuj' which means join or union. In fact joining the individual self with the divine or universal spirit is called yoga. It is a science of development of man's Consciousness.

Maharishi Patanjali - "Checking the impulses of mind is yoga".

Maharishi Ved Vyas - "Yoga is attaining the pose".

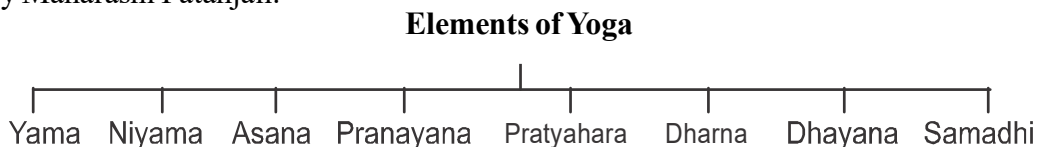
In Bhagwat Gita, Lord Krishna says, "Skill in action or efficiency alone is yoga."

Importance of Yoga :



5.2 Elements of Yoga

The main aim of yoga is to control over the mind. This is Possible only follow to eight fold Paths or eight steps also know as "Ashtang Yoga". This system was Developed by Maharashi Patanjali.



1. **Yama (Social Discipline)** Comprising Ahinsha, Satya, Asteya, Brahmacharya and Aparigarha.

2. **Niyama (Personal Discipline)** Comprising Saucha, Santosha, Tapa, Swadhyaya and Ishwara Pranidhana.
3. **Asanas:** Body Postures
4. **Pranayama :** Breathing exercise
5. **Pratyahara :** Control of sense
6. **Dharna :** Concentration
7. **Dhyana :** Devotion, Meditation
8. **Samadhi :** Union with the Divine.

5.3 Introduction to Asanas, Pranayam, Meditation & Yogic Kriyas

Asana: According to Patanjali Means "Sthiram Sukham Asanam" *i.e.* that possible which is comfortable and steady."

Pranayama: The word Pranayama is comprised of two words "Prana Plus Ayama" Prana means life force and Ayama means control. In this way pranayama means "The control or regulation of Prana"

Importance of Asanas and pravayama

Improve Concentration Power	Correct Body Posture	Rehabilitation of Injuries
Increase Flexibility	Improve Breathing System	Improve Heart & digestive System function
Improve Overall Health	Reduce Fatigue	Active All Body Systems

Types of Asana :-

Meditative : Padmasana, Vajrasana

Relaxative : Shashankasana, Makrasana

Cultural : Halasana, Shirsana

Types of pranayam : Bhastrika, Bhramari, Shitkari, Ujjayi, Anulom-vilom pranayam

- **Meditation:** Also called Dhyana. According to Patanjali the concentration of chitt and vritti without any divergence is called Dhyana.

Yogic Kriyas (Help in cleaning the body)

Neti :- Keep nasal passages clean

Kapalbhati :- Kapal means forehead, bhati means shine

Trataka :- Train the eyes and mind

Vasti :- Clean large intestine

Dhauti :- Used for cleansing the internal parts eg. Digestive

Nauli :- Shaking the belly, ease the process of digestion

5.4 Yoga for Concentration and related Asanas

(Sukhasana, Tadasana, Padmasana, Shashankasana, Vrikshasana, Garudasana and Naukasana)

SUKHASANA



Sukhasana is also known (Tolor's seat and easy sitting pose)

Techniques

1. Sit on the mat with legs stretched out in front.
2. Bend the right leg at the knee and place the foot under the left thigh. Use the hands to do this.
3. Now bend the left leg and place the left foot under the right leg.
4. Keep the body balanced and easily erect.
5. Extend the arms so that the wrists rest on the knees, palms turned upward.
6. The tips of the thumbs should touch the tips of the index fingers, with other fingers tying straight-out.

Precautions

1. Do not practice it on an uneven place.
2. Do the asana on a mat.
3. It should be done slowly and smoothly.
4. Do not force the knees down.
5. Keep the spine, neck, and head in a balanced, erect condition.

Effects/Advantages

1. This is for meditation.
2. This helps in concentration.
3. This induces mental and physical stability through calming the nervous system.
4. This asana is useful for the cure of stiffness in the joints of the limbs.
5. This helps the mind to be firm, attentive and alert.

TADASANA (Palm Tree Posture)

Tada means palm tree or mountain. This asana teaches one to attain stability and firmness and forms the base for all the standing asana.

Technique

1. Stand with feet 2 inches apart.
2. Interlock the fingers, and turn the wrist outwards. Now inhale, raise the arms up and bring them in line with the shoulders.
3. Raise the heels off the floor and balance on the toes. Stay in this position for 10-15 seconds.
4. Exhale, bring the heels down.
5. Release the interlock of the fingers and bring the arms down parallel to the trunk, and come back to standing posture.

**Benefits**

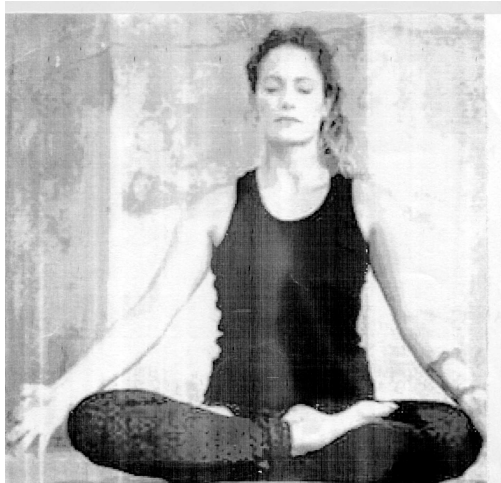
1. This asana brings stability in the body, helps to clear up congestion of the spinal nerves, corrects faulty posture.
2. Helps to increase height up to a certain age.

A ward of caution

1. Avoid lifting the toes in case of acute cardiac problems varicose veins and vertigo.

PADMASANA (Means Lotus)**Techniques**

1. Sit on the ground with legs straight.
2. Bend the right leg at the knee, hold the right foot with the hands and place it at the root of the left thigh so that the right heel is near the navel.
3. Then bend the left leg, and hold the left foot with the hands, place it over the right thigh at the root and the heel near the navel. The soles of the feet should be turned up.
4. The left hand rests on the left knee and right hand on the right knee.
5. The tips of the thumbs of both the hands touch the tips of the index fingers.
6. Keep the head and the spinal column erect. One can close or open the eyes.

**Precaution**

1. Do not practise after being out in the hot sun for several hours.
2. Do not practise on the uneven place. No undue strain should be felt.
3. Faulty practise causes discomfort and uneasiness. It is better to get the guidance from yoga experts.
4. It should be done slowly and smoothly.

Effects/Advantages

1. Padmasana is one of the most relaxing poses.
2. The crossed legs and the erect back keeps the mind attentive and alert.
3. It is good for curing stiffness in the knees and ankles.
4. It stimulates the digestive process and endocrine gland.

SASANKASANA (The Hare Pose)**Technique**

1. Sit in Vajrasana.
2. Spread both the knees wide apart, keep the big toes touching.
3. Keep the palms between the knees.
4. Exhale and slowly stretch them full length.
5. Bend forward and place the chin on the ground.
6. Keep the arms parallel.
7. Look in front and maintain the posture.
8. Inhale and come up.
9. Exhale and come back to Vajrasan.

Benefits

1. It helps to reduce stress, anger etc.
2. It tones up reproductive organs, relieves constipation, improves digestion and relieves back pain.

A word of caution

1. Please avoid this posture in case of acute backache.
2. Patients with osteoarthritis of the knees should exercise with caution or avoid vajrasana.

NAUKASANA

Naukasana comes from the two sankrit words 'nauka' which means 'boat' and 'asana' meaning 'posture' or 'Seal'. It is a posture in which our body takes the shape of a boat.

Steps

1. Lie down on your back (supine position) on a yoga mat. Arms by the side of your body.
2. Breathe normally. While exhaling, simultaneously raise the lower extremities (the legs) and the body up from the mat.
3. At the same time, extend the arms upward & stretch them to touch the toes.
4. The body weight to be rested on the buttocks and maintain the balance.
5. Try to lift the body to an open 'V' position.

Benefits

1. This asana strengthens the abdominal muscles.
2. It improves core stability and strength.
3. It improves the stability and strength of the back muscles.
4. It improves the strength of the arms, shoulders and the thigh muscles.
5. It helps in reducing fat around the abdominal area.
6. It enhances circulation of blood in the body.
7. It also improves confidence and willpower.

Contraindications

People having any problem of the spine should avoid this asana.

VRIKSHASANA (The Tree Posture)

Vrksa means tree. The final position of this asana resembles the shape of a tree, hence the name.

Technique

1. Stand with feet 2 inches apart.
2. Focus on a point in front.
3. Exhale, bend the right leg and place the foot on the inside of the left thigh. The heel should be touching the perineum.



4. Inhale and extend the arms up and join the palms.
5. Stay in the position for 10 to 30 seconds and breathe normally.
6. Exhale and bring the arms and right foot down.
7. Relax and repeat the asana by bending the left leg.

Benefits

1. Improves neuro-muscular coordination, balance, endurance and alertness.
2. It tones up the leg muscles and rejuvenates the ligaments also.

A word of caution

1. Please avoid this practice in case of arthritis, vertigo and obesity.

GARUDASANA

Steps

1. Stand straight and extend your body upward.
2. Raise your right leg slightly up by flexing the knee.
3. Wrap the left leg with the right, flexing both from the knees. Curl the right toe around the back of the left calf muscle.
4. Focus on a point in front and get the balance.
5. Cross the right hand around the left, keeping the left hand down.
6. Flex both the arms from the elbow and try to join the palm.
7. Keep the palms at the centre of the face and maintain for 3-5 seconds in the beginning.
8. Repeat the same movement while balancing on the right leg.



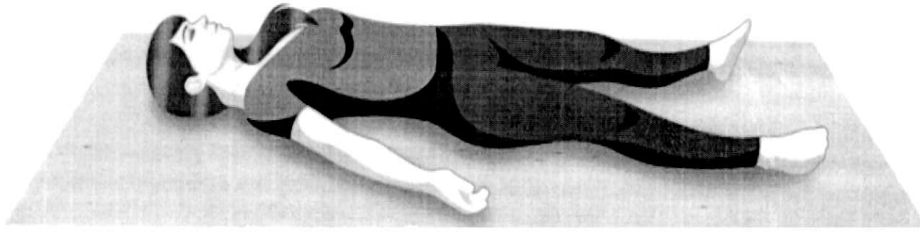
Benefits

1. This asana stretches the shoulder, hip and the thigh muscles.
2. It strengthens the shoulder, hip and the thigh muscles.
3. It improves the body posture.
4. It improves the balance and stability of the body.
5. It improves concentration and mental strength.

Contraindications

People having ankle, knee and shoulder problems should avoid this asana.

5.5 Relaxation Technique for Improving Concentration (Yog-Nidra)



A yoga routine provides deep restoration to your body and the mind. And to make your practice more effective, it's ideal to end your yoga sequence with yoga nidra (yogic sleep). In yoga nidra, we consciously take our attention to different parts of the body and relax them.

Simply described as effortless relaxation, yoga nidra is an essential end to any yoga pose sequence. Yoga postures 'warm up' the body; yoga nidra 'cools it down'.

Yoga practices increase the energy levels in the body.

Yoga Nidra helps conserve and consolidate this energy and relax the entire system, preparing it for pranayama and meditation. It is, therefore, important to keep aside sufficient time for yoga nidra after yoga postures.

OBJECTIVE TYPE QUESTIONS (1 MARKS EACH)

Q.1. Who is the writer of 'Yog-sutra'?

- (a) Vedyas
- (b) Baba Ramdev
- (c) Swami vivekanand
- (d) Maharshi patanjali

Ans. (d) Maharshi patanjali

Q.2. The number of components in yoga are –

- (a) Four
- (b) Six
- (c) Eight
- (d) Two

Ans. (c) Eight

Q.3. Which of the following is not a part of yama?

- (a) Satya
- (b) Apathya
- (c) Asteya
- (d) Santosh

Ans. (d) Santosh

Q.4. The number of components in pranayama are –

- (a) Three
- (b) Two
- (c) Five
- (d) Seven

Ans. (a) Three

Q.5. Which is the eighth limb of Ashtanga Yoga?

- (a) Dhyana (b) Dharana
- (c) Samadhi (d) Pratayahara

Ans. (c) Samadhi

Q.6. Which of the following is not a body building Asanas?

- (a) Dhanurasana (b) Bhakrasana
- (c) Mayurasana (d) Savasana

Ans. (d) Savasana

Q.7. The number of yogic kriyas are

- (a) Four (b) Five (c) Six (d) Three

Ans. (c) Six

Q.8. Which of the following asana is also called 'hare pose'?

- (a) Padmasana (b) Tadasana
- (c) Shashankasana (d) Halasana

Ans. (c) Shashankasana.

Q.9. Complete stability of mind is known as

- (a) Samadhi (b) Pratayahara
- (c) Dharana (d) Dhyana

Ans. (d) Dhyana

Q.10. Which of the following is helpful in increasing height?

- (a) Padmasana (b) Tadasana
- (c) Halasana (d) Sukhasana

Ans. Tadasana

SHORT TYPE QUESTION (2 MARKS EACH)

Q.1. What is the pre-requisites for Asanas, Pranayam, Dhyana and Samadhi?

Ans. 1. Yama and Niyama considered to be pre-requisites for further yogic practices. **Yama (Social Discipline)** comprising Ahimsa, Satya, Asteya, Brahmacharya and Aparigraha.

2. **Niyama (Personal Discipline)** comprising Saucha, Santosha, Tapa, Swadhyaya and Ishwara Pranidhana.

Q.2. "Some people believe, yoga is very simple to learn in a glance" does proper guidance needful or not?

Ans. Yoga is very popular and general word around us, but it needs proper guidance, technique and instructions, So, must be perform according to qualified teacher or Yog Guru teachings.

SHORT TYPE QUESTION (3 MARKS EACH)

Q.1 What is the role of yoga in sports?

Or

Importance of yoga? Describe it?

Ans. Yoga consists of both mental as well as physical exercise.

1. It help to keep the body fit.
2. Relief from any kind of tension
3. Improves the heart and lung-functioning capacity.
4. It helps in curing and prevention from disease.
5. Improves, agility, flexibility, co-ordination, strength etc.
6. Improves the co-ordination of body system.
7. Improves correct body posture.

Q.2 What is the role of meditation in sports?

Or

Importance of meditation? Describe it?

- Ans.**
1. Meditation helps to increase concentration.
 2. It gives relaxation to the body and mind.
 3. It cures stress and Anxiety.
 4. It improves the function of nervous system.
 5. It control anger
 6. Develop mind properly.

CASE STUDY QUESTION

A student in XI class, ask the Physical Education Teacher about Asana for height increase. The student's also regular to play ground for activities.

Q.1 Which Asana is directly and most helpful in height increase

- | | |
|---------------|---------------|
| (a) Sukhasana | (b) Padmasana |
| (c) Tadasana | (d) Vajrasana |

Ans. (c) Tadasana

Q.2 Does yog Nindra twice a week help him to refresh better.

- (a) True under guidance (b) False
(c) No Effect (d) True but no guidance need

Ans. (a) True under guidance

Q.3 Does we can perform sasankasana in Acute back pain?

- (a) Yes (b) No
(c) Yes, with warming up (d) Not in the morning

Ans. (b) No

LONG ANSWER TYPE QUESTIONS (5 MARK EACH)

Q.1 Explain the benefits of Yog Nidra in detail.

Ans. Yog Nidra benefites are :-

1. It helps in relieving muscular, emotional, and mental tension.
2. Yog Nidra relaxes the mind by relieving stress and anxiety.
3. It treats insomnia, psychological disorders, and psychosomatic diseases.
4. It trains the mind and helps in enhancing memory and increasing learning capacity.
5. Yogic sleep also results in increased energy levels.
6. It heals endocrinal imbalances.
7. Yog Nidra not only detoxidifies the body, but also clears up the subconscious.
8. It improves creativity.
9. It also leads to improved senses and more cultivated body awareness.
10. Yoga nidra restores the mind and body.

MIND MAPPING

Yoga: According to Maharishi Patanjali, Checking the impulses of mind is yoga.

1. IMPORTANCE OF YOGA

- (i) Reduces tension
- (ii) Improves concentration
- (iii) Cleans respiratory organs
- (iv) Controls sense organs
- (v) Relaxes the body
- (vi) Shapens the body
- (vii) Cures various diseases
- (viii) Reduces obesity
- (ix) Improves health
- (x) Maintain correct posture
- (xi) Increases flexibility

2. ELEMENTS OF YGGP

Ashtanga Yoga – ‘Ashta’ means eight and ‘Anga’ means limbs. It means eight-limbs yoga.

- (i) **Yama (Restraints) :** Yama is also sometimes called "the five restraints" because it describes what one should avoid to advance on the spiritual path,
 - (a) Ahimsa (Non-Violence)
 - (b) Satya (Truthfulness)
 - (c) Asteya (Non-Stealing)
 - (d) Bran macharya (Celibacy)
 - (e) Aparigraha (Non-Coveting)
- (ii) **Niyama (Observances):** Inward practices to improve the self.
 - (a) Saucha (Purification)
 - (b) Santosh (Contentment)
 - (c) Tapas (Asceticism)

- (d) Swadhyaya (Study)
- (e) Ishwara Pranidhana (Dedication To God)
- (iii) Asana:** Various postures of yoga.
- (iv) Pranayama:** Pranayama is the practice of various breathing techniques.
 - (a) **Puraka:** To inhale breath
 - (b) **Kumbhaka:** To retain breath.
 - (c) **Rechaka:** To exhale breath
- (v) Pratyahara :** Detaching the mind and sense organs from the related activity; and attaching to God.
- (vi) Dharana:** Concentration of mind.
- (vii) Dhayana :** Process of complete concentration of mind and one can concentrate long and do meditation,
- (viii) Samadhi:** Stage in which one loses personal identity. Union of individual's soul with the supreme soul.

3. ASANAS

Various postures for improving the body's flexibility and vitality, with the goal of cultivating the ability to remain in seated meditation for extended periods. Classification:

1. Dhyanatmak Asanas (Meditative Asanas)
2. Relaxative Asanas
3. Cultural or Corrective Asanas

4. PRANAYAMA

Breathing exercises that are used for relaxation, concentration and meditation.

Types of Pranayama:

- (i) Anulom-Vilom
- (ii) Kapalabhati
- (iii) Bhramari Pranayama
- (iv) Sheetal Pranayama
- (v) Sheetkari Pranayama

- (vi) Ujjayi Pranayama
- (vii) Bhastrika Pranayama

5. MEDITATION

According to Patanjali, Meditation is the concentration of mind (Chitta) on an impulse (Vritti) without any divergence.

6. YOGIC KRIYAS

Yogic Kriyas help the individual to clean the internal as well as the external organs of the body with the help of various yogic Kriyas.

- Types:** (i) Neti Kriya (ii) Dhauti Kriya (iii) Nauli Kriya
(iv) Basti Kriya (v) Kapalabhati Kriya (vi) Trataka Kriya

7. BENEFITS OF YOGA FOR CONCENTRATION

1. Benefits Within the Body
3. Yoga Techniques Help in Concentration
2. Benefits Outside the Body

8. YOGAASANAS

1. **SUKHASANA :** In Sanskrit the word "Sukham" means "delight" or "bliss" and "asana" means 'posture'. This asana is basically a relaxing pose.
2. **TADASANA :** The word Tada in Sanskrit means 'palm tree'. This asana is called Tadasana because in this asana the person stands straight like a palm tree stretching his whole body upwards.
3. **PADMASANA :** Padmasana is made of two words: padma and asana. Padma means 'lotus'. The legs in the sitting position of this asana gives the appearance of a lotus. This is a meditative asana.
4. **SHASHANKASANA (HARE POSTURE) :** In the final position of this asana, the body resembles the shape of a hare, hence, it is called Shashankasana. This asana helps to regulate the functioning of the organs of the endocrine system especially the adrenal glands and the pancreas located in the abdominal and pelvic regions of the body.

5. **NAUKASANA (BOAT POSTURE) :** Nauka in Sanskrit means 'boat'. The final position of this asana resembles a boat. This asana can be performed both in supine and prone position.
6. **VRIKSHASANA (TREE POSTURE) :** This is a balancing asana. The Sanskrit word vriksha means 'tree'. In the imagination of the tree, foot seems as a roots, leg is the trunk, arms as the branches and leaves, head as top of the tree, all make the posture in the shape of a tree.
7. **GARUDASANA (EAGLE POSTURE) :** This asana is named after the well-known bird Garuda (eagle). In this asana, the hands with arms placed in front look like the beak of an eagle.

9. YOG NIDRA

Yoganidra means 'sleep' with awareness. Yoganidra is practised in Shavasana.

PHASE 1: BODY AWARENESS

PHASE 2: BREATH AWARENESS

PHASE 3: COMING BACK

BENEFITS OF YOG NIDRA

- (i) Minimizes tension
- (ii) Trains the mind
- (iii) Relaxes the mind
- (iv) Clears up the unconscious
- (v) Awakens creativity
- (vi) Enhances memory and learning
- (vii) Counteracts stress capacity
- (viii) Manages psychological disorders
- (ix) Manages psychosomatic diseases

Unit - 6

Physical Activity and Leadership Training

Main Point :-

- ✍ 6.1 Leadership Qualities and Role of a Leader
- ✍ 6.2 Creating Leaders through Physical Education
- ✍ 6.3 Meaning, Objectives and Types of Adventure Sports
(Rock climbing, Tracking, River Rafting, Mountaineering, Surfing,
and Paragliding)
- ✍ 6.4 Safety measures to Prevent Sports Injuries.

6.1 (a) Physical Activity

Physical activity is defined as any bodily movement produced by skeletal muscles that requires energy expenditure.

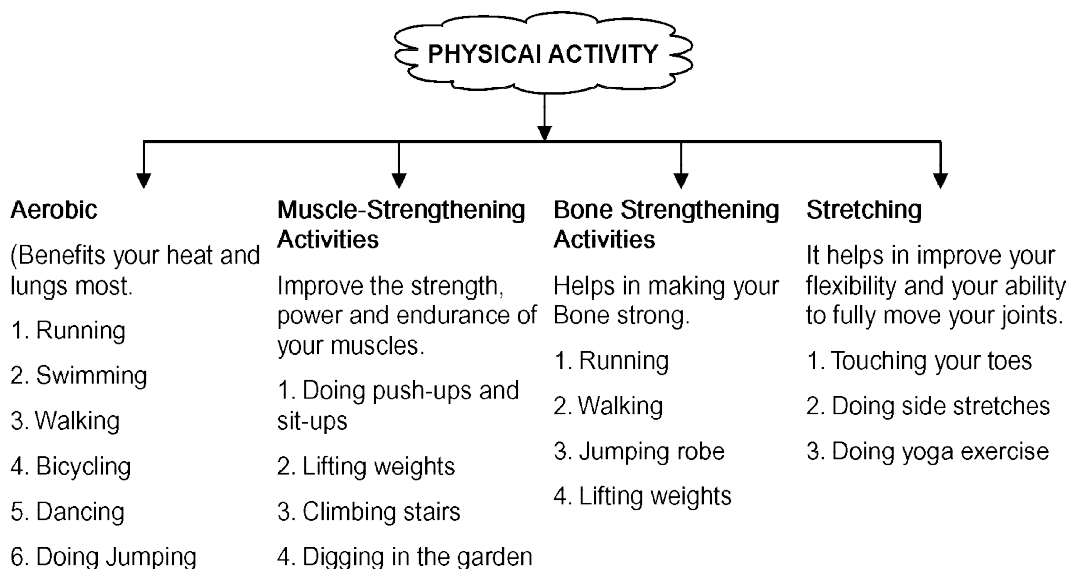
Physical Activity includes exercise as well as other activities which involve bodily movements and are done as part of playing, working active transportation, house chores and recreational activities.

Physical Activity or exercise can improve your health and reduce the risk of developing several diseases like cancer, diabetes and cardo-vascular disease. It can have immidiate and long term health benijits. Most importantly, regular can improve your quality of life.

The four main types of physical activities are—

1. Aerobic
2. Muscle – strengthening
3. Bone – strengthening
4. Stretching

Importance of Physical Activities



6.1 (b) Leadership

Leadership can be described as the ability of an individual to influence, motivate, and enable others to contribute toward the effectiveness and success of an organization or a group of which they are members.

Leader – A person who can bring about change, therefore, is one who has the ability to be a leader.

Or

A person or thing that holds a dominant or superior position within its field, and is able to exercise a high degree of control or influence over others.

A leader is one, who knows the way, Goes the way and shows the way.

