

DIRECTORATE OF EDUCATION
Govt. of NCT, Delhi

SUPPORT MATERIAL
(2022-2023)

PHYSICAL EDUCATION
Class : XI

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Message

Remembering the words of John Dewey, "Education is not preparation for life, education is life itself", I highly commend the sincere efforts of the officials and subject experts from Directorate of Education involved in the development of Support Material for classes IX to XII for the session 2022-23.

The Support Material is a comprehensive, yet concise learning support tool to strengthen the subject competencies of the students. I am sure that this will help our students in performing to the best of their abilities.

I am sure that the Heads of Schools and teachers will motivate the students to utilise this material and the students will make optimum use of this Support Material to enrich themselves.

I would like to congratulate the team of the Examination Branch along with all the Subject Experts for their incessant and diligent efforts in making this material so useful for students.

I extend my Best Wishes to all the students for success in their future endeavours.

(Ashok Kumar)

HIMANSHU GUPTA, IAS
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MESSAGE

“A good education is a foundation for a better future.”

- Elizabeth Warren

Believing in this quote, Directorate of Education, GNCT of Delhi tries to fulfill its objective of providing quality education to all its students.

Keeping this aim in mind, every year support material is developed for the students of classes IX to XII. Our expert faculty members undertake the responsibility to review and update the Support Material incorporating the latest changes made by CBSE. This helps the students become familiar with the new approaches and methods, enabling them to become good at problem solving and critical thinking. This year too, I am positive that it will help our students to excel in academics.

The support material is the outcome of persistent and sincere efforts of our dedicated team of subject experts from the Directorate of Education. This Support Material has been especially prepared for the students. I believe its thoughtful and intelligent use will definitely lead to learning enhancement.

Lastly, I would like to applaud the entire team for their valuable contribution in making this Support Material so beneficial and practical for our students.

Best wishes to all the students for a bright future.

(HIMANSHU GUPTA)

Dr. RITA SHARMA
Additional Director of Education
(School/Exam)



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संदेश

शिक्षा निदेशालय, दिल्ली सरकार का महत्वपूर्ण लक्ष्य अपने विद्यार्थियों का सर्वांगीण विकास करना है। इस उद्देश्य को ध्यान में रखते हुए शिक्षा निदेशालय ने अपने विद्यार्थियों को उच्च कोटि के शैक्षणिक मानकों के अनुरूप विद्यार्थियों के स्तरानुकूल सहायक सामग्री उपलब्ध कराने का प्रयास किया है। कोरोना काल के कठिनतम समय में भी शिक्षण अधिगम की प्रक्रिया को निर्बाध रूप से संचालित करने के लिए संबंधित समस्त अकादमिक समूहों और क्रियान्वित करने वाले शिक्षकों को हार्दिक बधाई देती हूँ।

प्रत्येक वर्ष की भाँति इस वर्ष भी कक्षा 9वीं से कक्षा 12वीं तक की सहायक सामग्रियों में सी.बी.एस.ई. के नवीनतम दिशा-निर्देशों के अनुसार पाठ्यक्रम में आवश्यक संशोधन किए गए हैं। साथ ही साथ मूल्यांकन से संबंधित आवश्यक निर्देश भी दिए गए हैं। इन सहायक सामग्रियों में कठिन से कठिन पाठ्य सामग्री को भी सरलतम रूप में प्रस्तुत किया गया है ताकि शिक्षा निदेशालय के विद्यार्थियों को इसका भरपूर लाभ मिल सके।

मुझे आशा है कि इन सहायक सामग्रियों के गहन और निरंतर अध्ययन के फलस्वरूप विद्यार्थियों में गुणात्मक शैक्षणिक संवर्धन का विस्तार उनके प्रदर्शन में भी परिलक्षित होगा। इस उत्कृष्ट सहायक सामग्री को तैयार करने में शामिल सभी अधिकारियों तथा शिक्षकों को हार्दिक बधाई देती हूँ तथा सभी विद्यार्थियों को उनके उज्ज्वल भविष्य की शुभकामनाएं देती हूँ।

रीता शर्मा
(रीता शर्मा)

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)

भारत का संविधान

भाग 4क

नागरिकों के मूल कर्तव्य

अनुच्छेद 51 क

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 है, 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

It shall be the duty of every citizen of India —

- (a) to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;
- (b) to cherish and follow the noble ideals which inspired our national struggle for freedom;
- (c) to uphold and protect the sovereignty, unity and integrity of India