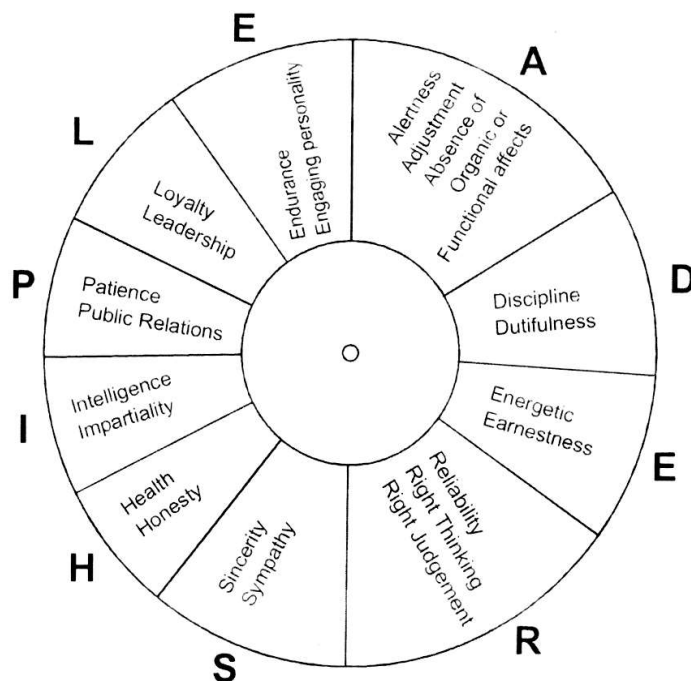
6.1 (c) Qualities of a Leader

1. Awareness — As the leader of a team awareness is a key. A leader should be aware of different scenarios.
2. Passionate – The leader should be passionless enough to motivate other players.
3. Energetic
4. Friendliness and affection
5. Decisiveness
6. Technically skilled
7. Intelligent
8. Teaching skill
9. Creative
10. Interest in Research

LEADERSHIP TRAITS

L — Loyalty
E — Empathy
A — Accountability
D — Duty & Determination
E — Energy & Encouragement
R — Respect
S — Selflessness
H — Honorable and humble
I — Integrity & Innovation
P — Passion for and pride in work

Be a Leader!



Leadership: Leadership is the quality of a person to lead others in a family, society, tribe, group, or country.

6.1 (d) Role of a leader in Sports

1. **Organiser**—A good leader in sports is a good organiser in organizing different sports events.
2. **Motivator**—A leader in sports understands his students and their mental needs. So, he plays the role of a good motivator.
3. **Guardian**—A good leader plays the role of guardian. A good leader understands the personal problem of an athlete and provides solution for the problems.
4. **Teacher**—A good leader in sports performs the role of a teacher by helping participants in developing teaching techniques, educate them and improve their range of styles.
5. **Psychologist**—A good leader plays the role of a psychologist. He knows the mental skills and toughness of their players.
6. **Role model**—As leader, you should be able to set a role model.

6.2 Creating leaders through Physical Education

Creating leaders through physical education we can make leaders through physical education by adopting the following approach—

1. Give various responsibilities of an event
2. Provide leadership training
3. Provide regular opportunity to improve
4. Recognize their achievement by facilitating them at different forms.
5. Have faith and confidence in your students if they they are defaulter.
6. Assigning Responsibilities by making captains or Representatives.
7. By giving duties like preparing training programme for any one day.
8. Giving opportunities to organise class level events like sports Quiz or poster making competitions.
9. Giving opportunities to Judge the competition and present their views/ observations.

6.3 (a) Adventure Sports

Adventure sports are the activities perceived as high level of inherent danger or those activities which often involve speed, height, high level of physical exertion and highly specialised gear. Adventure sports, not only give enjoyment but also it helps in all round development of an individual. As compared to other sports, these adventure sports require more physical ability and mental strength.

6.3 (b) Objectives of Adventure Sports

Aim: the main aim of adventure sports is to provide a carefully planned stimulating environment which will help each individual and excellent foundation for creative learning and independence.

Objectives:

- Thrill, excitement and fun.
- Exposure to nature.
- Self assessment.
- Over come fear and develop self confidence

- Enhancement of decision making power.
- Channelizing energy.
- Stress buster.
- Information and knowledge enhancement.
- Development of positive attitude toward life.
- Build concentration.
- Encouragement of social relationship and teamwork.
- Develop motor and cognitive skills, creative learning.
- Inculcate values among the children.

6.3 (c)

Types of Adventure Sports



Types of Activities

Camping: Camping means going away temporarily to a place having temporary accommodation. It is like going away from home to a new home (camp) with limited facilities. There are various types of camping such as scout camp, N.C.C. Camp, N.S.S. Camp, Sports camp, adventure camp and social camp etc.

Rock Climbing

Rock climbing is a sport in which participants climbs up, down or across a natural rock or artificial rockrose. In rock climbing, the objective or goal of a climber is to reach the end point or summit of a prejudiced route without falling. There are different types of climbing such as Aid climbing, foreclosing, trade or traditional climbing “Sport climbing top rope climbing free soloing and bewildering.

Trekking

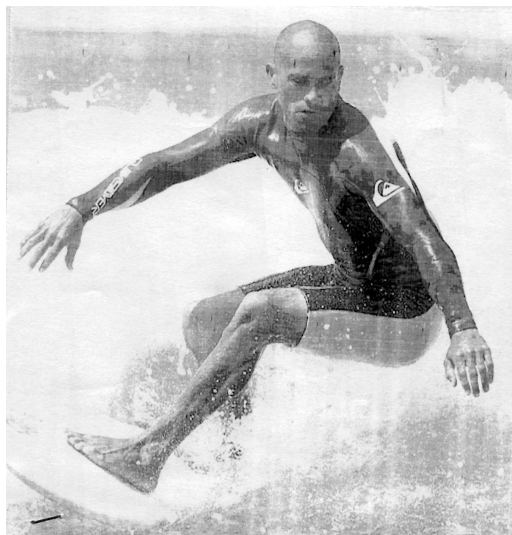
Trekking means going on a long and difficult journey, especially on foot. Its course often includes journey over mountainous regions and woods. Types of trekking

- a) **Easy trekking :** The individuals specially the beginners are offered easy treks.
- b) **Moderates trekking :** Moderates trekking are slightly difficult and challenging than easy treks.
- c) **Strenuous trekking :** Strenuous trekking a lot of physical effort energy and determination is required.
- d) **Difficult trekking :** Such type of trekking is suitable only for real adventure seekers.

River Rafting :

River rafting is another adventure sport. It is a river journey under taken on a raft or boat made of inflatable material. The difficulty of river rafting is from grade I to VI

Mountaineering : Mountaineering is another type of adventurous sports prevailing all over the world. It is one of the finest outdoor opportunities available to the lovers of high places. Mountaineering is an adventurous sport that combines climbing and hiking up mountains or mountain terrains.



Surfing is a surface water sport in which the wave rider, referred to as a surfer, rides on the forward or deep face of a moving wave, which is usually carrying the surfer towards the shore. Waves suitable for surfing are primarily found in the ocean, but can also be found in lakes or in rivers in the form of a standing wave or tidal bore. However, surfers can also utilize artificial waves such as those from boat waves and the waves created in artificial wave pools.

Paragliding



A sport resembling hang gliding, in which a person jumps from an aircraft or high place wearing a wide, rectangular, storable parachute.

Or

Paragliding is the recreational and competitive adventure sport of flying partakers; lightweight, free-flying, foot-launched glider aircraft with no rigid primary structure.

The pilot sits in a harness suspended below a fabric wing comprising a large number of inter connected baffled cells.

6.3 (d) Safety Measures During Adventure Sports

Camping

Safety Measures: Camping sight, must be plain and clean, never approach wild, animals always be alert and aware of your surroundings, look out for snakes, spiders and other creatures, protect your eye, maintain discipline, careful around water,, pay attention to weather condition etc.

Paragliding

Safety Measures: Paragliding safety includes four items:

- 1. Preparation—(a)** Gather information about the weather fore cast, the actual wind conditions, the site etc.
(b) Maintain your equipment with regular inspection and monitoring.
- 2. A Good Launch**
A good launch requires keeping the legs down until clearance of the hill.
- 3. Reaching the landing zone with sufficient altitude for an approach.** During the flight, the number one goal should be to make sure and reach the Landing Zone (LZ) with enough altitude to assess wind conditions and plan a safe approach.
- 4. A good Landing —** Landing in the LZ into or mostly wind is the priority.

6.3 (e) Safety Measures during Physical Activities

Almost anybody can safely take up walking and light to moderate exercise is usually fine for healthy adults with no troublesome symptoms. It is wise to talk to a doctor if you have any questions about your health or plan to start more vigorous workouts, especially if you haven't been active recently.

Tips for Avoiding Injuries during Physical Activities

1. Take 5 to 10 minutes to warm up and cool down properly.
2. Plan to start slowly and boost your activity level gradually.
3. Listen to your body. Hold off on exercise when you are sick or feeling very fatigued.
4. Drink plenty of water during physical activity.
5. Choose clothes and shoes designed for your type of exercise. Replace shoes every six months as cushioning wears out.
6. Exercising vigorously in hot, humid conditions can lead to serious over heating and dehydration. Slow your pace when you feel exhausted.
7. Dress properly for cold - weather workouts to avoid hypothermia.

6.4 Safety Measures to Prevent Sports Injuries

You can reduce the risk of sports injuries if you adopt these safety measures—

1. Warm up thoroughly by gently going through the motions of your sport and performing slow, sustained stretches.
2. Wear appropriate footwear.
3. Tape or strap vulnerable joints, if necessary.
4. Use the appropriate safety equipment, such as mouth guards, helmets and pads.
5. Drink plenty of fluids before, during and after the game.
6. Try to avoid exercising in the hottest part of the day, between 11 am and 3 pm.
7. Maintain a good level of overall fitness, particularly in the off season (in the months between playing seasons for a sport.)

8. Cross-train with other sports to ensures overall fitness and muscle strength.
9. Ensures training includes appropriate speed and impact work so muscles are capable of the demands of a game situation.
10. Don't exert yourself beyond your level of fitness, Gradually increase intensity and duration of training.
11. Use good form and technique.
12. Cool down after sport with gunnel, sustained stretches.
13. Allow adequate recovery time between session.
14. Have regular medical check ups.

OBJECTIVE TYPE QUESTIONS (1 MARKS EACH)

Q.1 Which of the following is not a physical activity?

- | | |
|-------------------|--------------------|
| (a) Dancing | (b) Gardening |
| (c) Domestic work | (d) Reading a book |

Ans. (d) Reading a book

Q.2 Which of the following is not a quality of a good leader?

- | | |
|----------------------------|----------------------------|
| (a) Cooperative | (b) Organisational ability |
| (c) Attractive personality | (d) Richness |

Ans. (d) Richness

Q.3 Another name of adven terous sports is—

- | | |
|----------------------|----------------------------|
| (a) Risk-taking game | (b) Adventure related game |
| (c) Thrilling game | (d) All of the above |

Ans. (d) All of the above

Q.4 Which of the following sport is not related to air?

- | | |
|--------------------|-------------------|
| (a) Paragliding | (b) Free-flying |
| (c) Bungee Jumping | (d) Rock Climbing |

Ans. (d) Rock climbing

Q.5 Which of the following is a water sport?

- | | |
|-------------------|--------------------|
| (a) River Rafting | (b) Skate boarding |
| (c) Trekking | (d) Sky-diving |

Ans. (a) River Rafting

Q.6 Riding on the foward or face of a moving wave is called:

- (a) Surfing
- (b) Paragliding
- (c) Rock climbing
- (d) Scuba-diving

Ans. (a) Surfing

Q.7 Sports injuries can be prevented by:

- (a) Keeping the body hydrated
- (b) Proper diet
- (c) Using of common sense
- (d) All of the above

Ans. (d) All of the above.

Q.8 Which of the following is not an adventurous sport.

- (a) Surfing
- (b) Para-gliding
- (c) Bungee jumping
- (d) Rock climbing

Ans. (c) Bungee Jumping

Q.9 Types of Trekking are

- (a) One
- (b) Three
- (c) Five
- (d) Four

Ans. (d) Four

Q.10 Variometer (A device for indicating an aircraft's rate of climb or decent) is useful for?

- (a) Rating
- (b) Surfing
- (c) Raragliding
- (d) Treaking

Ans. (c) Raragliding

SHORT ANSWER TYPE QUESTION (2 MARKS EACH)

Q.1 What is Leadership Quality? Name any two leadership qualities.

Ans. Leadership is the quality of a person through which he/she influences or enlighten the path of others to achieve the desired goals by the group of people. Leader is the one who, leads gives suggestions, motivates the people in order to achieve specific target these qualities includes:

- Intelligence
- Dedication

Q.2 What type of danger one can face during Surfing?

Ans. Following are the dangers, that can be faced by surfer while doing surfing:

- Drowning
- Collision (with Sand, Rocks, Ice bergs etc.)

- Marine life (sharks, Seals, Snakes, Jelly fish etc.)
- Waves (same can be incredibly Powerful)
- Sea bed (sandy bottom, rocks, reefs etc.)

Q.3 List down the safety equipments to be taken along while going for Rock climbing.

- Ans.**
- | | |
|-----------------------|---------------------|
| 1. Rope | 9. Hammock |
| 2. Harness | 10. Hexes |
| 3. Rubber Sole Shoes | 11. Slings |
| 4. Suitable clothing | 12. Nuts, Iron nuts |
| 5. Helmet | 13. Chalks |
| 6. Holding equipments | 14. Karabiners |
| 7. Anchors | 15. Gloves |
| 8. Daisy chains | 16. Finger Tapes |

Q.4 Write safety measures required during adventurous activities.

- Ans.**
- Use of Proper Safety Equipments
 - Guidance from experts
 - Training can be given before going for adventure sports
 - Activities should be done according to season
 - Avoid over loading
 - Be Hydrated
 - Take pre Health assessments to know the level of your fitness.
 - Warming up your body
 - Follow all guidelines/Introductions given

Q.5 Write a short note on paragliding.

- Ans.** Paragliding is the acrobatic and competitive adventure sport of flying despite not using an engine, paraglider's flight can last many hours and can cover many hundreds of Kilometres by skillful exploitation of sources, the pilot can climb and descend the heights on different attitudes.

SHORT ANSWER TYPE QUESTIONS (3 MARKS EACH)

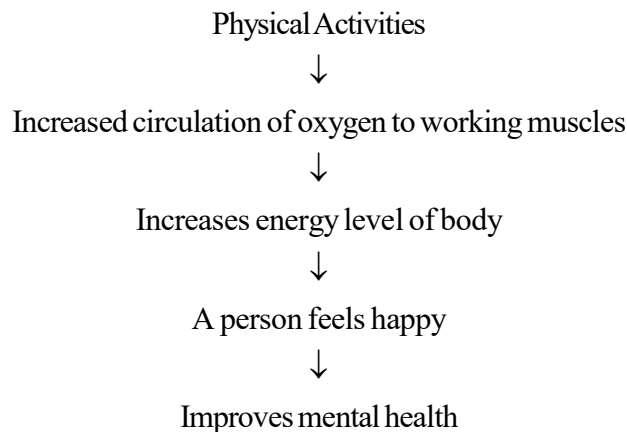
Q.1 Is physical activity increase the quality of life. If yes, then how?

- Ans.** Physical activities can play a major role in increasing the quality of life in following ways:

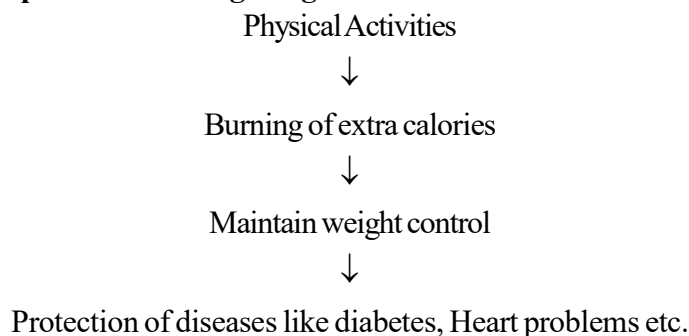
- (1) **Increase in the health of the heart**—The efficiency of heart increases and various changes take place in heart.

- (a) Lower blood pressure
- (b) Less chance of heart attack

(2) **Increase Mental Health**



(3) **Helps in controlling weight**



Q.2 Explain the three qualities of a leader in sports.

- Ans.** (i) **Motivators**—Team players respect a sports leader who is a hard worker and maintains enthusiasm for team goals, as well as for individual player success. One of the most important qualities you need as a coach is passion—for the sport itself and toward individuals on the team.
- A successful sports leader keeps team members motivated and optimistic eventually realizes positive outcomes, such as team cohesion, performance and satisfaction.
- (ii) **Effective communicator in sports**—A team filled with the best players in the league who communicates poorly will, flounder in mediocrity, while a team filled with run of-the mill players who communicates flowlessly

will be contenders every year. Effective communication in sports is an absolute essential trait that quality teams must have to be successful, from the coaches, to team leaders, all the way down to the role players.

- (iii) **Visionaries**—Sports leaders inspire others because they maintain a positive attitude, high morale and persistent drive toward goals, Johnson says. Effective leaders, including coaches and team leaders, are highly focused on a vision for their team and drive others toward outcome and results for achieving that vision.

Q.3 What is trekking and explain the types of trekking.

Ans. Trekking: Trekking means going on a long and difficult journey, especially on foot. Its course often includes journey over mountainous regions and woods.

- (a) **Easy trekking:** The individuals specially the beginners are offered easy treks.
- (b) **Moderate trekking:** Moderate treks are slightly difficult and challenging than easy treks.
- (c) **Strenuous trekking:** Strenuous trekking a lot of physical effort, energy and determination is required.
- (d) **Difficult trekking:** Such type of trekking is suitable only for real adventure seekers.

Q.4 Explain the safety measures during surfing.

- Ans.**
- Always swim or surf at places patrolled by surf lifesavers or lifeguards.
 - Swim between the red and yellow flags. They mark the safest area to swim.
 - Always swim under supervision or with a friend.
 - Read and obey the signs.
 - Don't swim directly after a meal.
 - Don't swim under the influence of drugs or alcohol.
 - If you are unsure of surf conditions, ask a lifesaver or lifeguard.
 - Never run and dive in the water. Even if you have checked before, conditions can change.
 - If you get into trouble in the water, don't panic. Raise your arm for help, float and wait for assistance.
 - Float with a current or undertow. Stay calm. Don't try to swim against it. Signal for help and wait for assistance.

Q.5 What are the safety measures during mountaineering?

Ans. Safety Measures: Mountaineering activities must be done under the experts and experienced leader, should have a thorough knowledge of track route of mountaineering, one should know flora and fauna of the route, always be alert and aware of your surroundings, keep sufficient food for the group, all the equipments should be checked before use, beware of avalanche.

LONG ANSWER TYPE QUESTIONS (5 MARK EACH)

Q.1 What are do's and don'ts for Adventure Activities?

Ans. Do's :

Adventure activities must be organized under the expert guidance.

Proper knowledge of sight and route.

Ensure safety of participants.

Keep first aid arrangement.

Arrangement of good quality of equipment.

Be prepared to face weather change while you are camping.

Bio-degradable and non-biodegradables waste products should be thrown in proper bins.

Cleanliness should be maintained on camp site.

Fire should be properly extinguished during camping in forests or hilly areas.

Don't: Throw eatables and empty bottles on camp site.

Clothes and utensils should not be washed in running rivers and canal waters.

Used plastic cans and aluminum and toffee wrappers should not be thrown on hills and mountains.

People should not defecate and urinate near river banks.

Raincoats or clothes that have been only been used once should not be left in hills.

Cutting of tress is prohibited in forest and hilly areas during camping.

Drinking water river canal water should not be polluted under any circumstances.

There should be no noise pollution during trekking that can disturb the lifestyle of wild animals.

Deforestation is prohibited in forest and hilly areas during camping.

Q.2 How adventure sports helps to inculcate the quality of leadership?

or

How does leadership quality develop through participation in physical education?

Ans. Leadership is nothing but the quality of a person to lead a group. Through participation in adventure sports a numerous quality of leadership develops. They are as:

L : Loyalty, Leadership

E : Endurance, Engaging personality

A : Alertness, Adjustment, Absence of organic or functional defects, Ability to coordinatate activities .

D : Discipline, dutifulness, dependability, desire to help others.

E : Energetic, earnestness.

R : Reliability, right thinking, right judgement.

S : Sincerity, sympathy, self control, sociability, scholarship, sacrifice, super motor capacity.

H : Health, Honesty

I : Intelligence, industriousness, impartiality, interest in teaching.

P : Patience, perseverance, personality, physical skills, public relations.

When a student or individual takes part in adventure sports he or she develops the above qualities. By assigning the duties in physical education it develops confidence, to lead their team. By doing adventure activities, it develops the discipline, confidence and the ability to take decisions. By taking part in those activity the student become energetic, reliable, social and honest.

Different adventure sport activities develop the quality of patience, public relation and it grooms the personality of an individual. Hence at last we can say that through participation in adventure sports, we can develop the leadership qualities in the individual.

Q.3 What are the objective of adventure sports?

or

How adventure sports helps in achieving the objectives of physical education?

Ans. The objectives of physical education are the development of an individual mentally, socially and emotionally fit. Through participation in adventurous sports, following objectives can be achieved.

To develop self confidence : By overcoming the fear and experiencing the thrill one can develop self confidence. To build the concentration : In these sports a person has to be very alert and attentive all the time. It develops the concentration.

To develop mental and physical fitness : These sports help in developing the mental and physical fitness. Such sports fitness skills like jumping, climbing and swimming etc. To improve social relations : During participation in adventure sports qualities like sympathy, co-operation, helpfulness, adjustment, group cohesion, unity, sincerity, patience, fraternity are developed.

To have bonding with Nature: Most of the adventure sports are outdoor activity which give enough opportunities to experience nature which develops the bonding with nature. To face the challenges against the Nature : These sports enhance one's capacity to deal with odd situations with courage and determination.

Proper use of abundant energy : Adventure sports provide the participant a positive and a healthy channelization of their abundant energy.

To provide amusement and excitement : It is the vital objective of adventure sport to provide amusement and excitement.

To encourage creativity: These sports allow and encourage creativity of an individual.

Inculcate adventure : Motivate to learn sportsmanship.

Q.5 Explain the safety measures during paragliding.

Ans. With a good attitude, safety during paragliding can be simplified into four elements for each flight to be safe.

These four items are :

Preparation

A Good Launch

Reaching the Landing Zone with Sufficient Altitude for an Approach

A Good Landing

Preparation

Gather information about the weather forecast, the actual wind conditions, the site and anything that will help you decide if flying on such a day and time will be safe.

Maintain your equipment with regular inspections and monitoring.

Prior to each flight do a thorough preflight of your equipment. If there are any issues, do not fly!

Do a harness connection check prior to each flight.

Check your own mindset and fly only when you feel sure you are in the correct state of mind.

Practice regularly your ground handling and launch techniques to keep them current for each technique.

Make all of the above a routine that you do out of habit. Habits make all of the above much more predictable and harder to forget.

A Good Launch

Each successful flight begins with a good launch that includes keeping the legs down until well clear of the hill.

During each launch, have the ability and be prepared to abort quickly if any factor does not feel right or goes wrong. Knowing when to abort and having this ability will make you a better pilot.

Reach the Landing Zone with Adequate Altitude

During the flight, the number one goal should be to make sure and reach the LZ with some enough altitude to assess wind conditions and plan a safe approach.

Any other goals during the flight fall below this priority!

Failure to reach the LZ will mean landing out. Landing out is much more hazardous and greatly increases the chances for an accident.

A Good Landing

Each successful flight ends with a nice landing.

Landing in the LZ into or mostly into the wind is the priority.

Practice landing approaches and master being able to land as close as possible to your intended target.

Practice flair timing and touch on each and every flight.

MIND MAPPING

Leadership is the art of motivating a group of people to act towards achieving a common goal.

1. LEADERSHIP QUALITIES OF R LEADER

1. Personality of a Leader
2. Intelligent and Knowledgeable
3. Punctual
4. Decisive
5. Broad Minded and Foresighted
6. Disciplined and Honest
7. Courageous and Confident
8. Unbiased
9. Good Orator
10. Sense of Humour
11. Determination
12. Good Moral Character
13. Enthusiastic
14. Idol for Followers

2. ROLE OF LEADER

1. Provide a Vision
2. Structure the situation
3. Control group behaviour
4. Plan for the group
5. Execution of plan
6. Evaluate the progress
7. Leader as a Representative
8. Leader as an Effective Role Model

3. CREATING LEADERS THROUGH PHYSICAL EDUCATION

1. Appointing a student as a leader of mass exercise
2. Entrusting the responsibility of organising & conducting minor games
3. Appointing a student as captain of a team
4. Assigning duties for preparations of grounds
5. Allowing a student to officiate in intramural competition
6. Appointing the students as members as well as incharges for various school committees

4. ADVENTURE SPORTS

“Adventure sports have been best defined as outdoor sports or activities in which the participant competes in a natural environment more against themselves than against others.”

Aim of Adventure Sports : Provide a carefully planned stimulating environment which will help each individual and build excellent foundation for creative learning and independence.

OBJECTIVES OF ADVENTURE SPORTS

1. Developing Cooperation and team work
2. Overcome Problems
3. Develop physical fitness
4. Knowledge about the forest resources
5. Develop thrill and recreation
6. Development of curiosity and imagination
7. Understanding nature
8. Developing positive attitude towards life
9. Helps in development of self confidence
10. Develop concentration

5. CLASSIFICATION OF ADVENTURE SPORTS ACTIVITIES

1. **ROCK CLIMBING :-** Rock Climbing is an activity in which participants climb up, down or across natural rock formations or artificial rock walls.

2. **TREKKING :-** Trekking can be defined as “to travel by foot through remote destinations that are, in most case, inaccessible and unknown to the visitor.”
3. **RIVER RAFTING :-** Rafting or White water rafting is the challenging recreational outdoor activity of using an inflatable raft to navigate a river or other bodies of water.
4. **MOUNTAINEERING :-** Mountaineering or mountain climbing is the sport of hiking, skiing, and climbing mountains.
5. **SURFING :-** Surfing is a surface water sport in which the wave rider, referred to as a surfer, rides on the forward or deep face of a moving wave, which is usually carrying the surfer toward the shore.
6. **PRRAGLIOING :- PARAGLIDING** is a sport in which a wjde canopy resembling a parachute is attached to a person's body by a harness in order to allow them to glide through the air after jumpingfrom or being lifted to a height.

7. COMMON INJURIES OF ADVENTURE SPORTS

1. **Rock Climbing :** Injuries in rock climbing may occur due to falls, or due to overuse of a particular body part (occurring in the fingers, elbows, and shoulders).
2. **Trekking:** Skin Lacerations, eye irritation, dry eyes, twisted ankle etc.
3. **River Rafting:** Sprains/strains, dislocations, fractures, lacerations, abrasions, contusions etc.
4. **Mountaineering :** Trauma, musculoskeletal and soft tissue injuries in the fingers, shoulders,elbows, knees, back.
5. **Surfing:** Lacerations like cuts and scrapes, sprains, dislocations and fractures, swimmer's ear and surfer's ear.
6. **Paragliding:** Sprain, fracture in legs and ankles.

Unit - 7

Test, Measurement and Evaluation in Sports

Main Point :-

- ✍ 7.1 Definition of Test
- ✍ 7.2 Definiton of Measurement
- ✍ 7.3 Definition of Evaluation
- ✍ 7.4 Importance of Test, Measurement and Evaluation
- ✍ 7.5 Calculation of B.M.I and Waist-Hip ratio
- ✍ 7.6 Somato-Types (Endomorph, Mesomorphy & Ectomorphy)
- ✍ 7.7 Measurement of Health Related Fitness

7.1 Test

“A test is a tool which is used to evaluate the skill, knowledge, capacities or aptitudes of an individual or a group.”
—*Webster Dictionary*

“A Test is a tool which is used to evaluate the quality, performance and reliability of the task completed by a person.”

7.2 Measurement

“Measurement is a collection of data and information about certain skill or level of fitness of an individual by using test and relevant techniques.”

“Measurement is about the collection of data about performance or task completed by a sports person by using a test.”

“Measurement refers to the process of administering a test to obtain quantitative data.”
—*H.M. Barrow*

7.3 Evaluation

“It is a systematic determination of a subject's merit, worth and significance, using criteria governed by a set of standards.”
—*Shuffle Board*

“It is the process of education that involves collection of data from the products which can be used for comparison with the preconceived criteria to make judgement.”

7.4 Importance of Test, Measurement and Evaluation in Sports

- To frame the objectives.
- To help the selection of player.
- To help to evaluate the learners.
- To evaluate the teaching programme.
- To know the capacities and abilities of players.
- To study the need of the participants.
- Help to conduct the research.
- Help to Achieve Aims and Objectives.
- Help to prepare norms and standards.
- Help to predict in advance the performance potentials of player.
- To help the individual game classification of player.

7.5 (a) Body Mass Index (BMI)

BMI of any individual can be calculated with the help of the following formula.

$$\begin{aligned}\text{Body Mass Index (BMI)} &= \frac{\text{Body weight}}{\text{Height} \times \text{Height}} \quad \text{or} \\ &= \frac{\text{Body weight (in Kg)}}{\text{Height} \times \text{Height (in Metre)}}\end{aligned}$$

Here the weight of the individual's is measured in kilograms and the Height of that individual is taken in meter.

Example 1: Calculate the BMI of a male person whose body weight is 80 kg and his height is 1.60 m. Also state the category in which he falls?

Solution:

Body weight = 80 kg
Height = 1.60 m

$$\begin{aligned}\text{BMI} &= \frac{\text{Weight (in Kg)}}{\text{Height} \times \text{Height (in Metre)}} \\ &= \frac{80}{1.60 \times 1.60} = \frac{80 \times 100}{16 \times 16} = \frac{8000}{256} = 31.25\end{aligned}$$

He falls obesity type I.

BMI Table

BMI is categorized below:

Category	BMI
Under weight	< 18.5
Normal weight	18.5–24.9
Over weight	25.0–29.9
Obesity class I	30.0–34.9
Obesity class II	35.0–39.9
Obesity class II	> 40.0

7.5 (b) Waist Hip Ratio (W.H.R.)

Waist-hip ratio is defined as the measurement of waist circumference divided by Hip circumference.

It is used as a risk factor assessment tool for heart diseases, Hypertension and Type-II diabetes. Excess body fat is considered a risk factor of deceases.

$$\text{Waist hip ratio (W.H.R.)} = \frac{\text{Waist circumference (in inches)}}{\text{Hips circumference (in inches)}}$$

Waist-Hip Ratio (Males)			Waist-Hip Ratio (Females)			
BMI	< 0.85	0.85–1.0	≥ 1.0	≤ 0.70	0.70–0.85	> 0.85
20 to < 25	Very low	Low	Moderate	Very low	Low	Moderate
25 to < 25	Low	Moderate	High	Low	Moderate	High
30 to < 25	Moderate	High	Very high	Moderate	High	Very high
35 to < 25	High	Very high	Very high	High	Very high	Very high
≥ 40	Very high	Very high	Very high	Very high	Very high	Very high

Example 2: *If an individual (male) waist circumference measurement is 30 inches and hip circumference measurement is 44 inches. Then calculate his waist hip ratio. Also state the category of his health risk.*

Solution:

Waist circumference = 30"

Hip circumference = 44"

$$\begin{aligned}\text{W.H.R.} &= \frac{\text{Waist circumference}}{\text{Hips circumference}} \\ &= \frac{30}{40} = 0.68\end{aligned}$$

It means the individual (male) is not at health risk. In case of male if the W.H.R. Is more than 1.00, than he is at the health risk.

Example 3: *If the waist circumference measurement of a female is 30 inches and her hip circumference measurement is 32 inches. Then calculate her W.H.R.*

Solution:

Waist circumference = 30"

Hip circumference = 32"

$$\begin{aligned}\text{W.H.R.} &= \frac{\text{Waist circumference}}{\text{Hips circumference}} \\ &= \frac{30}{32} = 0.93\end{aligned}$$

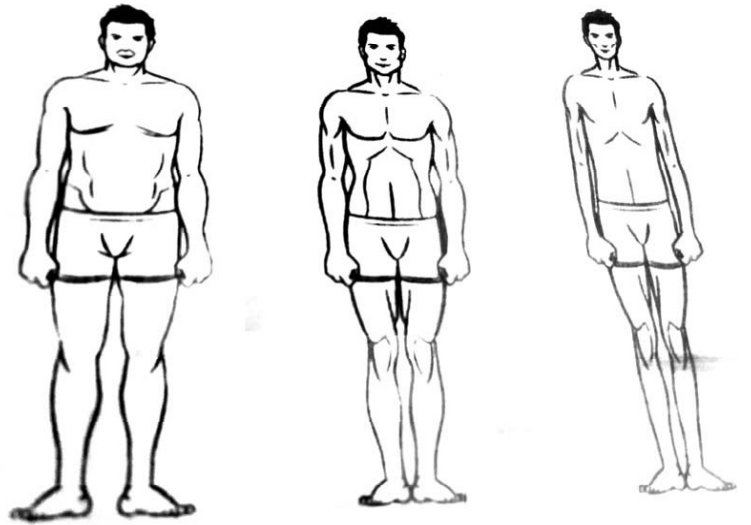
In case of female, if the W.H.R. Is more than 0.85, she is at the health risk. Therefore above W.H.R. of a female is under very high health risk.

7.6 Somato Types (Endomorph, Mesomorph, Ectomorph)

Somata types means human body shape and physique type.

According to W.H. Shielding, human beings can be classified into three extreme body types i.e.

1. **Endomorphy:** People with endomorph body structure have rounded physique. Their excessive mass hinders their ability to compete in sports. Suitable games weight lifting and power lifting.
2. **Mesomorphy:** People with mesomorphy body structure have thick bones and muscles with rectangular shaped body. They have larger and broader chest and shoulders can be top sports person in any sport.
3. **Ectomorphy:** These realism person because their muscles and limbs are elongated. They have flat chest and have less muscle mass. They have less strength but dominate endurance sports.



Endomorphy

Mesomorphy

Ectomorphy

7.7 Measurement of Health Related Fitness

Health related fitness is related with the development and maintenance of fitness components that can increase the level of health through prevention and remedies of various diseases. Health related fitness enhance one's ability to function efficiently and maintain a healthy life-style.

In this way, it can be said that health related fitness is very significant for all the individuals through our life.

There are following components of health related fitness.

1. Body composition
2. Cardiorespiratory endurance.
3. Flexibility
4. Muscular Endurance
5. Muscular strength

1. **Body composition:** The body composition means the amount of fat-free body weight. It is well known that a high percentage of body fat in relation to the total body weight is harmful and may lead to be obesity. From the health point of view, the normal percentage of body fat for young men and women should not exceed 15 and 25 percent, respectively. Various methods for measuring body composition can be used by individuals, such as under water weighing, skin fold measurements and anthropometric measurements.

It means that for health related fitness an individual should have ideal body weight and fat percentage.

2. **Cardiorespiratory endurance:** It is the maximum functional capacity of the cardiorespiratory system to carry on the work or physical activity involving large muscle group over an extended period.
3. **Flexibility:** It is the range of movements of joints. It is important for all individuals in daily life. It can be classified into passive flexibility and active flexibility. Active flexibility can be further classified into: Static flexibility and dynamic flexibility.

Flexibility can be measured with help of sit and reach test.

4. **Muscular Endurance:** Muscular endurance is the ability of a muscle or group of muscles to repeat muscular contractions against a force or to carry on contraction over a maximum period.

It can be measured by the number of sit-ups you can do correctly. It also measured by weight lifting etc.

5. **Muscular strength:** It is the maximum amount of force that can be exerted by a muscle or muscle group against a resistance during a single contraction.

It can be measured by pull-ups, weight lifting and push ups etc.

MIND MAPPING

TEST: A tool to evaluate the skill, knowledge, capacities or aptitudes of an individual or a group.

MEASUREMENT: The process of administering a test to obtain quantitative data.

EVALUATION: An appraisal or examination of something to determine its worth or fitness.

1. IMPORTANCE OF TEST AND MEASUREMENT IN SPORTS

1. Talent Identification
2. Selection of athletes
3. Identify Weaknesses and Strengths
4. Monitor Progress
5. Goal Setting
6. Motivation
7. Effective Planning
8. Identifying Potential
9. Training Methods
10. Research and Experimentation

2. BODY MASS INDEX (BMI)

Body Mass Index (BMI) is a measure of body fat which is calculated on the basis of weight and height.

BMI is calculated by using the body mass index formula = $\frac{\text{Weight (In kgs)}}{\text{Height in m}^2}$

3. WAIST-hip RATIO (WHR)

Waist-hip ratio (WHR) is defined as the circumference of the waist divided by circumference of the hip.

Formula for waist hip ratio is: Waist circumference/ Hip circumference

4. TYPES OF PERSONALITY ON THE BASIS OF PHYSICAL TRAITS

According to William Herbert Sheldon, there are three types of personalities on the basis of physical traits:

- (i) **Endomorph:** Physically quite 'round', have short arms and legs. Wide hips and narrow shoulders, Pear shaped. Fat spread across the body. Slim ankles and wrists.

Psychologically, the endomorph is: Sociable, Fun-loving, food lover, Tolerant, Even-tempered, Good humored, Relaxed, With a love of comfort, Need for affection.

- (ii) **Ectomorph :** Narrow shoulders and hips, thin and narrow face, with a high forehead/thin and narrow chest and abdomen. Thin legs and arms, Very little body fat.

Psychologically they are: Self-conscious, Private, Introverted, Inhibited socially anxious, Artistic, Intense, emotionally restrained. Thoughtful.

- (iii) **Mesomorph:** Large head, broad shoulders and narrow waist (wedge-shaped). Muscular body, with strong forearms and thighs. Very little body fat. Psychologically, they are: Adventurous, Courageous, Indifferent to what others think or want. Assertive/bold, Zest for physical activity, Competitive, With a desire for power/dominance, love of risk/Chance.

5. MEASUREMENT OF HEALTH RELATED FITNESS

Overall fitness is made up of five main components:

1. CRRDIO-RESPIRRTORY ENDURANCE

Cardiorespiratory endurance is the ability of the body's circulatory and respiratory systems to supply fuel during sustained physical activity.

Cardiorespiratory Endurance is measured by THREE MINUTE STEPTEST. Its Purpose is To measure cardio-respiratory endurance.

2. MUSCULAR STRENGTH

Muscular strength is the ability of the muscle to exert force during an activity.

Measurement of muscular Strength:

(a) PARTIAL CURL UP

Purpose: To measure abdominal strength and endurance.

(b) PUSHUP

Purpose: To measure upper chest and shoulder strength.

3. MUSCULAR ENDURANCE

Muscular endurance is the ability of the muscle to continue to perform without fatigue.

Measurement of muscular Endurance: 600 M RUN/WALK

Purpose: To measure endurance and aerobic fitness.

4. BODY COMPOSITION

Body composition refers to the relative amount of muscle, fat, bone, and other vital part of the body.

Measuring body composition (estimating per cent body fat)

SKIN FOLD MEASUREMENT

Purpose: To measure the triceps and calf skin fold thicknesses (on the right sides of the body) for calculating per cent body fat.

5. FLEXIBILITY

Flexibility is the range of motion around a joint.

Measurement of Flexibility

SIT AND REACH TEST

Purpose: To measure flexibility of lower back and hamstrings.

OBJECTIVE TYPE QUESTIONS (1 MARKS EACH)

Q.1. Which of the following body type like a pear shape?

- | | |
|---------------|-----------------------|
| (a) Endomorph | (b) Mesomorph |
| (c) Ectomorph | (d) None of the above |

Ans. (a) Endomorph

Q.2. Which of the following body type like a round shape?

- | | |
|---------------|-----------------------|
| (a) Endomorph | (b) Mesomorph |
| (c) Ectomorph | (d) None of the above |

Ans. (b) Mesomorph

Q.3. Which of the following body type like a slim shape?

- (a) Endomorph (b) Mesomorph
- (c) Ectomorph (d) None of the above

Ans. (c) Ectomorph

Q.4. Which of the following body type person good for weight lifting activity?

- (a) Endomorph (b) Mesomorph
- (c) Ectomorph (d) None of the above

Ans. (a) Endomorph

Q.5. Which of the following type of people good for adventure activity?

- (a) Ectomorph (b) Mesomorph
- (c) Endomorph (d) None of the above

Ans. (b) Mesomorph

Q.6. Which of the following body type of people good for gymnastic activities?

- (a) Endomorph (b) Mesomorph
- (c) Ectomorph (d) None of the above

Ans. (c) Mesomorph

Q.7. What is the full form of B.M.I.?

- (a) Body Management Index (b) Body Mold Index
- (c) Body Mass Index (d) Body Motivation Index

Ans. (c) Body Mass Index

Q.8. Which one of the following formula for calculation of BMI?

- (a) $\frac{\text{Weight of body}}{\text{Height of body}}$ (b) $\frac{\text{Weight of body}}{\text{Length of body}}$
- (c) $\frac{(\text{Length of body})^2}{\text{Weight of body}}$ (d) $\frac{\text{Weight of body (in kg)}}{(\text{Height of body})^2 \text{ (in mtr.)}}$

Ans. (d) $\frac{\text{Weight of body (in kg)}}{(\text{Height of body})^2 \text{ (in mtr.)}}$

Q.9. Which of the following formula of calculation waist hip ratio?

- (a) $\frac{\text{Circumference of waist}}{\text{Circumference of hip}}$ (b) $\frac{\text{Circumference of hip}}{\text{Circumference of waist}}$
 (c) $\frac{\text{Circumference of waist}}{(\text{Circumference of hip})^2}$ (d) None of the above

Ans. (a) $\frac{\text{Circumference of waist}}{\text{Circumference of hip}}$

Q.10. What is the range of healthy body mass index?

- (a) 20–25 (b) 25–30
 (c) 18.5–24.9 (d) 30.0–34.9

Ans. (c) 18.5–24.9

SHORT ANSWER TYPE QUESTIONS (3 MARKS EACH)

Q.1 Define Test, measurement and evaluation.

Ans. “Test in the form of questioning or measuring used to assess retention of knowledge, capacity or ability of some endeavour”.

—Barry L. Johnson and Jack Nelson

“Measurement refers to the process of administering a test to obtain quantitative data.”

—H.M. Barrow

“Evaluation is the art of judgement scientifically applied to some trait, quality or characteristic in the universe according to some predetermined standards”.

—H.M. Barrow and MC.

GEE

Q.2. Write any four objectives of test, measurement and evaluation.

Ans.

- To know the abilities and capacities of person
- To evaluate the teaching learning process
- To establish the goals
- To motivate the students.

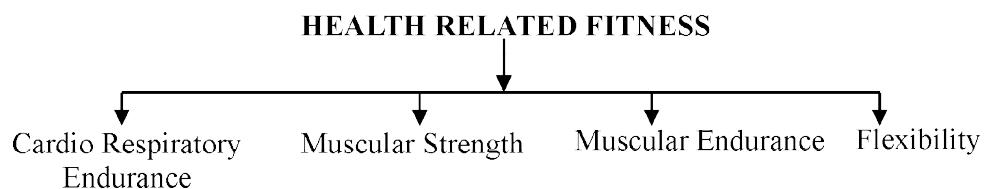
Q.3. Write down the formula for calculating BMI and Waist Hip Ratio.

Ans. Body mass Index (BMI) = $\frac{\text{Weight in Kg}}{(\text{Height in Meters})^2}$

Waist Hip Ratio = $\frac{\text{Circumference of waist (in inches)}}{\text{Circumference of hip (in inches)}}$

Q.4. Enlist the Components of Health Related Fitness.

Ans.



Q.5. Explain the Somato types.

Ans. Somato type is a classifications of a person into category, which is assigned according to the their physical (Body type) which was developed in 1940 by American Psychologist William Herbert Sheldon to categorize human physique into three fundamental cetagories: Endomorph, Mesomorph and Ectomorph.

SHORT ANSWER TYPE QUESTIONS (3 MARKS EACH)

Q.1 What do you mean by BMI ? Write down the scale of BMI.

Ans. BMI is a statistical measurement that let us know whether the person is underweight, normal weight or overweight.

BMI is categorized as below -

Category	BMI
Underweight	< 18.5
Normal Weight	18.5-24.9
Overweight	25.0-29.9
Obesity Class I	30.0-34.9
Obesity Class II	35.0-39.9
Obesity Class II	> 40.0

Q.2 Enlist the different health related fitness components. Explain any one component measurement procedure?

Ans. These are the following components of health related fitness.

1. Body composition
2. Cardio-respiratory Endurance
3. Flexibility

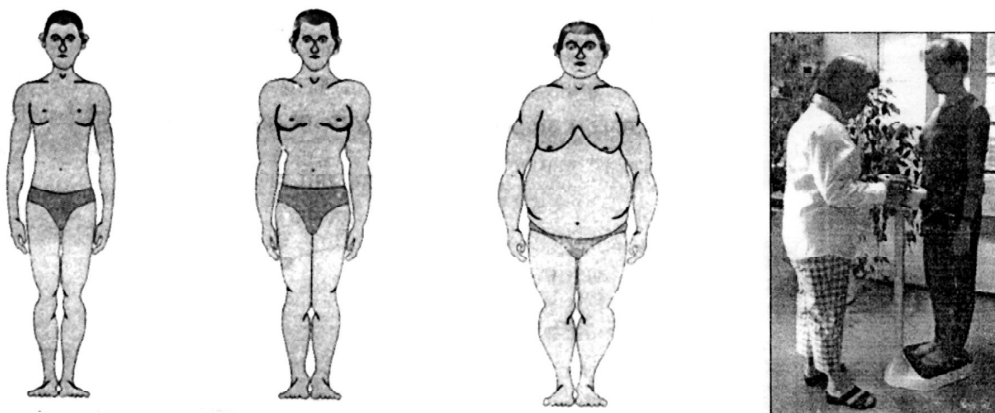
4. Muscular endurance
5. Muscular strength

Measurement of Flexibility: It is the ability to use your joint fully. You are flexible when the muscles are long enough and the joint are free enough to allow movement. People with good flexibility have fewer sore and injured muscles. Stretching before and after activities will improve flexibility. The sit-and-reach and the trunk lift are two test used to measure flexibility.

Q.3 Explain the procedure of measuring Somato Types in brief.

Ans. Somatotypes means human body shape, and physique types. Somato types helps the physical education and sports teaches to classify the students for particular sports and games on the basis of physical, mental and practical aspects.

1. **Endomorphy:** Such individuals have short arms and legs and rounded physique. The upper parts of arms and legs are significantly thicker than the lower parts. Their excessive mass hinders their ability to compete in sports.
2. **Mesomorphy:** Such individuals have balanced body compositions and athletic physique. They are able to increase their muscle size quickly and easily and have rectangular shapes body. Their chest and shoulders are broader in comparison to their waist line.
3. **Ectomorphy:** These individuals are generally slim because their muscles and limbs are elongated. As they have weak constitution of body and usually face difficulties in gaining weight. Their light body constitution makes them suited for aerobic activities like gymnastics.



Q.4 Calculate the BMI of a male person whose body weight is 70 kg and his height is 1.70 m. Also state the category in which he falls?

Ans.

Body weight = 70 kg

Height = 1.70 m

$$\begin{aligned}\text{BMI} &= \frac{\text{Weight}}{(\text{Height})^2} \\ &= \frac{70}{(1.70)^2} \\ &= \frac{70 \times 100 \times 100}{170 \times 170} \\ &= \frac{700000}{28900} = 24.22\end{aligned}$$

He falls in Normal Weight category.

Q.5 Calculate waist Hip Ratio of a Female whose waist is 30 inches circumference and 38 inches. Also state the category in which she falls?

Ans. Circumference of waist = 30 inches

Circumference of Hip = 38 inches

$$\begin{aligned}\text{Waist Hip Ratio} &= \frac{\text{Circumference of waist}}{\text{Circumference of Hip}} = \frac{30}{38} \\ &= 0.789\end{aligned}$$

She Falls in Low Risk Zone of Health Problems like diabetes, cardiovascular disorders. High blood pressure etc.

LONG ANSWER TYPE QUESTIONS (5 MARKS EACH)

Q.1 Explain any four importance of test, measurement & evaluation in detail?

Ans. The four importance in the physical education field are given below of test, measurement & evaluation:

- 1. To frame the objectives:** Test and Measurement helps in setting the target or goal according to the need and requirement. By adopting the

Test and Measurement techniques the physical education teachers get an accurate idea about the progress made by the students.

2. **To evaluate the learners:** In the field of physical education and sports Test and Measurement helps in collection of data which further helps in evaluating the learners ability separately. It also helps the sports person in enhancing his sports performance.
3. **To evaluate teaching programme:** Test and Measurement is a scientific tool which helps the teacher to adopt correct methodology upon the sportsman so that desired results may be achieved.
4. **To discover the needs and requirements of the participants:** Needs of the participants are correctly assessed by the scientific approach of Test and Measurement. It helps in knowing where more emphasis is needed so that target may be achieved.

Q.2 Enlist different of health related fitness components. Explain any three of them in detail?

Ans. These are the following health related components:

- (i) Body composition
 - (ii) Cardio-respiratory endurance
 - (iii) Flexibility
 - (iv) Muscular endurance
 - (v) Muscular strength.
- (iii) Flexibility:** It is the range of movement around a joint. It is important for all individuals in daily life. It can be classified into passive flexibility and active flexibility. Active flexibility can be further classified into static flexibility and dynamic flexibility. Flexibility can be measured with the help of “Sit and Reach Test”.
- (iv) Muscular endurance:** It is the ability of muscle or muscle group to repeat muscular contraction against a force over a maximum period. It can be measured by ‘weight lifting’ and sit-ups etc.
- (v) Muscular strength:** Muscular strength is the maximum amount of force that can be exerted by muscle or muscle group against the resistance during the single contraction.
- It can be measured by push-ups, heavy weight lifting and pull-ups etc.

Q.3 What is the difference between Endomorph and Mesomorph types of personalities?

Ans.

Endomorph

- (i) An individuals have short arms and legs.
- (ii) An individuals have rounded physique.
- (iii) Under developed muscles
- (iv) High fat storage
- (v) Pear shaped body
- (vi) Less ability to compete in sports.
- (vii) They are less active.

Mesomorph

- (i) An individuals have balanced body composition.
- (ii) An individuals have athletic physique.
- (iii) Strong muscles.
- (iv) Fat evenly stored all over the body.
- (v) Rectangular shaped body.
- (vi) Can excel in sports.
- (vii) They are capable of doing lot of activities.

Unit - 8

Fundamentals of Anatomy and Physiology and kinesiology in Sports

Main Point :-

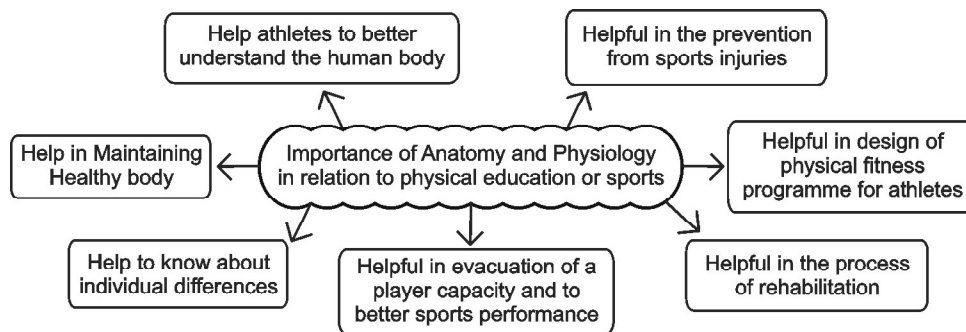
- ✍ 8.1 Defination and importance of Anatomy, Physiology and Kinesiology
- ✍ 8.2 Functions of skelatel system, classification of bones and Types of joints.
- ✍ 8.3 Properties and Functions of muscles
- ✍ 8.4 Function and structure of Respiratory system and circulatro system
- ✍ 8.5 Equilibrium Dynamic and Static, centre of Gravity and its application in sports.

8.1 Anatomy : Anatomy is a branch of biology that deals with the study of body structure of organism which includes ten systems, organs and tissues.

Physiology: Physiology is the branch of biology that deals with the functions and activities of living organisms and their parts, including all physical and chemical processes.

Kinesiology: Kinesiology is the study of human or non-human movements, performance and functions by applying the science of biomechanics, anatomy, physiology, psychology and neuroscience.

Importance of Anatomy, Physiology and Kinesiology

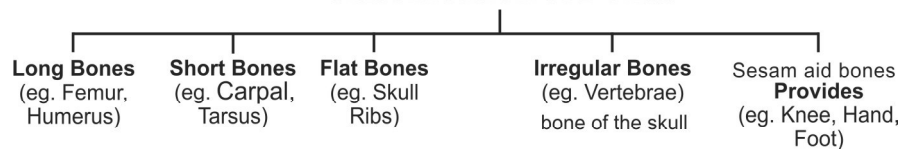


8.2 Skeleton System: This is the bony frame work of body consisting of numbers of bones. Total bones in human body are 206 in adults and 213 in newborn.

Functions of skeleton system



Classification of Bones



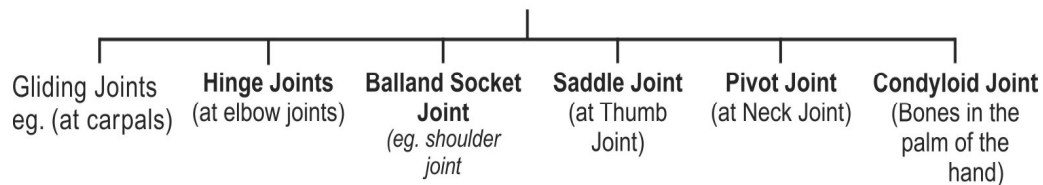
Types of Joints

- | | |
|--|--|
| 1. Immovable Joints: or fibrous joints | These joints are fixed and do not move e.g.. Skull Joint |
|--|--|

2. Slightly Movable Joints: The movement of such joints is very limited or cartilagenous joints e.g., Inter-vertebrations.
3. Freely Movable Joints: Such joints are freely movable or synovial joints

Synovial or Freely Movable

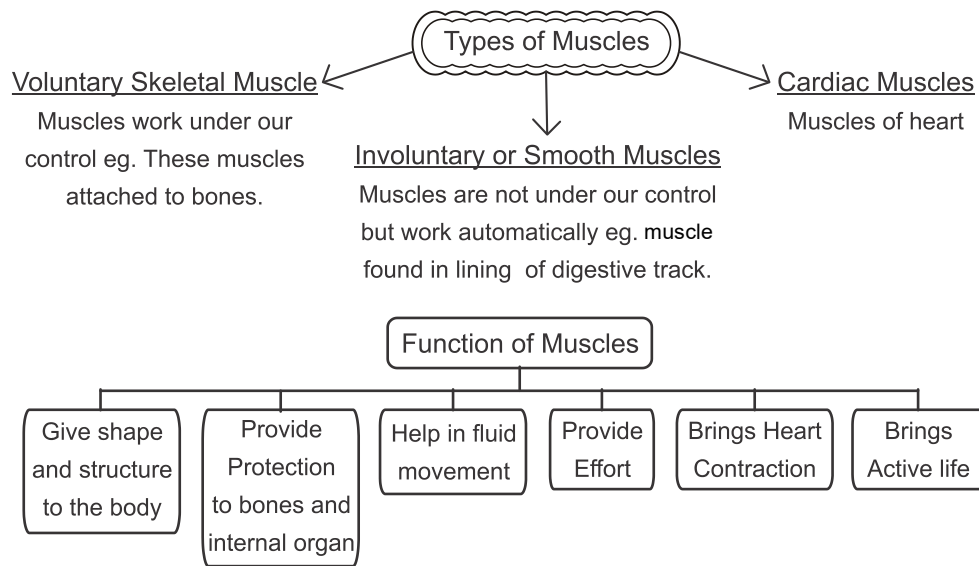
Joints are divided into six categories



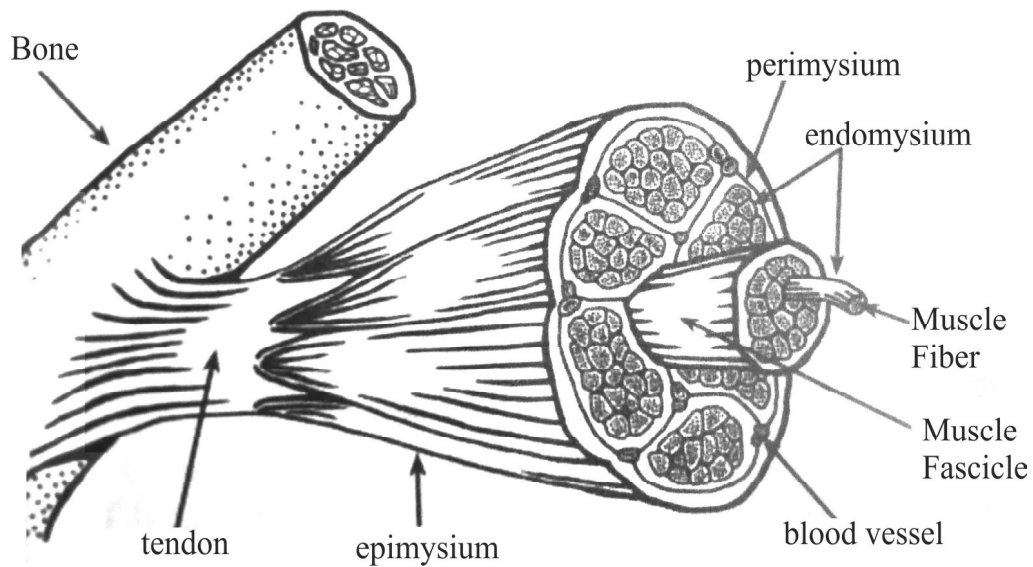
8.3 Muscular System : Properties of Muscles

Definition of Muscle : Muscle is the tissue composed of fibers capable to effect bodily movement or muscle is the body tissue that can contract to produce movement.

1. Excitability—Excitability is the ability of a muscle to activate. If the excitability of the muscle is greater, its force, velocity and indurance will also be greater.
2. Contractibility—Contractibility is the ability of the muscle to shorten forcibly when it is simulated adequately. The muscle changes its shope when stimulated.
3. Extensibility—Extensibility is the ability of the muscle to be stretched or intended. The muscle fibers shorten while contracting. But they can be streched, then beyond their resting length when relaxed. If muscle tissue could not strech, you would not have the mobility you have.
4. Elasticity—Elasticity is the ability of the muscle tissue to return to its normal resting length to return to its normal resting length and shape after being stretched. If the muscle tissue does not have elasticity, it would remain as its stretched length.

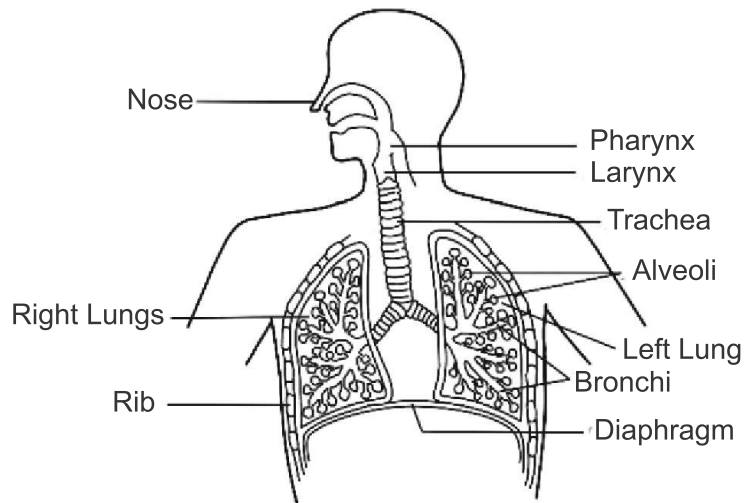
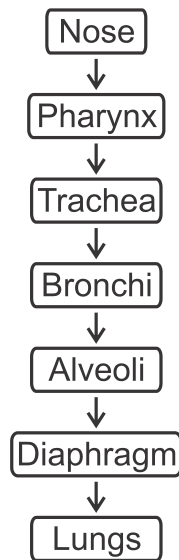


Structure of Muscle : Every muscle fibre made up of very large number of microscopic threads called myofibril. Each myofibril consists of protein molecules called Actin and myosin.



8.4 Structure and functions of Respiratory system and circulatory system:

Respiratory System: The Respiratory system regulates the exchange of gases. Structure of the respiratory system involves the following organs in human beings



Types of Respiration

1. External Respiration
2. Internal or Tissues Respiration

Functions of Respiratory no System

- To provide oxygen to blood
- Removal of waste products from the body e.g.. CO_2
- Maintain body temperature
- It affects circulation of blood

Structure of Heart and introduction of circulatory system

Circulatory System : Circulatory system serves the function of transporting materials in the body. It consist of heart and blood vessels (arteries, veins, capillaries)

Heart:	The human heart is a hollow cone-shaped muscular organ. It is a pumping system inside the body.
Structure of Heart:	The heart is divided into four chambers. A septum divides it into a left and right side. Each side is further divided into an upper and lower chambers. The upper two chambers called auricles and the bottom chambers are ventricles.
Function of Heart :	<ul style="list-style-type: none"> • Systemic Circulation • Pulmonary Circulation
Arteries -	Arteries are blood vessels that take blood away from the heart, except for pulmonary artery, which carries deoxygenated blood from the heart to the lungs.

Classification of Arteries



Veins	:	Veins are blood vessels that return blood to the heart.
Capillaries	:	Exchange of material take-place in capillaries.
Blood	:	Blood is a special mixture of fluid which acts as a medium of transporting nutrients and gases from one part of body to another.
Heart Rate	:	It is number of pumping of heart in one minute.
Stroke Volume	:	It is the volume of blood pumped by heart in one beat. It is approximately 80 ml per beat in normal adult, whereas trained players have 100 ml per beat as stroke.
Cardiac Output	:	Stroke volume x heart rate. It is 5 to 6 liters at basal level.
Blood Pressure	:	It is the force exerted by the blood on the walls of the blood vessels
Second Wind	:	The breathlessness caused due to prolonged exercise is removed automatically by our body. It is called as second wind.
Oxygen Debt	:	The amount of oxygen taken by an athlete during the recovery period after strenuous activity is called oxygen debt.

8.5 Equilibrium : DYNAMIC AND STATIC AND CENTER OF GRAVITY AND ITS APPLICATION IN SPORTS

Equilibrium : It is defined as a state of balance or a stable situation, where opposite forces cancel each other out and where no changes are occurring.

Types of Equilibrium

- (i) **Dynamic Equilibrium :** It is the balance of the body during movement.
- (ii) **Static Equilibrium :** Dynamic stability is a balance of the body during its rest or stable position.

Or

Static equilibrium is when the centre of gravity is in a stable position.

GUIDANCE PRINCIPLES TO DETERMINE THE DEGREE OF STABILITY

1. Broader the base, greater the stability.
2. Lower the centre of gravity, higher the stability
3. When the body is free in the air, if the head and feet moves then hips help move up and vice-versa.
4. Body weight is directly proportional to stability.

Centre of gravity : Centre of gravity is that point in a body or system around which its mass or weight is evenly distributed or balanced and through which the force of gravity acts. The centre of gravity is fixed, provided the size and shape of the body do not change.

MIND MAPPING

ANATOMY: Scientific study of living things, their systems, organs and tissues.

PHYSIOLOGY: Study of how living organisms perform the various functions of life.

KINESIOLOGY: Scientific study of human or non-human body movement. Kinesiology addresses physiological, biomechanical and psychological dynamic principles and mechanisms of movement.

1. IMPORTANCE OF ANATOMY AND PHYSIOLOGY

- (i) Helps in physical fitness
- (ii) Provides knowledge about body structure

- (iii) Helps in selection of sports
- (iv) Protects from sports injuries
- (v) Helps in the process of rehabilitation
- (vi) Helps in maintaining healthy body
- (vii) Helps to know about individual differences

2. IMPORTANCE OF KINESIOLOGY

1. Understand and analyze movements of the human body and to discover their underlying principles.
2. Understand the basis of motor skills and how to carry out efficient movements.
3. Understand the interlink between human structure and function.
4. Knowledge regarding mechanical basis of human motion.
5. Knowledge regarding basic principles required to receive impact and avoid Injuries.
6. Knowledge regarding efficient movements as a part of daily living in order to achieve optimum quality of function.

3. SKELETAL SYSTEM

Bony framework of our body. These bones differ in size and shape. Children have 213 bones and adults have 206.

1. **Axial Skeleton:** This skeleton consists of the following bones.

(a) Skull	—	28
(b) Sternum	—	1
(c) Ribs	—	24
(d) Hyoidbone	—	1
(e) Vertebral column	—	26 for adult and 33 for children
2. **Appendicular Skeleton:** This skeleton consists of the following bones.

(a) Upperlimbs	—	64
(b) Lower limbs	—	62

4. CLASSIFICATION OF BONES

1. **Long Bones** (humerus, femur, ulna and radius bones)
2. **Short Bones** (carpal, metacarpals and phalanges etc)
3. **Irregular Bones** (Vertebra, some facial bones, ear bone)
4. **Sesamoid Bones** (present in knees, hand and foot etc. E.g. Patella (knee cap))
5. **Flat Bones** (skull bones and ribs etc)

5. JOINTS

Articulation or union of two or more bones of the skeleton.

TYPES OF JOINTS

- (i) **Immovable Joints or Synarthroses:** Bones of skull and face etc.
- (ii) **Slightly Moveable Joints or Amphiarthroses :** Intervertebral discs of the spine, distal joint between tibia and fibula.
 - (a) **Synchondrosis :** E.g. the joint between the growing bone and epiphyseal plate.
 - (b) **Symphysis:** E.g. the joint between pubic bones.
- (iii) **Freely Moveable Joints:** Shoulder joint, hip joint etc.
 - (a) **Gliding Joints:** Joints of wrist, (ulna and radius bones) and ankle joint.
 - (b) **Hinge Joints:** Knee joint, ankle joint etc.
 - (c) **Condylloid Joints:** wrist joint.
 - (d) **Saddle Joints :** Joints of knee, thumb.
 - (e) **Ball and Socket Joints:** shoulder joint and hip joints.
- (iv) **Pivot Joint:** pivot joint in your neck that allows your head to rotate and the pivot joints between the radius and ulna that rotate your forearm.

6. FUNCTIONS OF SKELETAL SYSTEM

- | | |
|----------------------------------|---------------------------|
| 1. Provide Support | 2. Help in movement |
| 3. Protection of Internal Organs | 4. Storehouse of minerals |
| 5. Helps in Locomotion | 6. Act as Levers |
| 7. Production of Red Blood Cells | 8. Endocrine Regulation |

7. MAJOR FUNCTIONAL CHRRRCTERISTICS OR PROPERTIES OF MUSCLES

- (i) **Contractility:** Capacity of muscle to contract or shorten forcefully.
- (ii) **Excitability:** Muscle responds to stimulation by nerves and hormones, making it possible for the nervous system and in some muscle types, the endocrine system, to regulate muscle activity.
- (iii) **Extensibility :** Muscles can be stretched to their normal resting length and beyond to a limited degree.
- (iv) **Elasticity:** If muscles are stretched, they recoil to their original resting length.

8. FUNCTIONS OF MUSCLES

- (i) **Smooth Muscles :** Made up of thin-elongated muscle cells, fibres. Smooth muscles are involuntary. Functions of Smooth Muscles :
 - (a) Executing functions of internal organs
 - (b) Regulation of blood pressure
- (ii) **Skeletal Muscles :** Most abundant tissue in the Vertebrate body. These are attached to and bring about the movement of the various bones of the skeleton, hence the name skeletal muscles. Functions of Skeletal Muscle Tissue:
 - (a) Produce movement
 - (b) Help in Breathing
 - (c) Protecting the vital organs
 - (d) Maintain body temperature
- (iii) **Cardiac (Heart) Muscles :** This is a unique tissue found only in the walls of the heart.

Functions of Cardiac (Heart) Muscle Tissue :

- (a) Contraction of Heart
- (b) Pumping Blood

9. STRUCTURE OF RESPIRATORY SYSTEM

Inhaling and exhaling of air i.e. the physical process by which living organism takes In oxygen from the surroundings and gives out carbon dioxide is known as respiration.

The group of body parts involved in the process of respiration is called respiratory system.

Following organs take part in the respiratory system:

- 1. Nose
- 2. Pharynx

- | | |
|------------|--------------|
| 3. Larynx | 4. Trachea |
| 5. Bronchi | 6. Diaphragm |
| 7. Lungs | |

10. FUNCTIONS OF RESPIRATORY SYSTEM

1. Filters the air.
2. Equalizes the air pressure between ears, nose and throat.
3. Avoids the food to enter in respiratory tract.
4. Wind pipe traps the particles of dust and micro organisms.
5. Gaseous exchange within the lungs.
6. Exchange of two gases i.e. oxygen and carbon dioxide.

11. STRUCTURE OF CIRCULATORY SYSTEM

The circulatory system is made up of blood vessels that carry blood away from and towards the heart. The circulatory system consists of:

1. The Heart
2. A system of tubes which include Arteries, Capillaries and Veins
3. Valves to ensure a one-way flow of blood

The human circulatory system has two separate circuits and blood passes through the heart twice. These circuits are:

- (i) **Pulmonary Circuit:** The pulmonary circuit is between the heart and lungs.
- (ii) **Systemic Circuit:** The systemic circuit is between the heart and the other organs.

The main organs of circulatory system are:

- (i) **Heart:** The heart is a muscular organ, which pumps blood through the blood vessels of the circulatory system.
- (ii) **Arteries:** The arteries are the blood vessels that deliver oxygen-rich blood from the heart to the tissues of the body.
- (iii) **Capillaries :** Capillaries are very tiny blood vessels which help to connect arteries and veins in addition to facilitating the exchange of certain elements between your blood and tissues.

(iv) **Veins:** Veins are blood vessels that carry blood towards the heart.

(v) **Valves:** Valves prevent the blood flowing backwards.

12. FUNCTIONS OF CIRCULATORY SYSTEM

1. Blood Circulation
2. Transport of nutrients
4. Regulation of body temperature
3. Transport of hormones
5. Boost the immunity

13. EQUILIBRIUM

A state of balance or a stable situation, where opposite forces cancel each other out and where no changes are occurring.

Types:

1. Static equilibrium, which is balance when the body is at rest (not moving).
2. Dynamic equilibrium, which is balance when the body is moving.

14. PRINCIPLES OF EQUILIBRIUM

1. Base of support
2. Centre of gravity
3. Line of gravity
4. Mass

OBJECTIVE TYPE QUESTIONS (1 MARKS EACH)

Q.1. Anatomy is the study of—

- (a) Application of the Principles
- (b) Study of movement
- (c) all systems of humanbody and their mutual relationship
- (d) structure, shape, sire and weight of all the organs of the body

Ans. (d) structure, shape, sire and weight of all the organs of the body

Q.2. It provides protection to vital organs of the body—

- (a) Respiratory system
- (b) Muscular system
- (c) Sketatal system
- (d) Cardiovascular system

Ans. (c) Sketatal system

Q.3. Sesamoid bones are found in—

- (a) Shoulders
- (b) Patella
- (c) Wrist
- (d) Thigh

Ans. (c) Wrist

Q.4. This joint facilitates turning and twisting movements—

- (a) Hinge joint
- (b) Pivot joint
- (c) Gliding joint
- (d) ball and socket joint

Ans. (b) Pivot joint

Q.5. Ball and Socket joint is setuated at—

- (a) shoulder
- (b) wrist
- (c) neck
- (d) knee

Ans. (a) shoulder

Q.6. Contractability is one of the properlies of the—

- (a) skelaton
- (b) muscle
- (c) Respiration
- (d) blood

Ans. (b) muscle

Q.7. Number of bones in an-adult human body are approximately—

- (a) 215
- (b) 210
- (c) 218
- (d) 206

Ans. (d) 206

Q.8. Alvioli are situated in the—

- (a) Bone marrow
- (b) heart
- (c) Lungs
- (d) voluntary muscles.

Ans. (c) Lungs

Q.9. It is the volume of blood pumped out by the heart in one beat—

- (a) stroke volume
- (b) tidal volume
- (c) cardiac output
- (d) oxygen dept

Ans. (a) stroke volume

Q.10. Stroke volume \times heart rate =

- (a) heart rate
- (b) second wind
- (c) tidal volume
- (d) cardiac output

Ans. (d) cardiac output

Q.11. Which is the main artery of circulation of pure blood to the body—

- (a) pulmonary
- (b) Aorta
- (c) trachea
- (d) sarcolemma

Ans. (b) Aorta

Q.12. Fast twitch fibres are of which colour—

- (a) white colour
- (b) red colour
- (c) blue colour
- (d) skin colour

Ans. (a) white colour

Q.13. Which is the function of heart from the following—

- (a) Systemic circulation
- (b) Pulmonary circulation
- (c) Regulation of heart beat
- (d) All of these

Ans. (d) All of these

Q.14. Which of the following is a symptom of second wind—

- (a) faster breathing
- (b) suffocation in the chest
- (c) none of the above
- (d) all the above

Ans. (d) all the above

Q.15. Which of the following is a function of respiratory system—

- (a) to regulate blood pressure
- (b) to produce sound
- (c) to produce RBC
- (d) to produce control and movement of the body

Ans. (b) to produce sound

Q.16. Static stability is important in—

- (a) shooting
- (b) football
- (c) volleyball
- (d) Judo

Ans. (a) shooting

Q.17. It is a point in body around which the weight is evenly distributed—

- (a) Dynamic equilibrium
- (b) Static equilibrium
- (c) Centre of gravity
- (d) Buoyancy

Ans. (c) Centre of gravity

Q.18. Which of the following will have greater stability—

- (a) spiking position in volleyball (b) standing start for 1500 m race
(c) stance of a golfer (d) tackling in football.

Ans. (c) stance of a golfer

SHORT ANSWER TYPE QUESTIONS (2 MARKS EACH)

Q.1. What is the importance of Anatomy, Physiology and Kinesiology in Physical Education?

Ans.

- These subjects provide the knowledge about various systems of human body.
- Provides the knowledge about the functioning of human body.
- Helpful to improve performance, techniques and teaching methods
- Helpful in prevention from sports injuries.

Q.2. Enlist the various systems of Human Body.

Ans.

(1) Circulatory system	(2) Respiratory system
(3) Muscular system	(4) Skeletal system
(5) Nervous system	(6) Digestive system
(7) Reproductive system	(8) Excretory system
(9) Immunity system	(10) Glandular system

Q.3. What are the functions of Bones?

Ans.

- To provide strength
- Act as store house of minerals
- Works as lever in human body
- Helpful in construction of RBC's (Red Blood Cells)
- Provide support to muscles
- Provide structure/frame to human body.

Q.4. What are properties of Muscles?

Ans.

- Contractility: Ability to contract
- Excitability: Ability to excite
- Elasticity: Capacity to stretch
- Extensibility: Capacity to stretch and maintain thrust

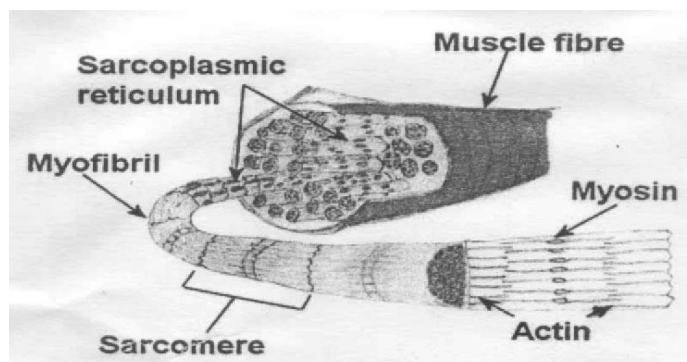
Q.5. What do you understand by cardiac output?

Ans. Cardiac output is the amount of blood pumped out by the heart per minute. It is the product of heart Rate (Number of Heart contraction/beat per minute) and stroke volume (Amount of blood pumped out during single contraction.)

SHORT ANSWER TYPE (60 WORDS - 3 MARKS)

Q.1. Explain structure of the muscle with the help of a diagram.

Ans. There are about 600 voluntary muscles in the body. Each muscle is made up of thousands of long and narrow muscle cells called muscle fibers. These muscle fibers are arranged in bundles and enclosed within a tough layer of connective tissue called epimysium (sarcolemma). Every muscle fiber is made up of very large number of microscopic threads called myofibril. Myofibril consists of protein molecules called actin and myosin.



Q.2. Explain external and internal respiration.

Ans. Inhalation and exhalation are the two processes of external respiration. This breathing process oxygenate to the blood. It gets purified as carbon dioxide is removed from the blood. External respiration takes place in the lungs. Internal respiration is the process of respiration that takes place in the tissues and cells. Blood full of oxygen reaches the tissue where oxygen is used up during energy production process and carbon dioxide is then taken by the blood to the lungs.

Q.3 Define the phenomenon of second wind. What are its causes and symptoms?

Ans. The breathlessness caused due to prolonged exercise is removed automatically by our body within short span of time of such exercise. This sense of relief is called 'second wind'.

Causes of second wind: When we perform strenuous exercise, our body takes some time to adjust according to the increased demand of energy. So, the second wind occurs before the adjustment.

Symptoms of second wind:

- (i) Faster breathing
- (ii) Signs of tension and worry on the face
- (iii) Headache
- (iv) Suffocation in the chest appears
- (v) Pain in muscles
- (vi). Condition of giddiness appears. These painful feelings disappear with the onset of second wind.

Q.4 What are the functions of respiratory system?

Ans. The main functions of respiratory system are given as under:

- (i) To exchange oxygen and carbon dioxide between the air and blood,
- (ii) To produce sound, it helps vocal chords to produce sound,
- (iii) To regulate blood PH level.
- (iv) To protect against some micro organism. Respiratory system blocks the entry of microorganism in the body at various levels, thus it provides protection against harmful microorganisms like virus, bacteria, etc.

Q.5. Explain the functions of heart.

Ans. The main functions of heart are given below.

- (i) It circulates the pure blood to all parts of the body. This is called systemic circulation.
- (ii) It carries the impure blood from all parts of the body to the lungs for purification. This is called pulmonary circulation.
- (iii) It regulates the blood pressure.
- (iv) It regulates the heart rate.
- (v) Regular exercise improves the efficiency of the heart.

Q.6 Write down the main functions of muscles

Ans. Function of muscles : Muscles are machine for converting chemical energy into mechanical work. The contractions and relaxations of muscles due to certain chemical changes in our body are:

1. To produce and control movements of the body
2. To maintain natural posture of the body acting on the bony structure

3. Helping in the economy of effort by working in association with long levers and pulleys.

Q.7 Write difference between slow twitch fibre and fast twitch fibre.

Ans. Slow twitch fibre are also known as red fibers which contract slowly. These play a significant role in aerobic activities as we may see in long distance and cross country races. Fast twitch fibers: These fibers are also known as white fibers. These fibers contract quickly and provide strength and speed but they fatigue more quickly. Those individuals who need intense burst of energy for shorter duration as in boxing, jumping events or throws need more percentage of fast twitch fibers.

Q.8. Explain dynamic equilibrium.

Ans. Dynamic stability is balancing the body during movement. It frequently happens that the line of gravity of an athlete will fall outside the base of support for movement.



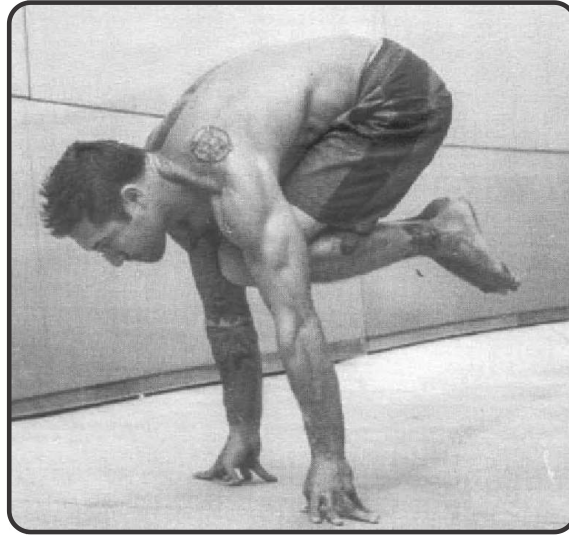
Dynamic equilibrium.

For example, in a sprint start, the body weight is ahead of the supporting foot but before the body can fall forward the other foot moves ahead to provide support and the process repeats itself. A man carrying a heavy bucket in his right hand leans towards his left hand side to maintain equilibrium. While climbing up a hill the climber bends forward so that he does not fall. The equilibrium is maintained by bringing the CG down.

Q.9 What is static equilibrium?

Ans. A body is said to be in stable equilibrium if it comes back to its original position when it is slightly displaced. Static stability is very important in shooting, archery

and hand stand in gymnastics, etc. Stable objects generally have wide bases and low CG. Bottom of the ship is made heavy to keep CG as low as possible. This makes the ship stable.



Static equilibrium

LONG ANSWERS QUESTIONS (150 WORD CARRYING 5 MARKS)

Q.1 What are the functions of blood?

Ans. Important functions of blood are given as under:

- (i) Transport of oxygen from the lungs to the tissues and carbon dioxide from the tissues to the lungs.
- (ii) It carries food material absorbed from the intestines to the tissue, cells for growth, energy and repair process.
- (iii) It carries the waste products of cellular activity and carries them to kidneys, lungs and intestines for excretion.
- (iv) It carries hormones, vitamin and other chemicals to the place of need.
- (v) It helps to maintain water balance in the body.
- (vi) It regulates the body temperature.
- (vii) White blood cells of the blood acts as a defensive mechanism

Q.2 What are the functions of skeletal system?

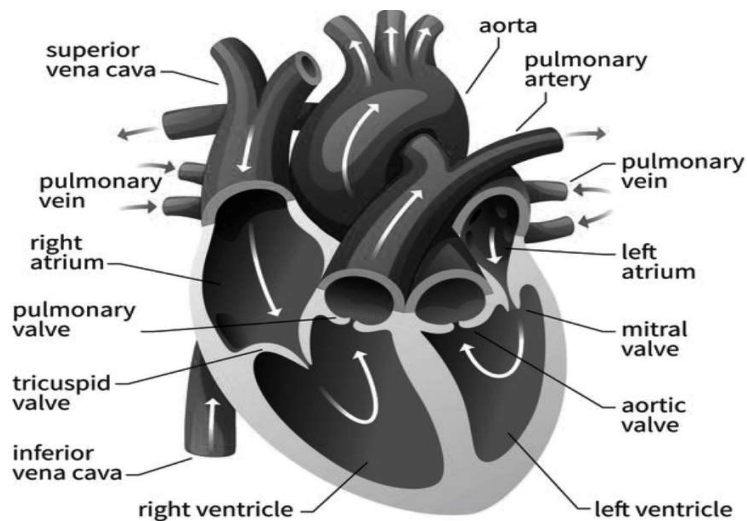
Ans. Main functions of skeletal system are given below.

- (i) **Shape and structure** : The boney framework gives human being its shape and structure like tall or small, thin or stout
- (ii) **Support** : It gives support to the body. The bones provide support to our muscular system.
- (iii) **Protection** : Bones protect our vital organs. Example: skull protects brain, thoracic cage protects heart, lungs and pancreas.
- (iv) **Lever** : Bones act as a lever like a simple machine. For example while lifting a weight, movable joints like elbow joint acts like fulcrum and length of arm bone acts like crow bar to reduce effort and helps to lift weight-
- (v) **Storehouse** : The hollow space of bones acts like a storehouse of different minerals and salts like calcium, potassium, iron, etc.
- (vi) **Production of RBCs** : Red blood cells are produced in the bone marrow. It is the factory to produce RBCs.
- (vii) **Junction** : Bones provide junction or attachment to skeletal muscle that helps in visible movement.
- (viii) **Self-repair** : Whenever bones are damaged, they are capable of doing self repair.

Q.3 Explain the structure of heart with the help of diagram.

Ans. The human heart is a four chambered muscular organ shaped and sized roughly like a man's closed fist with two-thirds of the mass to the left of midline.

Internal View of the Heart



Chambers of the Heart

The internal cavity of the heart is divided into four chambers:

- * Right atrium
- * Right ventricle
- * Left atrium
- * Left ventricle

The right atrium are thin - walled chambers that receive blood from the veins. The two ventricles are thick- walled chambers that forcefully pump blood out of the heart.

The right atrium receives deoxygenated blood from systemic veins; the left atrium receives oxygenated blood from the pulmonary veins.

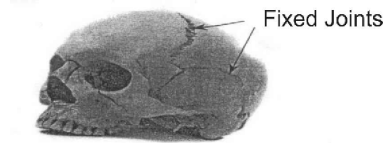
Valves of the Heart

Pumps need a set of valves to keep the fluid flowing in one direction and the heart is no exception. The heart has two types of valves that keep the blood flowing in the correct direction. The valves between the atria and ventricles are called atrioventricular valves (also called cuspid valves), while those at the bases of the large vessels leaving the ventricles are called semilunar valves. When the ventricles contract, atrioventricular valves close to prevent blood from flowing back into the atria. When the ventricles relax, semilunar valves close to prevent blood from flowing back into the ventricles.

Q.4 Explain different types of joints in human body.

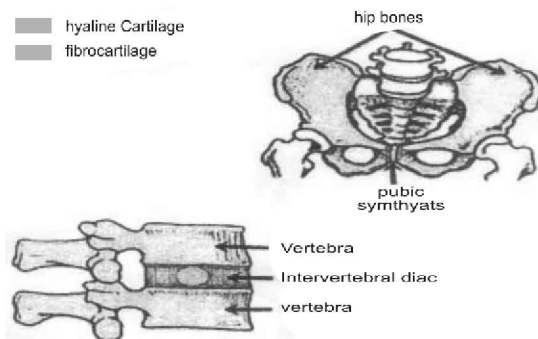
Ans. Following are the different types of joints,

- (i) **Immovable or fibrous joints:** They are fixed joints. They never move.
Example: joints of skull.



- (ii) **Slightly movable or cartilaginous joints:**

These joints provide very little movement. Example: backbone joints, pelvic joints.

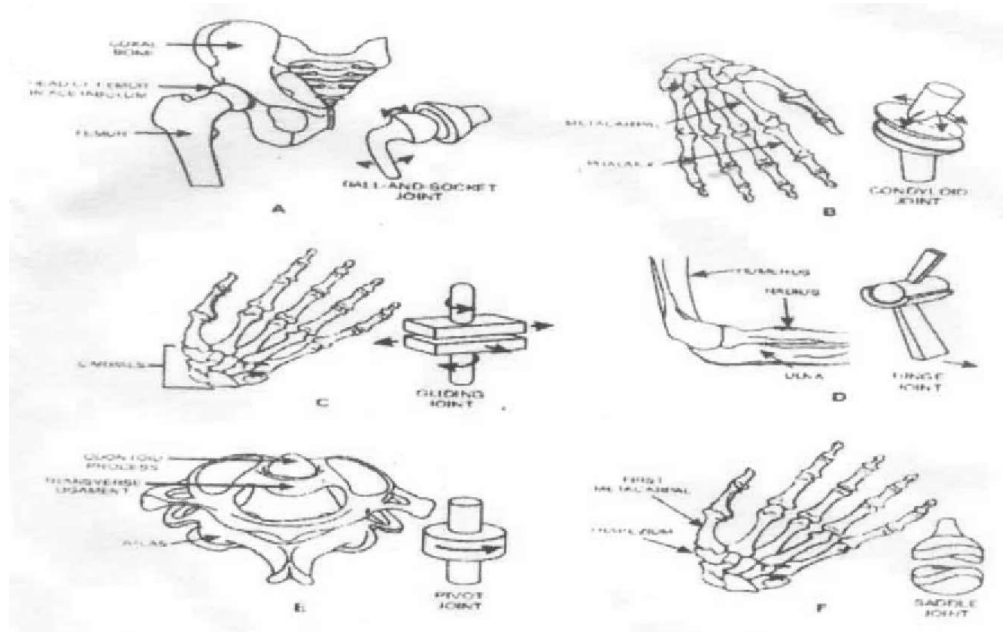


- (iii) **Freely movable or synovial joints.**

These joints provide different movements. There are five main types of movable joints,

- (a) **Hinge joint.** These joints allow a forward and backward movement.
Example; knee joints, elbow joints.
- (b) **Pivot joint.** These joints give a rotation movement. Such as the movement of neck.
- (c) **Ball and socket joint.** In these joints one bone has ball like shape and other has a socket like shape. They are fit together to make a free movable joint. Example shoulder joint and hip joint.
- (d) **Saddle joint.** It is a joint where one of the bones forming the joint is shaped like a saddle with the other bone resting on it like a rider on a horse. Example: wrist joint.

- (e) **Gliding joint.** It is a joint in which articulation of contiguous bones allows only gliding movements, as in the wrist and the ankle.

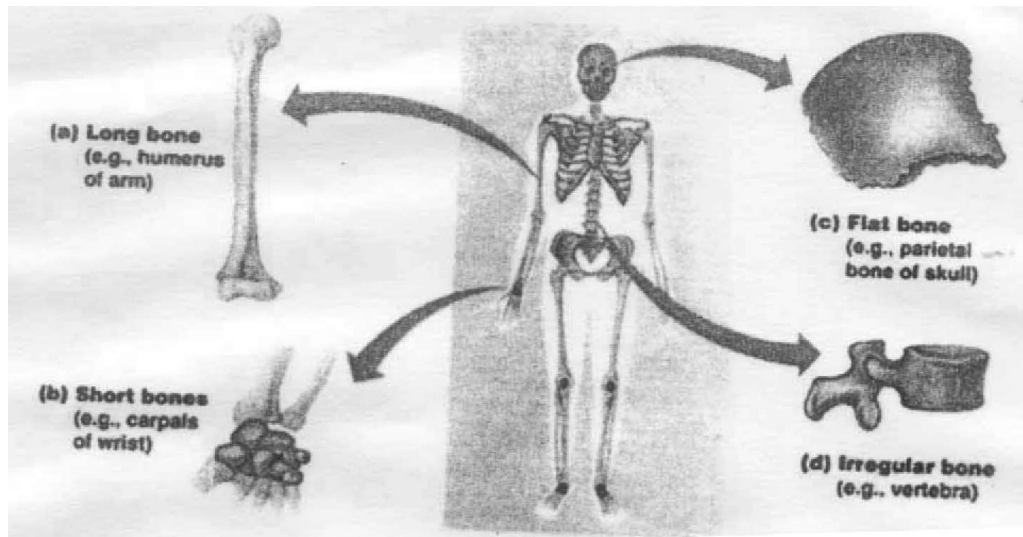


Q5. Write in detail about classification of bones.

Ans. Classification of Bones

1. **Long bones:** They are long and wide. They act as lever. They are found in legs and arms. Example: humerus, femur, tibia and fibula.
2. **Short bones:** They are short in size and cube shaped. They are found in wrist and phalanges. Example: metatarsal and carpal.
3. **Flat bones:** These bones are flat and thin. They are composed of a central layer of sponge bone fixed between two outer layers of compact bone. *Example:* ribs and shoulder.
4. **Sesamoid bones:** These bones are seed like shaped and developed in the tendons where there is more friction. Example: palms of hands, sole of feet and knee caps,
5. **Irregular bones:** These bones have in complete shaped as compared to other types. The bones of spinal column and skull are examples of these bones.

6. **Sutura bones:** They are situated in Sutura points in the skull.



Q.6 Elucidate the importance of anatomy and physiology in the field of sports.

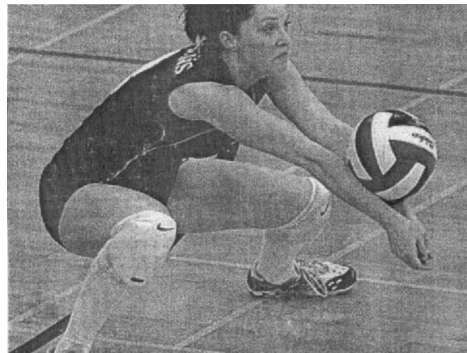
Ans. Study of anatomy and physiology plays very important role in the field of sports because of following reasons.

- (i) **Helps in physical fitness:** Strong and fit body is an inevitable asset in the field of sports. Study of anatomy and physiology helps a sport person to understand the structure and function of different parts of human body and to acquire a fit and healthy body.
- (ii) **Provides knowledge about body structure:** On the basis of knowledge of body structure, a sports person knows about the strength and weakness of his body and accordingly they can develop forte in the field of game which is suitable for the sports person as per their body structure.
- (iii) **Helps in selection of games:** On the basis of knowledge of body structure, the coach and player can choose an appropriate sport/ game which is suitable for a particular sport. Like tall students can be selected for basketball and volleyball. And short and stout students can be selected for weight lifting.
- (iv) **Protects from sports injuries:** On the basis of anatomy, sports equipments are designed that help in safe play.

- (v) **Helps in the process of rehabilitation:** Knowledge of ligaments, tendons and muscles helps in rehabilitation from the injuries sustained during the game or sport.
- (vi) **Helps in maintaining healthy body:** Study of anatomy and physiology provides detailed knowledge about all body parts, their nature and functions. This helps the player to adopt good, safe and healthy use of body.
- (vii) **Helps to know about individual differences:** There is a lot of difference between the body of male and female. The knowledge of anatomy and physiology helps in understanding these individual differences. On the basis of these differences, the size of the court, time of game and equipment are designed differently for male and female players.

Q.7. Explain in detail the principle of stability and its uses in sports.

- Ans.** (i) Broad base of support : for greater stability increase the area of the base and lower the centre of gravity as much as is consistent with the activity involved. Examples:
- (a) a basketball player stops, spreads his feet wide as shoulder line and lowers his CG to dodge the opponent.



- (b) Defense position of the player in volleyball.
- (c) Wide stance of a golfer.
- (d) Tackling position of a player in football.
- (ii) Stability is directly proportional to the weight of the body the object or a person with heavy weight will have greater stability as compared to person

with less weight. Example: it is difficult to move a heavier person as compared to less heavier person. On the basis of this principle, wrestling, boxing, judo, etc. are organized according to different age groups.



- (iii) **Direction of an acting force:** To start quickly in one direction, keep the CG as high as possible and as near as possible to the edge of the base nearest to the direction of intended motion.

Example: The crouched position in starting a race, the CG is kept high by not bending the knees extremely and by keeping the hips high, also the lean of the body is towards the hands so that the weight rests on the hands. From this position, the movement hands are raised from the ground; motion starts by reason of the pull gravity. This pull is added to the force exerted against the starting block by the feet and thus aids in speed.



- (iv) When the body is free in the air, if the head and feet move down, the hips move up and vice versa.

Example:

- a. This principle is applied in the high jump in western or valley roll technique at the take off, the head and one foot is thrust up as high as possible. As the head and one leg clear the bar, they are dropped which raises the hips to clear the bar. As the hips are lowered, the opposite leg is raised to clear the bar.
- b. This is also used in pole vault, hurdles and jackknife, dive in swimming.



Unit - 9

Psychology and Sports

Main Point :-

- ✍ 9.1 Definition and Importance of Psychology in Physical Education & Sports.
- ✍ 9.2 Define and differentiate between Growth and Development
- ✍ 9.3 Development Characteristics at different stages of Development
- ✍ 9.4 Adolescent Problems and their Management

9.1 (a) Psychology is defined as the science of behaviour.

According to Plato, “Psychology is the science of soul.”

According to E. Watson, “Psychology is a positive science of behaviour.”

According to Crow and Crow, “Psychology is the science of human behaviour and its relationship”.

9.1 (b) Sport Psychology: Sports Psychology is an applied Psychology involving applications of Psychological principles to the field of Physical education and sports.

9.1. (c) Importance of sports psychology

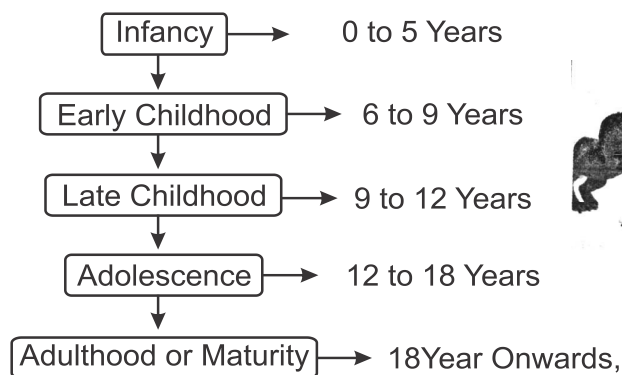


9.2. Growth and Development: The term ‘growth’ means the progress in size, height and weight of the body.

Development can be defined as progressive series of changes in an orderly coherent pattern.

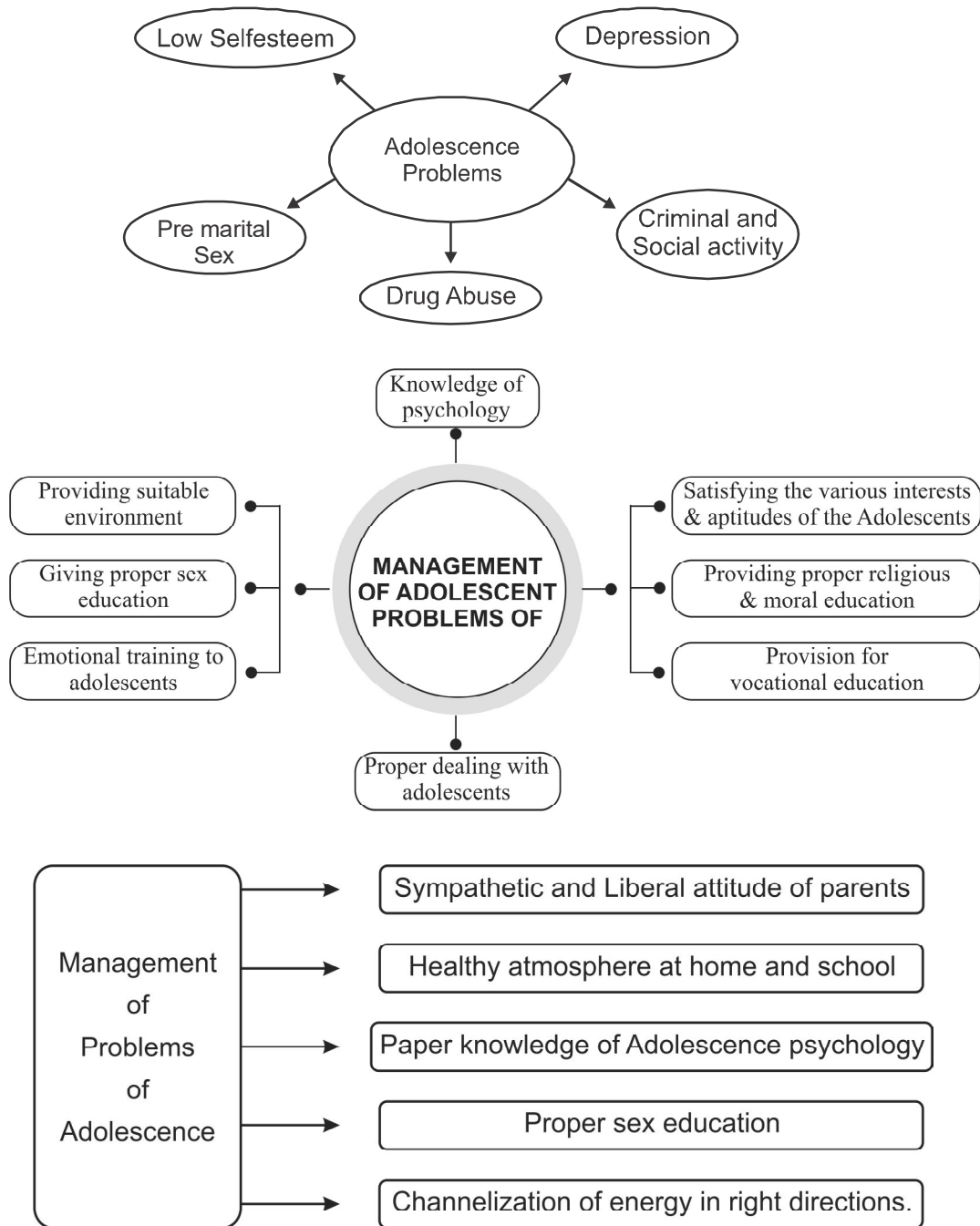
9.3. Different stages of growth and development

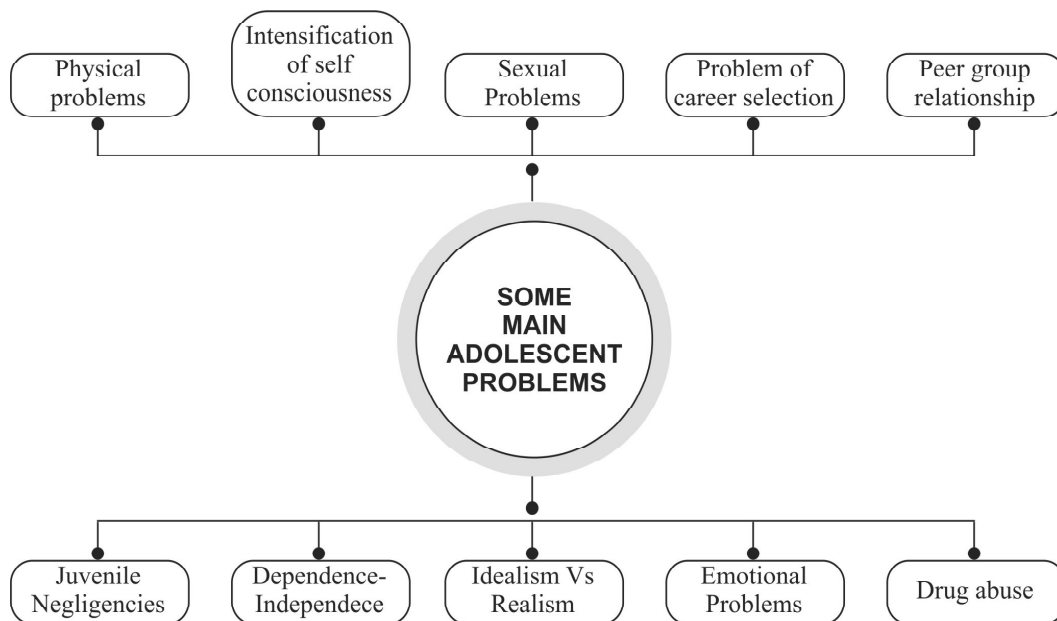
5 stages of growth and development :



9.4. Adolescence, Problems of Adolescence and Management of Problems of Adolescents

Adolescence : Adolescence is the period of change from childhood to adulthood





OBJECTIVE TYPE QUESTIONS (1 MARKS EACH)

Q.1. What is the meaning of ‘Psyche’?

- | | |
|------------------|---------------|
| (a) Soul | (b) Behaviour |
| (c) Environement | (d) Science |

Ans. (a) Soul

Q.2. What is not come under growth?

- | | |
|------------------------|-------------------------|
| (a) Increase in Height | (b) Increase in Weight |
| (c) Increase in size | (d) Increase in obestiy |

Ans. (d) Increase in obestiy

Q.3. What is the meaning of development.

- (a) Change in structure of body and organ
- (b) Change in size
- (c) Change in maturity
- (d) All of the above

Ans. (d) All of the above

Q.4. 'Adolescent' is a period between —

- (a) 12 to 18 years
- (b) 13 to 18 years
- (c) 9 to 18 years
- (d) 10 to 18 years

Ans. (b) 13 to 18 years

Q.5. In the childhood, Individual's behaviour is most influenced by—

- (a) Community
- (b) School
- (c) Peer group
- (d) family

Ans. (d) family

Q.6. The causes of frustration among sports person is—

- (a) Result of own performance
- (b) Normally due to mismatched level of aspiration and ability
- (c) Result of good performance
- (d) Natural outcome of competitive sports

Ans. (b) Normally due to mismatched level of aspiration and ability

Q.7. Match the following:

List-I

- (I) Late Childhood
- (II) Adulthood
- (III) Infancy
- (IV) Early childhood

List-II

- 1. 0 to 5 years
- 2. 6 to 9 years
- 3. 9 to 12 years
- 4. 18 years onward

- | | I | II | III | IV |
|-----|---|----|-----|----|
| (a) | 3 | 4 | 1 | 2 |
| (b) | 1 | 2 | 3 | 4 |
| (c) | 4 | 3 | 1 | 2 |
| (d) | 3 | 1 | 4 | 2 |

Ans. (a) 3 4 1 2

Q.8. Adulthood is the age of

- (a) 18 years
- (b) After 18 year
- (c) Before 18 years
- (d) None of the above

Ans. (a) 18 years

Q.9. Puberty begins at

- (a) Childhood
- (b) Adolescence
- (c) Adulthood
- (d) None of the Above

Ans. (b) Adolescence

Q.10. Which process is continue from birth to till death of human?

- (a) Growth
- (b) Development
- (c) Both (a) and (b)
- (d) None of the Above

Ans. (b) Development

Q.11. Growth can be

- (a) Measured
- (b) Can not be Measured
- (c) Both of these
- (d) None of these

Ans. (a) Measured

Q.12. Growth is related to the process of development in height, weight and

- (a) Body
- (b) Size
- (c) Brain
- (d) Skin

Ans. (b) Size

Q.13. Given below are two statements, one labelled as Assertion (A) and the oilier labelled as Reason (R).

Assertion (A) : An Infant can run and walk In better way than holding a pen or pencil to write.

Reason (R) : An Infant first gains control over large muscle groups than the fine ones.

Which of the following statements is correct?

- (a) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (b) Both (A) and (R) are true but (R) is not the correct explanation of (A).
- (c) (A) is true and (R) is false.
- (d) (A) Is false and (R) is true.

Ans. (a) Both (A) and (R) are true and (R) is the correct explanation of (A).

Q.14. Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R).

Assertion (A): Children of different ages as well as children of same age show differences in their respective mental age.

Reason (R): The child's level of education is determined according to his mental age.

In the context of the above two statements, which of the following statements is correct?

- (a) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (b) Both (A) and (R) are true but (R) is not the correct explanation of (A).
- (c) (A) is true and (R) is false.
- (d) (A) is false and (R) is true.

Ans. (a) Both (A) and (R) are true and (R) is the correct explanation of (A).

SHORT ANSWERS QUESTION FOR 2 MARKS

Q.1 Identify the given below and write the names of stages of human development:

(i)



(ii)



(iii)



(iv)



Ans. (i) Infancy (ii) Late Adulthood (iii) Childhood (iv) Adulthood

SHORT ANSWERS QUESTION FOR 3 MARKS (60 WORDS)

Q.1 Mention the importance of Sports Psychology.

- Ans. • Improve performances :-** The Knowledge of sports psychology helps to improve performance and personality of players by scientific ways of modifying behavior.
- **Motivation and feedback :-** Proper motivation and proper feedback enhances the performance of players. It gives counselling to players. This can be guided by sports psychology.
 - **Better selection :-** The knowledge of sports psychology guides the coaches for better selection of players.

Q.2 Describe any two developmental characteristics of adolescence.

Ans. Physical characteristics

- (i) Gain in height, weight and ossification of bones is almost complete.
- (ii) Endurance is developed to a great extent.
- (iii) Co-ordination of muscles reaches its peak.

Mental characteristics

People of this age begin to think and feel differentially. Hormonal changes reflect in behaviour and mood. Teenagers become short tempered, moody and irritable. They also become very self conscious and extra sensitive.

Q.3 Highlight the differences between growth and development

Growth	Development
1. Growth is quantitative.	1. Development is quantitative as well as qualitative.
2. Growth comprises of height, weight, size and shape of body organs like brain etc.	2. In this with the physical changes cognitive, social and emotional change are also included.
3. It is due to cell division.	3. It happen due to motor and adjust mental process and their interplay.
4. It is for limited period.	4. It takes place till death.
5. It can be measured.	5. It can be observed by matured behaviour.
6. Growth is not affected by past or new learning. Growth tells about one aspect of personality but is limited scope.	6. Development is affected by past and new learning and experience.

Q.4. Describe the developmental characteristics during early childhood.

Ans. Physical characteristics:

- It is a period of slow but steady growth in height. Bones are soft.
- Weight increase is steady
- Pulse rate is higher than adults
- The heart size is smaller in comparison to the body
- Strength is not well developed

LONG ANSWER TYPE QUESTION

(150 WORDS) 5 MARKS

Q.1 Explain any four problems of adolescents

Ans. (1) Aggressive and Violent Behaviour : Adolescent has aggressive behaviour and often becomes violent very fast. They easily become, irritated and repulsive when work is not of their interest.

(2) Problems related to physiological growth : The physiological changes associated with adolescence present conditions and problems that the adolescence has not met upto this time and in many cases is ill prepared to meet them when they appear.

(3) Confusion between adolescent's role and status : Unfortunately neither the adolescent's role nor his status is clear cut in the society. A boy may be treated like a man in many situations outside but like a child in his own home.

(4) Problems related with the future : The adolescence is a period when the individual is not a child, he has emerged from the safe and protected life of childhood. He has now to decide to what course of life he has to follow.

Q.2 Discuss methods adopted for management of adolescent problems in details:

Ans. Management of Adolescent problems

- 1. Sympathetic and liberal attitude of parents :** A sympathetic and liberal attitude of parents and their cooperative nature can help in

solving many problems of adolescents, Parents should take note of the change take place during growth and development of children and adjust their own behaviour towards the adolescents. Liberal and sympathetic attitude of parents develops self confidence.

2. **Healthy atmosphere at home and school :** Unhealthy atmosphere at home or in school or carelessness towards children can force children to fall in bad company. In orders to save children from bad habits and company, it is important to provide sufficient means for the satisfaction of their interests at home or school. Activities like music, arts or sports can help in keeping the children busy and indulge in healthy recreation.
3. **Moral and Religious Education :** Religious and moral education can help adolescents to get some peace of mind and direction in their lives. Moral education should be a part of school education while home is the best institution for religious education.
4. **Friendly attitude :** At this stage, adolescent want to accept the friendly attitudes. So parents and teachers should act more as friends rather strict, disciplined and rigid parents. More over this friendly attitude will bring them more close instead of making gaps between them.
5. **Reasonable Independence :** They should be given reasonable amount of independence. They should be given the freedom to express themselves and their point of views should be discussed in reasonable manner. They should also be given freedom to go out reasonably keeping their safety in mind.

MIND MAPPING

PSYCHOLOGY: The science of behaviour.

SPORTS PSYCHOLOGY: “Sports psychology is the study of the application of psychological principles to sports and physical activity at all levels of skill improvement”.

1. IMPORTANCE OF SPORTS PSYCHOLOGY

- (i) Improvement in Self-confidence
- (ii) Dealing with crowd during competition
- (iii) Counselling of Sports persons
- (iv) Improvement in Concentration
- (v) Controlling the Emotions
- (vi) Improvement in Coaching Skills
- (vii) Reducing Stress
- (viii) Better Understanding and Coordination
- (ix) Enhancing Psychological
- (x) Better Training Methods Capacities

2. MEANING OF GROWTH AND DEVELOPMENT

Growth: The term Growth is used for increasing in size, weight and height etc. or becoming larger and heavier.

Development: Development is a progressive change that takes place orderly, predictable pattern as a result of experience and maturity.

3. DEVELOPMENT CHARACTERISTICS AT DIFFERENT STAGES OF DEVELOPMENT

A. Infancy period (0-5 years)

1. **Physical Development:** Rapid Growth in size and weight.

2. **Intellectual Development:** Child, in his infancy Is interested only in those things which fulfil his immediate needs of hunger and feeding. When 2-3 years, he learns to speak very small sentences. At age of five, he starts thinking and takes keen interest in playing.
3. **Emotional Development:** Emotions are not clear at the time of birth. Child cries when he feels hungry. At age two, he displays different emotions such as anger, joy, love and fear. From the age of 2 to 5 years, child becomes highly emotional.
4. **Social Development:** Fully dependent on parents up to 2 years for his physiological and psychological needs, but at age three, he starts liking to play in group. Signs of co-operative behaviour appears at age of four years. At the age of five, friendship becomes strong and tendency of fighting is reduced.

B. Early Childhood (6-9 years)

1. **Physical Characteristics:** Period of slow but steady growth in height. Bones are soft. Weight increase is steady. Pulse rate is higher than adults. The heart size is smaller in comparison to the body. Strength is not well developed.
2. **Mental Characteristics:** Child loves to take part in exercises and activities. Imitations is a strong characteristic. Children love to play with kids of their own age. The play i activities in the age group should not be strenuous because physical capacities develop slowly.
3. **Emotionai Development:** Children tend to become demanding and bossy. They are often enthusiastic about life and tend to be outgoing. They may start questioning parents authority. They might show jealousy toward siblings. They are able to understand their own feelings and understand the consequences of their actions. They show empathy and offer to help when they see another in distress.
4. **Social Development:** Friends and special friendships become more important at this time, and it's very important to his self-esteem that he feel as though he fits in and is accepted by his friends.

C. Late childhood period (9-12 years)

- 1. Physical Development:** Period of slow, steady and uniform growth.
- 2. Intellectual Development:** New experiences are acquired and applied and mental horizon is broadened.
- 3. Emotional Development:** Emotional behaviour becomes stable and remains under control.
- 4. Social Development:** Child plays team games and likes to form bigger social circle.

D. Adolescence period (12-18 years)

- 1. Physical Changes:** Physical characteristics of boys and girls begin to mature.
- 2. Intellectual Changes:** Mental horizon widens and one starts observing things minutely and capacity to discuss increases.
- 3. Emotional Changes:** Difficult to control emotions.
- 4. Social relationships:** More interest in the world around him.

E. Adulthood period (more than 18 years)

- 1. Physical Development:** Muscles become mature and their strength improves.
- 2. Intellectual Development:** Brain reaches its full maturity.
- 3. Emotional Development:** Emotions are very much controlled.
- 4. Social Development:** Become functioning members of the society.

4. ADOLESCENT PROBLEMS

“Adolescence is a period through which a growing person makes a transition from childhood to maturity”.

Some main adolescent problems are :-

- (i) Physical problems
- (ii) Intensification of self consciousness

- (iii) Sexual Problems
- (iv) Peergroup relationship
- (v) Problem of career selection
- (vi) Dependence-Independence
- (vii) Idealism Vs Realism
- (viii) Drug abuse
- (ix) Emotional Problems
- (x) Juvenile Negligencies

5. MANAGEMENT OF ADOLESCENT PROBLEMS

- (i) Knowledge of psychology
- (ii) Providing suitable environment
- (iii) Giving proper sex education
- (iv) Proper dealing with adolescents
- (v) Satisfying the various interests and aptitudes of Adolescents
- (vi) Providing proper religious and moral education
- (vii) Provision for vocational education
- (viii) Emotional training to adolescents

Unit - 10

Training and Doping in Sports

Main Point :-

- ✍ 10.1 Meaning and Concept of Sports Training.
- ✍ 10.2 Principles of Sports Training.
- ✍ 10.3 Warming-up and Limbering down.
- ✍ 10.4 Skill, Technique and Style.
- ✍ 10.5 Concept and Classification of Doping.
- ✍ 10.6 Prohibited Substances and their side effects.
- ✍ 10.7 Dealing with alcohol and substance abuse.

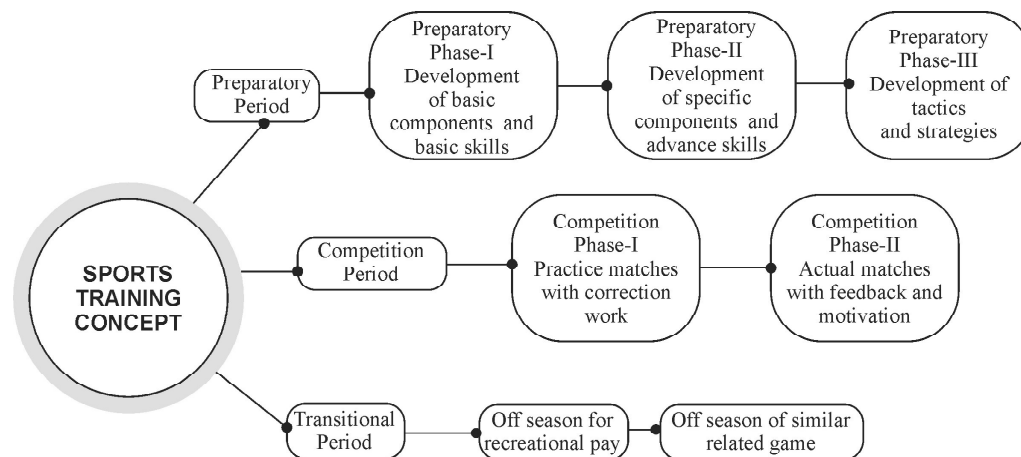
10.1 MEANING OF SPORTS TRAINING

The word “training” means to give practical and theoretical knowledge, but in physical education this word has a very deep meaning. Training methods are long term processes based on scientific and systematic ways to enhance sports performance. In simple words, we can say that these are the methods to improve general and specific performance in games and sports. It gives us knowledge regarding performance and it also guides us how to improve further through different ways. Its knowledge is good for coaches as well as important for a player.

The Training is a process of preparing an individual for any event or an activity. Sports Training is the physical, technical, intellectual, psychological and moral preparation of an athlete or a player by means of physical exercise. Sports training also consists of all those learning, influence and process that are aimed at enhancing Sports performance.

According to Mathew, “Sports training is the basic form of preparation of a sportsman”.

According to Martin, “It is a planned and controlled process of achieving goals in which the changes of motor performance and behaviour are made through measures of content methods and organization.”



10.2 PRINCIPLES OF SPORTS TRAINING

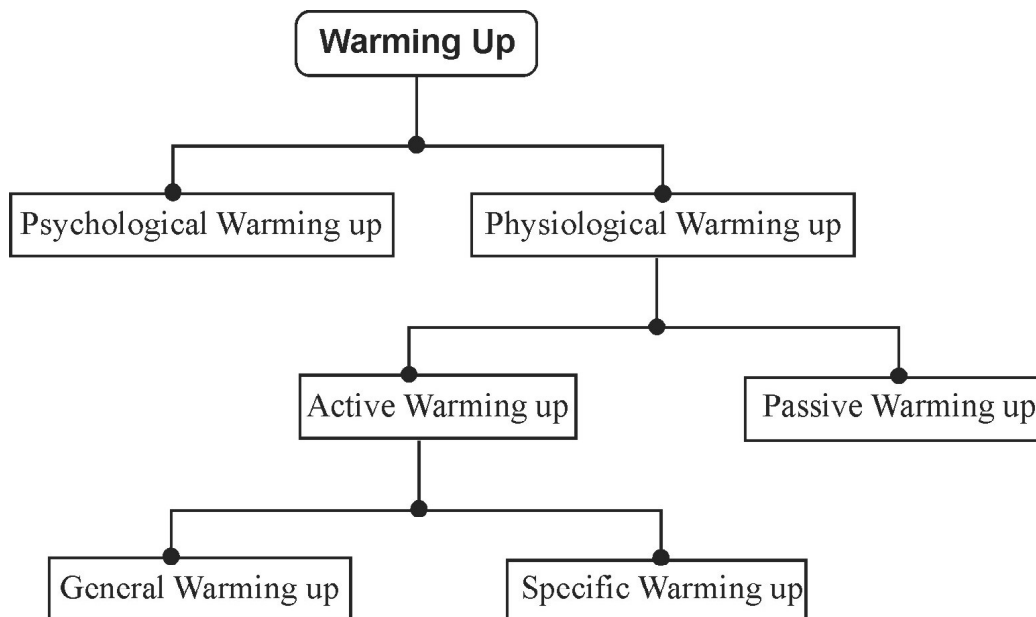
The principles of sports training are as following :

1. Principles of continuity

2. Principle of over load
3. Principle of Individual Differences
4. Principle of general and specific preparation
5. Principle of progression
6. Principle of specificity
7. Principle of variety
8. Principle of warming up and cool down
9. Principle of rest and recovery.

10.3 WARMING UP: It is a short term activity carried out prior to any severe or skilled activities. Warming up is an essential before a competition. Through such a workout we try to bring the group of muscles expected to take part in the activity to follow. It is primarily preparatory activity in which physiological and Psychological preparation of an athlete is done for the main activity.

Types of Warm up: (i) General Warm-up
(ii) Specific warm-up



Limbering down or cooling down :

At the end of the training session or competition, athletes are normally advised to cool down. This is done normally in the shape of a light but continuous activity such as jogging or walking for some time at the end of the event. Such an activity after the competition of an event is called limbering down or cooling down.

10.4 SKILL, TECHNIQUE AND STYLE

Skill can be defined as “A learned ability of an athlete to bring the required result with maximum certainty and efficiency.” In other words we can say that it is the capacity of a sportsperson to learn technique in actual motor action. Skill is an automatic motor action performed by an athlete or player.

Technique :- Technique is the basic movement of any sports or event. We can say that a technique as the way of performing skill. Technique is always based on scientific lines specially in physical activities or games and sports. Technique is defined as the single motor procedure for taking a motor skill or activity.

Style :- It is the manner of doing something that is characteristics of a particular person or pattern. It may or may not be based on sound principles. A style of doing a movement, if perfect, looks graceful and appealing. It is an individual's expression of technique in motor action, therefore each sports person due to his specific physical and biological capacities realize the technique in different way. symptoms of over load and how to over come it.



10.5 MEANING OF DOPING:

- (a) When an athlete uses banned substances or methods to improve performance in sports it is called as doping.

Example: Drugs and steroid used.

- (b) **Concept of Doping:** “Doping” is the word, which is used in the field of sports, when athletes use prohibited substances or methods to unfairly improve their sporting performance. In general way, doping is the use of performance enhancing substance or methods by sports person to gain an advantage over their competitors. In fact, some sports person take illegal substance to enhance their performance. The activity is known as doping. The use of banned performance enhancing drugs in sports is commonly referred to as doping. The use of drugs is considered unethical by most International sports organisations. The anti doping authorities state that using performance enhancing drugs goes against the “spirit of sports”.

Prohibited Substances Methods

Prohibited Substance

- Stimulants
- Anabolic Agents/Steroids
- Beta-2-Agonists

Methods

- Blood Doping
- Gene Doping

10.6 DEALING WITH ALCOHOL AND SUBSTANCE ABUSE

Intoxicants are the substance, used for the purpose of intoxication by the individuals. Those, who use Intoxicants, lose their balance of mind or become unconscious. The individual who uses, intoxicants becomes habitual very easily. Nicotine, Alcohol, Heroin, LSD, Cocaine, Cannabinoids and morphine's etc are the main examples of intoxicants. The person, who takes these Intoxicants every day, not only loses his physical, mental and also loses memory, themselves and family but also burden on the nation, because they cannot give their contribution in the development of their nation.

1. **Alcohol :-** In the modern era there is highly increasing trends of alcohol. Some doctors said that if small quantity of alcohol is consumed It help in digestion, but it Is consumed in large quantity It has bad effects on our health. It also stimulates the nervous system. It takes large quantity; it makes the consumer semi-conscious or even unconscious. Effects of alcohol: These are no doubt that alcohol has many bad effects not only on the individuals but on his/her family and society also. Its effects can be studied under two sub-heads :-

- I. Effects on individual
- II. Effects on family and Society

I. Effects on Individual: These are certain bad effects of alcohol on individual.

- (a) **Effects on Nervous system:** Brain and nerves of the individual become weak Neuro-muscular co-ordination decreases, concentration power declines. Reaction time of such individual increases.
- (b) **Effects on digestive system:** It has bad effects on the organs of digestive system Membranes of digestive organs becomes fatty. The digestive juices, which help in digestion, are produced in less quantity.
- (c) **Effects of Muscular system:** The extension and contraction capacity of the muscles become less. These muscles are not able to exert maximum force.
- (d) **Effects on excretory system:** Alcohol also effects the organs of the excretory system. These organs lose their efficiency and consequently waste products like acid phosphate, lactic acid etc, are deposited in the body. These waste product not removed from the body. Failure of kidneys in common in such people. Liver is usually damaged by alcohol.

II. Effects on family and Society : Family of an alcoholic is always disturbed. If he economic condition of the family is not good even than the individual arranges the money for alcohol by hook or by crook. They are unable to maintain the standard of their families. The family life becomes hell. These alcoholic people cannot contribute anything to their country or society. Such peoples are burden on society.

2. **Drug Addiction :-** It is realised by all that drug abuse in our country is increasing day by day. It is resulting in suicidal deaths from over dosage. Private suffering, divorce, reduced working efficiency and loss to the society. These are a number of drugs which if taken persistently for a prolonged period. An individual can become addicted to these drugs. This habit is termed as “Drug Addiction”. Alcohol, Nicotine, LSD, Heroin, Cocaine and are endangering the youth of our country.

Sportsmen also take drugs such as steroids, amphetamines, beta-blockers, Diuretics and erythropoietin. They take such drugs for one or the other reason. Some take these drugs for body building, for reducing weight and for muscle growth. Others take such drug for fast movement endurance, removal of pain and fatigue.

The civil effects of drugs could be a stride earlier topic of doping.

10.8 METHODS TO DEAL WITH SUBSTANCE ABUSE & ALCOHOL

Alcohol and substance abuse are treatable conditions that can be overcome with the help of treatment specialists. The following methods can be applied to deal with alcohol and substance abuse -

1. **Ask for help :** You can take help from your parents, teachers, counselor, or doctor - you can get rid of the problem if you seek proper help.
2. **Detoxification :** It helps the affected person to stop taking the harmful substances as quickly as possible. Detoxification may involve gradually reducing the dose of the drug.
3. **Behavioral therapy :** The therapist can help in coping with your drug cravings. He can suggest strategies to avoid alcohol and drugs. Behaviour therapy helps the individuals to manage their thought pattern essentially controlling negative thought patterns that leads to alcohol and substance abuse.
4. **Motivational enhancement therapy :** In this process, a therapist helps a patient to tap into their personal motivations to resist drug use.
5. Inform your friends about your decision to stop using drugs or alcohol, so that they also help you to get rid of this bad habit.

6. Remain away from your friends who sell indulge is substance abuse.
7. Involve yourself in different hopes distract yourself from indulgent in substance abuse.
8. Talk to your family and good friend you in distracting you.
9. **Medication** : Medicine also help with counseling gives better results.

OBJECTIVE TYPE QUESTIONS (MARKS EACH)

Q.1. Alcohol stimulate the _____ .

- | | |
|---------------------|----------------------|
| (a) Muscular system | (b) Digestive system |
| (c) Nervous system | (d) Excretory system |

Ans. (c) Nervous system

Q.2. Woman who take _____ tend to masculinize?

- | | |
|-------------------|------------------|
| (a) Beta-blockers | (b) Amphetamines |
| (c) Diuretics | (d) Steroids |

Ans. (d) Steroids

Q.3. Which of the physical method of doping is _____ .

- | | |
|-----------------|-----------------------|
| (a) Stimulants | (b) Steroids |
| (c) Gene doping | (d) None of the above |

Ans. (c) Gene doping

Q.4. Which substance help in increasing oxygen in the body _____.

- | | |
|-----------------------|-----------------------|
| (a) Blood doping | (b) Gene doping |
| (c) Homologous doping | (d) Autologous doping |

Ans. (d) Autologous doping

Q.5. Which substance is help in increasing strength of the musles in the human body.

- | | |
|-----------------------|-----------------------|
| (a) Homologous doping | (b) Autologous doping |
| (c) Blood doping | (d) Gene doping |

Ans. (a) Homologous doping

Q.6. Which of the one is the performance enhancing substance _____

- (a) Blood doping
- (b) Gene doping
- (c) Narcotics
- (d) Auto Logous doping

Ans. (c) Narcotics

Q.7. What is the full form of 'NADA'

- (a) National Auto doping Agency
- (b) Natural Anti doping Academy
- (c) National Anti drugs Agency
- (d) National Anti doping Agency

Ans. (d) National Anti doping Agency

Q.8. Which principle formed on training according to specific requirements of particular sports?

- (a) Principle fo programm
- (b) Principle of continuity
- (c) Principle of specificity
- (d) Principle of Individual Diffence

Ans. (c) Principle of specificity

Q.9. What effect does warming up have on body temperature?

- (a) Decrease the body temperature
- (b) Increase the body temperature
- (c) No change
- (d) First decrease then increases

Ans. (b) Increase the body temperature

Q.10. The use of any method or substance that might harm the athlete, in a quest to gain an unfair advantage, over his/her fellow competitors is known as:

- (a) Adaptation
- (b) Discrimination
- (c) Doping
- (d) Comprehension

Ans. (c) Doping

Q.11. Given below are the two statements labeled Assertion (A) and Reason (R).

A. Assertion (A): An athlete must properly and adequately warm-up before the event to avoid Injury.

B. Reason (R): There is all likelihood of a chess player getting injured during a high level of competition.

Select the answer from the codes given below:

Codes:

- (a) Both (A) and (R) are true and (A) is the correct explanation of (R)
- (b) Both (A) and (R) are true and (A) is not correct explanation of (R)
- (c) (A) is true but (R) is false
- (d) (A) is false but (R) is true

Ans. (b) Both (A) and (R) are true and (A) is not correct explanation of (R)

Q.12. Assertion: General exercises have greater value for the young developing athletes.

Reason: These exercises do not relate closely to the sports technique movement and are good for warming-up and conditioning.

Select the answer from the codes given below:

Code:

- (a) Both (A) and (R) are true and (A) is the correct explanation of (R)
- (b) Both (A) and (R) are true and (A) is not the correct explanation of (R)
- (c) (A) is true but (R) is false
- (d) (A) is false but (R) is true

Ans. (d) (A) is false but (R) is true

SHORT ANSWERS QUESTION FOR 3 MARKS (60 WORDS)

Q.1. Explain the beneficial effects of warm up?

Ans. Benefits of Warm up

- Increased movement of blood through tissues, making the muscles more pliable.
- Increased delivery of oxygen and nutrients to the muscles. Prepares the heart for increase in activity, thus preventing a rapid Increase in blood pressure
- Prepare you mentally for upcoming exercise.
- Improves co-ordination and reaction time.

Q.2 What is meant by limbering down? Explain the beneficial effects of limbering down.

Ans. Limbering down means lowering down the intensity of the work by performing the stretching exercise followed by deep breathing, relaxation exercise is called cooling down.

Beneficial effects of limbering down.

When we do exercise there is a lot of blood flow in our muscle if we stop suddenly there may be pooling of blood in the extremities and cause giddiness and some time collapse. Limbering down exercise prevent the post exercise soreness and stiffness.

Q.3 What are the Physiological reasons in support of warming up?

Ans. Warming up does produce physiological changes in the looking of a muscle and that warming up serves as basis or foundation for the efficient warming of muscle.

Warming up possibly helps in the following ways to increase muscular efficiency:

1. There is a local rise in temperature and accumulation of metabolic products. It helps in the efficiency of contraction and relaxation of muscles.
2. Warming up brings the muscles in a state of readiness to responds to stimuli efficiently.
3. The development of the neuron muscular co-ordination between the group of muscles required to be involved in an activity also demands some initial warming up.

Q.4 Write down the guiding principles of warming up in brief.

Ans. In the warming up there are certain guiding principles of warming-up as in the following ways :

- (a) Simple to complex
- (b) Exercise for all parts of the body.
- (c) Stretching and loosening exercise should be included.
- (d) Intensive enough to increase body temperature.
- (e) Warming-up should be according to the activity or sports
- (f) Concerned Movement of games should be included.

- g) Warming-up should be done at exact time.
- (h) Warming-up should be according to age and sex.

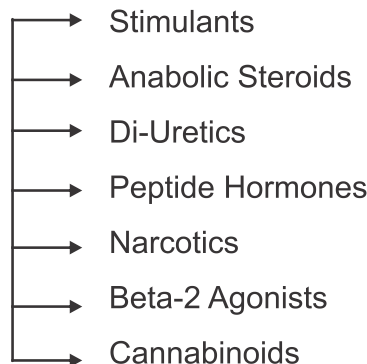
Q.5 Explain the principles of sports training ?

Ans. To perform physical activities and sports if we want to remain healthy and fit for longer duration, there are certain principles we have to follow. They are as under :

- (a) **The principles of use :** The Principle of use indicates that if we use any part of the body then that part will remain healthy for longer duration. It is essential to perform one or the other physical activity. Regular exercise also improves muscular strength, will power, increased metabolic changes that are responsible for increased efficiency of the total body, improves the system due to regular input and out put of healthy impulse.
- (b) **Principle of Disuse:** Principle of disuse means absence of physical activity. It may be due to any fracture, illness, old age or any personal reason. If we stop using of our body, our growth and development of muscles, brain, system etc. will also either stop or the growth will be very slow.
- (c) **Principle of over load :** Principle of overload means using the body beyond its capacity. It is necessary for an athlete to use his body maximum to get a better result but on the other hand over use of the body is also very harmful for the body.

Q.6 Make a list of performance enhancing substances and describe any two?

Ans.



1. **Stimulants :** The athlete uses cocaine, amphetamines, ephedrine etc. as a tablet, injection or spray to improve his level and performance on sports. It reduces the reaction time and the rate of fatigue of the athlete.
2. **Anabolic steroids :** The athlete uses these substances to improve the strength and growing of the muscles. These are taken orally or by injection to enhance their performance in sports.

Q.7 Explain the blood doping

Ans. It is the process of increasing the red blood cells by blood transfusion. Blood doping increases hemoglobin level due to which higher amount of oxygen (O₂) is supplied to the athletes muscles, which further leads to strengthening and growing of muscles blood doping improves stamina and performance, especially it is done by long distance running. Cyclist and boxers etc.

Q.8 How does Beta-Blockers affect the sports performance.

Ans. Affects of Beta- Blockers in sports performance are as follows.

1. Reduction in Blood pressure and heart rate
2. Reduce shaking of hands.
3. It reduce level of anxiety
4. It improves concentration

LONG QUESTION (150 WORDS) 5 MARKS

Q.1 Write down the method of warming up in detail

Ans. The following are the methods of warming-up which are generally used :

1. General Method

- (a) **Jogging :** Every athlete should perform jogging or slow running for 5 to 10 minutes to increase the body temperature.
- (b) **Simple exercise :** This is also a way of warming up. The exercise should be performed from simple to complex.
- (c) **Striding :** It means running the distance with long strides. The distance of running should not be more than 50 meters.
- (d) **Stretching exercise :** Stretching is one of the most critical part which is stronger and healthier.

2. **Warm-up with water :** Warm-up with luke warm water gives relaxation to the muscles, which is usually followed in developed countries. Before a competition, a hot bath helps to raise the body temperature and thus activate muscles by increasing blood circulation in muscles.
3. **Warm-up Through Massage :** The massage of muscles helps the muscles to tone up and is, therefore considered as a means of warming up.
4. **Through Sun Bath :** The body can be warmed up through sun bath up to some extent, but in most of the sports this method of warming-up is not usually applied.
5. **Through steam both :** The body can be warmed up through steam bath. Energy can be saved through steam bath but this method of warming-up is also not used frequently.

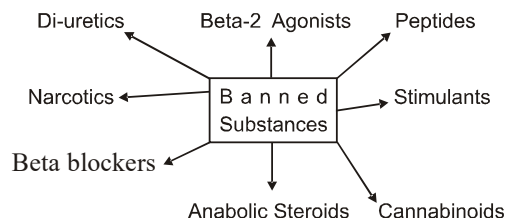
Q.2 Explain in detail the classification of skills.

Ans. There are a number of sports activities and each activity requires a set of skills. Owing to many characteristics of skill , it is difficult to classify. Generally there are the following skills:

- (a) **Open skill :** The Skill which are not under control and are unpredictable are classified open skill.
- (b) **Closed skill :** Closed skill take place in a stable, predictable environment
- (c) **Simple skill :** The skill which do not require large amount of co-ordination, timings and decision. These skills are straightforward, easy to learn and not difficult to perform, e.g. chest pass, under arm service.
- (d) **Complex Skill :** The skills which requires large amount of co-ordination, timing and quick thought process are called complex skills e.g. over head kick in football.
- (e) **Continues skills :** These skills have no obvious beginning and of one of one cycle of movement and beginning of next. e.g. cycling is an example of continues skills.
- (f) **Fine skills :** These skills include complex precise movements using small muscle groups e.g. snooker shot.
- (g) **Individual skills:** Individual skills are thore skills which are performed in isolation, e.g. high jump and long jump.

Q.3 Explain in detail the side effects of the use of banned or prohibited substance in sports.

Ans. The athletes use different types of banned substances to



i) Stimulants -

1. Cause insomnia, anxiety and aggressiveness
2. Poor Judgement
3. Increases hypertension and body temperature

ii) Anabolic steroid

1. Can cause Sudden heart attack
2. High blood pressure
3. Mood swings, aggression/depression
4. Can cause impotency and baldness in males
5. Can cause facial hair growth and deep voice in females

iii) Cannabinoids :

1. Reduce concentration and co-ordination
2. Reduce lung capacity
3. May cause heart disease and lung cancer
4. Loss of memory

iv) Beta Blockers :

1. Reduces endurance
2. Headache and weak digestion.
3. Risk of heart attack due to slow heart rate.

v) Narcotics :

1. Loss of balance and coordination
2. May cause drowsiness, vomiting, constipation
3. May cause fainting and coma

vi) Diuretics :

1. Can cause dehydration
2. May lead to kidney damage
3. Mineral imbalance and low blood pressure and drowsiness

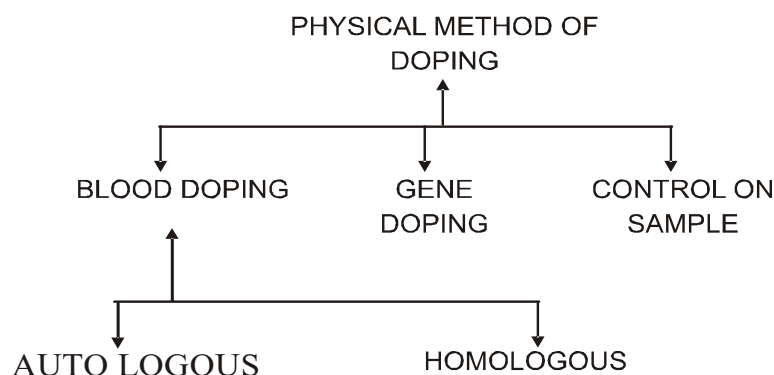
vii) Beta-2 Agonists

1. Cold hands, drowsiness
2. Headache, vomiting etc.
3. May cause insomnia and depression.

Q.4 What are the side effects of prohibited substances?

1. Increased heart rate and Blood pressure
2. Sexual dysfunction
3. Features like male in females
4. Physical and mental weakness
5. Complications like stroke, cardiac problems and even death
6. Breast enlargement in males
7. Premature baldness
8. Enlargement of the prostate gland
9. Irregularity in menstruation
10. Problem of depression & aggression

Q.5 What are the physical methods of doping? Define methods prohibited in sports.



1. **Blood Doping:** Blood doping is a method to increase the count of red blood cells, which is done by the use of wrong banned substances. There are two methods under this.
 - (a) **Autologous blood doping :** Two units of bloods are taken some weeks prior to competition. Then the blood is frozen until one or two days before competition when it is injected into the athlete. This is called autologous blood doping.
 - (b) **Homologous blood doping :** The injection of fresh blood, taken from a second person, straight into the athlete is called homologous blood doping. This improves the oxygen carrying capacity to the muscles by increasing the count of red blood cells (RBC) so the muscle endurance is increased which improves the aerobic capacity and sports performance.
2. **Gene Doping :** Gene doping is the manipulation of cells or genes to enhance the body's sports performance. It can be used to improve the work function of normal healthy cells. Gene therapy plays an important role in growth and development of muscles and bones. It also speeds up the person to repair of the injured muscle tendons and ligaments.
3. **Chemical and Physical Manipulation:** Any tampering with the samples during doping control during or after any competition is prohibited.

Model Paper (Solve)
Physical Education (048)
Class-XI

Time : 3 Hrs.

Max. Marks : 70

General Instructions

- (i) The Question paper contains of 30 Questions in all questions are compulsory.
 - (ii) Question 1-12 carry 01 marks each and are multiple choice questions.
 - (iii) Question 13-16 carry 02 marks each and their answer should not exceed approximately 40-60 words.
 - (iv) Questions 17-26 carry 03 marks each and their answer should not exceed approximately 80-100 words.
 - (v) Questions 27-30 carry 05 marks each and their answer should not exceed approximately 150-200 words.
-

(SECTION-A)

Q.1 Which is the short term activity carried out after the severe activity?

- (a) Technique
- (b) Warming-up
- (c) Limbering down
- (d) None of the above

Ans. (c) Limbering down

OR

Which of the physical method of doping is—

- (a) Stimulants
- (b) Steroids
- (c) Gene doping
- (d) None of the above

Ans. (c) Gene doping

Q.2 Which is the longest bone in human body?

- (a) Stapes
- (b) Femur
- (c) Carpal
- (d) Humerus

Ans. (b) Femur

Q.3 A _____ may be defined as tool, a question or an examination which is used to measure a particular characteristic of an individual or a group of individuals.

- (a) Measurement
- (b) Test
- (c) Evaluation
- (d) Assessment

Ans. (b) Test

OR

For which of the following are tests, measurements, and evaluation in the field of sports and physical education important?

- (a) Motivation
- (b) Goal setting
- (c) Research
- (d) All of the above

Ans. (d) All of the above

Q.4 In the childhood, Individual's behaviour is most influenced by—

- (a) Community
- (b) School
- (c) Peer group
- (d) family

Ans. (d) family

Q.5 "Let me win, But if I can not win. Let me be brave in the attempt." In which game this oath is taken?

- (a) Special olympics Bharat
- (b) Paralympics
- (c) Deaflympics
- (d) Asian Games

Ans. (a) Special olympics Bharat

Q.6 What is the aim of physical Education?

- (a) Physical development
- (b) Mental development
- (c) Social development
- (d) All round development

Ans. (d) All round development

Q.7 What is the range of healthy body mass index?

- (a) 20–25
- (b) 25–30
- (c) 18.5–24.9
- (d) 30.0–34.9

Ans. (c) 18.5–24.9

OR

Which one of the following body type like slim shape?

- (a) Endomorph
- (b) Mesomorph
- (c) Ectomorph
- (d) None of the above

Ans. (c) Ectomorph

Q.8 Which agency ensures that no athlete violates anti-doping rules?

- (a) World Anti-doping Agency (WADA)
- (b) International Olympic Committee (IOC)
- (c) Indian Anti-doping Agency (IADA)
- (d) All of the above

Ans. (a) World Anti-doping Agency (WADA)

Q.9 In the following, which is not the component of health related fitness?

- (a) Flexibility
- (b) Speed
- (c) Muscular endurance
- (d) Muscular strength

Ans. (b) Speed

Q.10 The ability to overcome resistance is called?

- (a) Muscular strength
- (b) Muscular endurance
- (c) Flexibility
- (d) Body composition

Ans. (a) Muscular strength

Q.11 Given below are two statements labelled (A) and Reason (R).

Assertion (A) : Physical education is recognised as an indispensable portion of the school curriculum.

Reason (R) : It helps students attain physical, emotional, mental and social powers and build-up their self-esteem.

In the context of the two statements given above, which one of the following is correct.

- (a) Both (A) and (R) are true and (R) is the correct explanation of (A)
- (b) Both (A) and (R) are true but (R) is not the correct explanation of (A)
- (c) (A) is true and (R) is false.
- (d) (A) is false and (R) is true.

Ans. (a) Both (A) and (R) are true and (R) is the correct explanation of (A)

Q.12 Match List-I with List-II and select the correct answer from the code given below:

List-I Name

List-II Meaning

- | | |
|-----------------|--|
| (i) Pranayama | 1. Control of the sense |
| (ii) Dhyana | 2. Union with the divine |
| (iii) Samadhi | 3. Breathing exercises |
| (iv) Pratyahara | 4. Devotion, meditation on the divine will |

Select the correct set of options:

Code

- | | (i) | (ii) | (iii) | (iv) |
|-----|-----|------|-------|------|
| (a) | 3 | 2 | 1 | 4 |
| (b) | 4 | 4 | 2 | 3 |

(c) 3 4 2 1

(d) 1 3 4 1

Ans: (c) 3 4 2 1

(SECTION-B)

Q.13 Identify the following adventure sports and write its name:



(a) _____



(b) _____



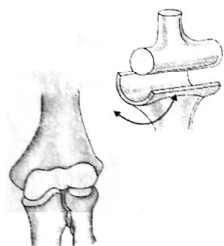
(c) _____



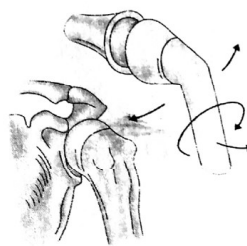
(d) _____

Ans. (i) Paragliding
(ii) Surfing
(iii) River Rafting
(iv) Mountaineering

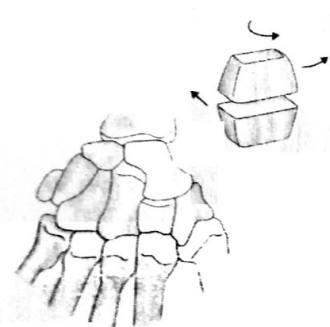
Q.14 Identify the types of synovial joints and write their names:



(a) _____



(b) _____



(c) _____



(d) _____

Ans: (a) Hinge joint

(c) Gliding joint

(b) Ball and socket joint

(d) Saddle joint

Q.15 Write any two benefits of 'NAUKASANA'?

- Ans.** (i) It reduces fat around the waist and abdomen.
(ii) It gives relief in gastric problems.

Q.16 Write any two achievements of special olympics Bharat?

- Ans.** (i) Special Olympics Bharat has organised many competitions on national level in various disciplines such as, National Badminton championship, National Volleyball and Basketball championship, National games, National Floor Hockey championship and National football and table tennis championship.
(ii) First regional asia pacific games were held in 2012 which saw participation of 400 special olympic Bharat athletes who brought home 387 Medals (111 Gold, 136 silver and 140 Bronze).

OR

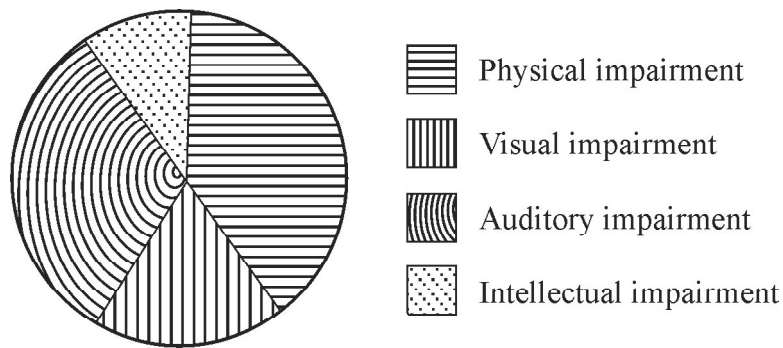
Write two objectives of Adaptive Physical education?

- Ans.** (i) To provide physical education services.
(ii) To develop self-esteem.
(iii) To develop motor skills.
(iv) To increase sportsmanship

(SECTION-C)

Q.17 Given below is the data which depicts the number of participants with disability under different categories in paralympic games 2020

Paralympic Games 2020



On the basis of the pie-chart given above, answer the following questions:

(A) Under which category does the maximum number of participants falls?

- (i) Physical impairment (ii) Vishual impairment
(iii) Auditory impairment (iv) Intellectual impairment

Ans. (i) Physical impairment

(B) Under which category does the minimum number of participants falls?

- (i) Physical impairment (ii) Vishual impairment
(iii) Auditory impairment (iv) Intellectual impairment

Ans. (iv) Intellectual impairment

(C) Which of the following categories is related to defect in hearing?

- (i) Physical impairment
- (ii) Visual impairment
- (iii) Auditory impairment
- (iv) Intellectual impairment

Ans. (iii) Auditory impairment

Q.18 A volleyball player did not warm-up before the game. As a result he got shoulder dislocation in Arm on the basis of the case given, answer the following questions:

(A) Which of the following warming-up techniques should the volleyball player have adopted before playing the game?

- (i) Jumping
- (ii) Lunge walk
- (iii) Dribbling
- (iv) Alternate Toe touch

Ans. (iv) Alternate Toe touch

(B) What type of warming-up session should the player have indulged?

- (i) General warming-up
- (ii) Specific warming-up
- (iii) Passive warming-up
- (iv) Both (i) and (ii)

Ans. (iv) Both (i) and (ii)

(C) How can be shoulder dislocation be treated?

- (i) By applying Anti-biotic cream
- (ii) Proper stretching and taking a warm bath
- (iii) Applying ice back
- (iv) Immobilization completely

Ans. (iv) Immobilization completely

Q.19 Write a short note on the Olympic Flag.

Ans. The Olympic Flag, made of white silk, represents the Olympic symbol, consisting of Olympic rings, which represents the unity of the five inhabited continents: North and South America, Europe, Australia, Asia and Africa. The color interlocked rings of blue, yellow, black, green, red colour symbolize the union of five continents.

Or

Briefly describe about the Olympic Oath.

Ans. The Olympic Oath is an important ceremony during opening of the games. A representative athlete of the host country, holds a corner of the Olympic Flag while reciting the oath:

In the name of all the competitors I promise that we shall take part in these Olympic Games, respecting and abiding by the rules which govern them, committing ourselves to a sport without doping and without drugs, in the true spirit of sportsmanship, for the glory of sport and the honour of our teams.

Q.20 Calculate the BMI of a person whose weight is 80 Kg and his height is 1.60 M. Also state the category in which he falls?

Ans. Weight = 80 kg
Height = 1.60 m

$$\begin{aligned}\text{BMI} &= \frac{\text{Weight (in kg)}}{\text{Height} \times \text{Height (in m)}} \\ &= \frac{80}{1.60 \times 1.60} \\ &= \frac{80 \times 10000}{160 \times 160} = \frac{8000}{16 \times 16} \\ &= \frac{8000}{256} = 31.25 \text{ kg / m}^2\end{aligned}$$

Q.21 Write any three qualities of a good Leader?

Ans. (i) **Motivators**—Team players respect a sports leader who is a hard worker and maintains enthusiasm for team goals, as well as for individual player success. One of the most important qualities you need as a coach is passion—for the sport itself and toward individuals on the team.

A successful sports leader keeps team members motivated and optimistic eventually realizes positive outcomes, such as team cohesion, performance and satisfaction.

(ii) **Effective communicator in sports**—A team filled with the best players in the league who communicates poorly will, flounder in mediocrity, while a team filled with run of-the mill players who communicates flowlessly will be contenders every year. Effective communication in sports is an absolute essential trait that quality teams must have to be successful, from the coaches, to team leaders, all the way down to the role players.

(iii) **Visionaries**—Sports leaders inspire other because they maintain a positive attitude, high morale and persistent drive toward goals, Johnson says. Effective leaders, including coaches and team leaders, are highly focused

on a vision for their team and drive other toward outcome and results for trekking that vision.

OR

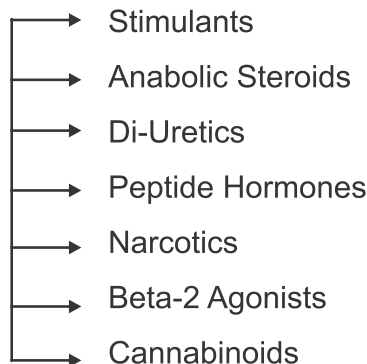
Explain any three objectives of Adventure sports

Ans. The three objective of adventure sports are explained below:

- (i) **Developing coopration and Team Work:** While participation in Adventure sports, which involve group activities, one learns to co-operate and work as a team.
- (ii) **Understanding Nature:** Most of the adventure sports are out-door activities which give enough opportunities to experience nature which develops bonding with nature.
- (iii) **Knowledge about the forest resources:** Adventure sports help us to understand and given knowledge about different forest resources and their use.

Q.22 Make a list of performance enhancing substances and describe any two?

Ans.



- 1. **Stimulants :** The athlete uses cocaine, amphetamines, Modafinil etc. as a tablet, injection or spray to improve his level and performance on sports. It reduces the reaction time and the rate of fatigue of the athlete.
- 2. **Anabolic steroids :** The athlete uses these substances to improve the strength and growing of the muscles. These are taken orally or by injection to enhance their performance in sports.

Q.23 What are the functions of respiratory system? (Any three)

Ans. The main functions of respiratory system are given as under:

- (i) To exchange oxygen and carbon dioxide between the air and blood,

- (ii) To produce sound, it helps vocal chords to produce sound,
- (iii) To regulate blood PH level.
- (iv) To protect against some micro organism. Respiratory system blocks the entry of microorganism in the body at various levels, thus it provides protection against harmful microorganisms like virus, bacteria, etc.

Q.24 What steps should be taken to implement inclusion education?

Ans. The following steps should be taken for implementation of adapted physical education are as given below:

- (i) To improve school environment
- (ii) To change in Admission policy
- (iii) To use of modern technology in school education
- (iv) To appoint the special education teacher
- (v) To provide basic educational facilities
- (vi) To implement the policy right to education

Q.25 Write a short note on career in sports industry?

Ans. Careers are also available in sports industry. A person who wants a career in sports industry, must have the knowledge of physical education and sports. One may establish a sports industry at a small scale. It may be related to only T-shirts and Track suits. It may be related to only sports footwear. The knowledge of research and designing is also vital for such jobs, because new types of sports equipments and new types of tracksuits or swimsuits which are beneficial for increasing the performance of sportspersons are always in demand.

Q.26 Discuss the importance of sports psychology?

- Ans.**
- (i) Improvement in self confidence
 - (ii) Controlling the emotions
 - (iii) Reducing stress
 - (iv) Enhancing psychological capacities
 - (v) Help in understanding behaviour
 - (vi) Help to learn motor skills
 - (vii) Help to improve performance (explain any two)

OR

Differentiate between growth and development.

Ans.

Growth	Development
1. Growth is quantitative.	1. Development is quantitative as well as qualitative.
2. Growth comprises of height, weight, size and shape of body organs like brain etc.	2. In this with the physical changes cognitive social and emotional change are also included.
3. It is due to cell division.	3. It happens due to motor and adjustment mental processes and their interplay.
4. It is for limited period.	4. It takes place till death.
5. It can be measured.	5. It can be observed by matured behaviour.

(SECTION-D)

Q.27 Discuss methods adopted for management of adolescent problems in details:

Ans. Management of Adolescent problems

- 1. Sympathetic and liberal attitude of parents :** A sympathetic and liberal attitude of parents and their cooperative nature can help in solving many problems of adolescents. Parents should take note of the changes that take place during growth and development of children and adjust their own behaviour towards the adolescents. Liberal and sympathetic attitude of parents develops self confidence.
- 2. Healthy atmosphere at home and school :** Unhealthy atmosphere at home or in school or carelessness towards children can force children to fall in bad company. In order to save children from bad habits and company, it is important to provide sufficient means for the satisfaction of their interests at home or school. Activities like music, arts or sports can help in keeping the children busy and indulge in healthy recreation.
- 3. Moral and Religious Education :** Religious and moral education can help adolescents to get some peace of mind and direction in their lives. Moral education should be a part of school education while home is the best institution for religious education.

4. **Friendly attitude :** At this stage, adolescent want to accept the friendly attitudes. So parents and teachers should act more as friends rather strict, disciplined and rigid parents. More over this friendly attitude will bring them more close instead of making gaps between them.
5. **Reasonable Independence :** They should be given reasonable amount of independence. They should be given the freedom to express themselves and their point of views should be discussed in reasonable manner. They should also be given freedom to go out reasonably keeping their safety in mind.

Q.28 What is the difference between Endomorph and Mesomorph types of personalities?

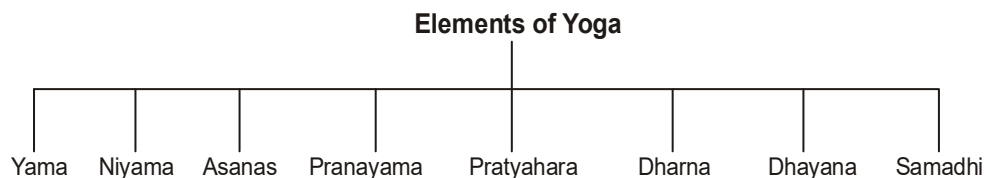
Ans.

Endomorph	Mesomorph
(i) An individuals have short arms and legs.	(i) An individuals have balanced body composition.
(ii) An individuals have rounded physique.	(ii) An individuals have athletic physique.
(iii) Under developed muscles	(iii) Strong muscles.
(iv) High fat storage	(iv) Fat evenly stored all over the body.
(v) Pear shaped body	(v) Rectangular shaped body.
(vi) Less ability to compete in sports.	(vi) Can excel in sports.
(vii) They are less active.	(vii) They are capable of doing lot of activities.

OR

Enlist the elements of Yoga and explain 'Yama in detail'

Ans. There are 8 elements of Yoga. They are given below:



There are eight elements of yoga. yama is the first limb of ashtang yoga yama is also sometimes called "the five restraints" because it describes what one should avoid to advance on the spiritual path.

There are five types of yama. They are as follows:

- (i) **Ahimsa** – Non-violence or harmlessness. To perfect ahimsa one must not with harm on any creature.
- (ii) **Asatya** – Non-lying or truthfulness. This does not mean to be tactless, but to always tell the highest truth.
- (iii) **Asteya** – Non-covetousness. Not wishing for more than one has, or for what another has.
- (iv) **Brahmacharya** – Sexual self-restraint. Celibacy means flowing with Brahma.
- (v) **Aprigraha** – Non-possessiveness. Letting go of all attachment to one's possession, including one's body, and being willing to relinquish them all at a moment's notice.

Q.29 How can health threat be prevented through lifestyle change? Discuss in detail:

- Ans.**
- 1. **Regular Physical Exercise:** It helps in preventing obesity, high blood pressure, heart diseases, stroke, diabetes, some types of cancer, constipation, depression and other health threats.
 - 2. **Healthy eating habits:** Healthy eating habits can help the individuals in preventing as well as controlling the disease such as high blood pressure, heart disease, diabetes, osteoporosis, muscular degenerating renal stones, dental diseases and including certain type of cancer.
 - 3. **Limit T.V. Watching:** Watching T.V. for a number of hours regularly is associated with increased various research studies.
 - 4. **Quit Smoking:** Quitting smoking is significant for a healthy lifestyle. In fact smoking, use of tobacco in any form increases the blood pressure which may cause stroke and coronary artery disease.
 - 5. **Sufficient sleep:** Sufficient sleep is also very significant part of a healthy lifestyle.
 - 6. **Prevention of injury:** Prevention of various types of injuries owing to fatal accidents plays a vital role in maintaining a healthy lifestyle.

7. **Limit the amount of alcohol:** To use alcohol in limited amount is also an important part of healthy lifestyle.

OR

Discuss the role of special educator for the children of special Needs. (CWSN)?

Ans. Role of Special Educator for CWSN.

1. Assess student's skills to determine their needs and to develop teaching plans.
2. Adapt lessons to meet the needs of students.
3. Develop Individualised education programs (IEPs) for students.
4. Plan, organise, & assign activities that are specific to each student's ability.
5. Implement IEPs, assess students.
6. Update IEPs throughout the school year to reflect student's progress and goals.

Q.30 Enlist the different career options in the field of physical Education?

Ans. There are different career options in the field of physical education:

1. Teaching related career
 - (a) Elementary school level
 - (b) Middle school level
 - (c) High school and senior secondary school level.
 - (d) University and college level
2. Coaching related career
 - (a) Administration related career.
 - (b) Physical education department
 - (c) Sports department
 - (d) Industrial recreation
 - (e) Sports facilities.
3. Health related career
 - (a) Health club
 - (b) Athletic training
4. Performance related career
 - (a) As a player
 - (b) As an official
5. Career in communication and media
 - (a) Sports journalism
 - (b) Book Publication
 - (c) Sports photography
 - (d) Sports Broad Casting

UNSOLVED QUESTION PAPER
Subject: Physical Education (048)
Class-XI

Time : 3 Hrs.

Max. Marks : 70

General Instructions

- (i) The Question paper contains of 30 Questions in all questions are compulsory.
 - (ii) Question 1-12 carry 01 marks each and are multiple choice questions.
 - (iii) Question 13-16 carry 02 marks each and their answer should not exceed approximately 40-60 words.
 - (iv) Questions 17-26 carry 03 marks each and their answer should not exceed approximately 80-100 words.
 - (v) Questions 27-30 carry 05 marks each and their answer should not exceed approximately 150-200 words.
-

(SECTION-A)

Q.1 The blood vessels which carry O₂ blood throughout the body.

- | | | |
|------------------------|-------------|-----------------|
| (a) Arteries | (b) Veins | |
| (c) Pulmonary arteries | (d) Auricle | Ans. (a) |

OR

The position of heart lie in the chest

- | | | |
|------------|-------------|-----------------|
| (a) Left | (b) Veins | |
| (c) Centre | (d) Auricle | Ans. (c) |

Q.2 To enhance the performance load must be:

- | | |
|---------------------|-------------------|
| (a) Optimal/optimum | (b) Right |
| (c) Under | (d) None of above |

Q.3 The ability to maintain maximal speed for maximal distance and maximal duration is called

- | | |
|--------------------------|------------------------|
| (a) Reaction ability | (b) Movement ability |
| (c) Acceleration ability | (d) Locomotion ability |

Ans. (d)

OR

Flexibility in the range of motion around a _____

- (a) Muscle
 - (b) Bone
 - (c) Ligaments
 - (d) Joint
- Ans. (d)**

Q.4 The word Ecto in Ectomorph s related to

- (a) Fat
 - (b) Muscular
 - (c) Tall and Slender
 - (d) None of the above
- Ans. (c)**

Q.5 Who started the Paraolympic movement

- (a) Baron pierre de covbertin
 - (b) Sir ludwing Guttmann
 - (c) G.DSondhi
 - (d) Trischa Zorn
- Ans. (b)**

Q.6 What is Test?

- (a) It is a tool to assess
 - (b) It is process involve numerical value to whatever being tested
 - (c) Systematic assessment of information by set of standards
 - (d) All of the above
- Ans. (a)**

Q.7 The major aim of Physical Education is to ensure a/an

- (a) Child's optimal physical development
 - (b) Programme of activity and sports for all
 - (c) All round development of the individual
 - (d) Complete removal of boredom of the class-room activity
- Ans. (c)**

OR

Man in motion is focus of attention only in

- (a) Kinesiology
 - (b) Bio-mechanics
 - (c) Anatomy
 - (d) Physical education
- Ans. (a)**

Q.8 Physical activity is

- (a) Movements
 - (b) Muscle contraction with result of energy
 - (b) Gym
 - (d) Sports
- Ans. (b)**

Q.9 The side effect of anabolic steroids are

- (a) Liver damage
- (b) Depression
- (c) Acne
- (d) All of above

Q.10 The problem of peer pressure faced more by

- (a) Childhood
 - (b) Adolescence
 - (c) Infant
 - (d) None of above
- Ans. (b)**

Q.11 Given below are the two statement labeled Assertion (A) and Reason (R)

- A. Assertion (A): Olympic Flag/symbol is a milky white background with five interlinked rings of different colours.
- B. Reason (R) : Red Colour in Olympic Flag/symbol represent America Continent.

In the context of above two statement, which one of following is correct?

- (a) Both (A) and (R) are true and (R) is correct explanation of (A)
 - (b) Both (A) and (R) are true but (R) is not the correct explanation of (A)
 - (c) (A) is true, but (R) is false
 - (d) (A) is false, but (R) is true
- Ans. (c)**

Q.12 Match list-I with list - II and select the correct answer from the code below :

	List-I Sports	List-II Competition
(i)	Kabaddi	1. Thomas & Uber Cup
(ii)	Badminton	2. Summer Olympic Games
(iii)	Cricket	3. Asian Games
(iv)	Tennis	4. T-20 World Cup

Code





	(i)	(ii)	(iii)	(iv)
a	1	3	4	2
b	3	2	4	1
c	1	3	2	4
d	3	1	4	2

Ans. (d)

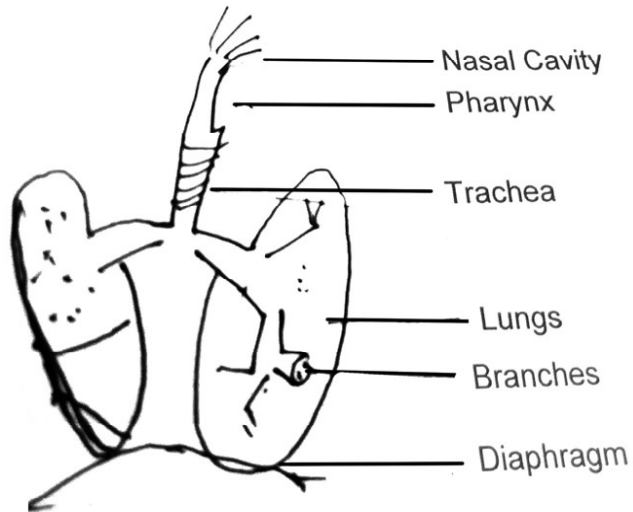
(SECTION-B)

Q.13 Identify the below given Asanas and write the names:

Ans.

- | | | | |
|-----|---|-------|---------------|
| (a) |  | _____ | Vrikshasana |
| (b) |  | _____ | Tadasana |
| (c) |  | _____ | Naukasana |
| (d) |  | _____ | Shashankasana |

Q.14 Name the organ from Structure of Respiratory System.



Q.15 Write about physical Education and its objectives.

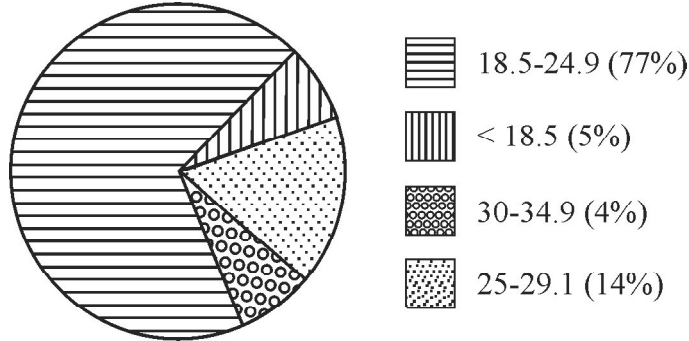
Q.16 What is Adventure Sports? Write about any two types of Adventure Sports.

Or

Write about Tadashana with steps, contradiction and benefits.

(SECTION-C)

Q.17 Below given is the BMI Data of Govt. School's health check up




On the basis of above data; answer the following questions :

A. How many govt, school students are in healthy weight?

- (a) 05% (b) 14%
(c) 77% (d) 04%

B. Which category related to over weight?

- (a)  77% (b)  05%
(c)  14% (d)  04%

C. Write the formula to calculate Body Mass Index (BMI)

Q.18 A student of class XI has visual impairment. She has the dream to win medal at Olympics for the country. She discuss her teacher about the dream of Olympics

Based on this case answer the following questions:

1. Physical Education Teacher tells her about which Olympic games she could take part in?

- (a) Summer Olympics (b) Winter Olympics
(c) Para Olympics (d) Deaf Olympics **Ans. (c)**

2. How many categories of disability cover for Olympics of physical and intellectual disabilities in Para-Olympics?

- (a) 5 (b) 7
(c) 10 (d) 16 **Ans. (c)**

3. Which organisation in India promote Adaptive Sports or sports of students with disabilities?

- (a) Special Olympic Bharat (b) Special Olympic India
(c) Bharat Special Olympic (d) India Special Olympic

Ans. (a)

Q.19 Write about Principles of Sports Training.

Or

Differentiate Skill, Technique and Style.

Q.20 Write about Types of Joints. Write about two

Q.21 Write components of health related fitness and explain any two.

Or

Write about measurement of health related fitness.

Q.22 What is psychology? Write importance of psychology in physical education and sports.

Q.23 Write about centre of gravity and its application in sports.

Q.24 Write about Khelo India Programme.

Q.25 Write about International Olympic Committee.

Q.26 When you are captain of the school team to lead in football match at state level. How can you describe the physical education create a platform for leader. Explain.

Or

Write aims and objectives of Adaptive Physical Education.

(SECTION-D)

Q.27 Describe the components of physical fitness and wellness with examples.

Q.28 Differentiate Growth and Development.

Or

Explain the Development Characteristics of different stages of Development.

Q.29 Differentiate between Para Olympics and Special Olympics in Ancient and Modern Olympics.

Or

Write objectives and values of olympism.

Q.30 A student of class XI has joined the weight Training Gym nearby Gym Instructor and Gym Partners ask him to take steroids and other prohibited substance of Doping to get fast result and look better. Does steroids and Doping substance gives the result better or not? As a friend & PHE student. What you will suggest him about Doping and side effects?

UNSOLVED SAMPLE QUESTION PAPER

Subject: Physical Education (048)

Class-XI

Time : 3 Hrs.

Max. Marks : 70

General Instructions

Q.1 How many objectives of physical education are there?

- | | |
|-----------|----------|
| (A) Four | (B) Five |
| (C) Three | (D) Six |

Q.2 Taking or consuming banned substances is called?

- | | |
|--------------|---------------|
| (a) Steroids | (b) Alcohol |
| (c) Doping | (d) Sedatives |

Q.3 How many types of warming up?

- | | |
|-------|-------|
| (a) 3 | (b) 4 |
| (b) 6 | (d) 2 |

Q.4 Which one is not considered as Health Related fitness?

- | | |
|------------------------|-----------------------|
| (a) Co-ordination | (b) Muscular strength |
| (c) Muscular endurance | (d) Flexibility |

Q.5 How many bones are there in a child and an adult?

- | | |
|--------------|--------------|
| (a) 216, 206 | (b) 208, 212 |
| (c) 213, 206 | (d) 215, 208 |

Q.6 Which is the longest bone in human body?

- | | |
|--------------|------------|
| (a) Humerous | (b) Femur |
| (c) Ulna | (d) Fibula |

OR

Which among the following is the smallest Bone?

- (a) Carpus
- (b) Stapes
- (c) Meta Tarsals
- (d) Tibia

Q.7 Which among the following asana is named an hooded snake pose.

- (a) Tadasana
- (b) Garudasana
- (c) Bhujangasana
- (d) Vrikshasana

Q.8 The Act of in inhaling in Pranayama is called?

- (a) Kumbhak
- (b) Rechak
- (b) Tratak
- (d) Purak

Q.9 Which among the following is not an adventure sports?

- (a) Swimming
- (b) Surfing
- (c) Rafting
- (d) Trekking

Q.10 What is the normal range of BMI

- (a) 18.5-24.9
- (b) 25-29.9
- (c) 30-34.9
- (d) 35-39.9

Q.11 Given below are the two statement, one labeled as Assertion (A) and other as Reason (R)

Assertion : No two individuals are alike

Reason : Individual difference should be given due consideration before prescribing physical activities.

Which of the following statement is correct?

Codes: [a] Both [A] and [R] are true, but [R] is not core explanation of [A]

- (b) Both (A) and (R) are true and (R) is correct explanation of (A)
- (c) (A) is true, but (R) is false
- (d) (A) is false, but (R) is true

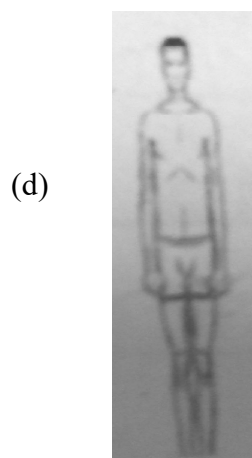
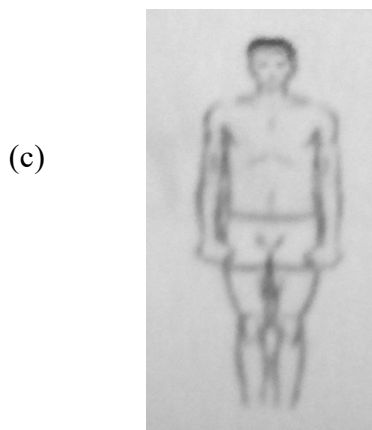
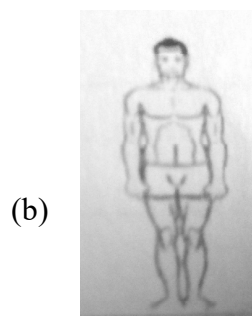
Q.12 Match list-I with list - II and select the correct option using the codes given below :

List-I		List-II
(i)	Adventure Sports	1. Health Indicator
(ii)	Soft Tissue Injuries	2. Paragliding
(iii)	Relaxation Technique	3. Contusion
(iv)	Body Mass Index	4. Yog-Nidra

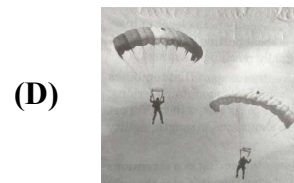
Code

	(i)	(ii)	(iii)	(iv)
(a)	3	4	2	1
(b)	2	1	4	3
(c)	2	3	4	1
(d)	1	2	3	4

Q.13 Identify the below given Asanas and write the names:



Q.14 Identify the below Air Based adventure sports and thier name:



Q.15 What is the role of special education teacher?

Q.16 What is the meaning of term physical fitness?

Q.17 Write down the elements of yoga (only)

Q.18 What is the difference between growth and development?

Q.19 Write any six points mentining the importance of .

Q.20 What are the components of Health Related rexplain any one in detail.

OR

What are the components of Physical Fitness? Explain anyone in detail.

Q.21 What is teh procedure of performing meditation?

Or

What is the importance of pranayama?

Q.22 What are the qualities of good leader.

OR

What is adventure sports? Write any four objectives of adventure sports.

Q.23 Explain Internal and External Respiration.

- Q.24** What is warming up? Explain any four principles of warming up.
- Q.25** Write any 6 career options in Physical Education. Explain any three.
- Q.26** How a physical education teacher helps the children with special needs?
- Q.27** What is Inclusive Education? What is the need for it's implication in Education System?
- Q.28** Write in Details about classification of bones.

OR

What are the types of Joints? Explain in Details.

- Q.29** Write any six principles of sports training.
- Q.30** Write a short note on following (Any 2):
1. Khelo India Programme
 2. Special Olympic Bharat
 3. Somato Types
 4. Equilibrium
-

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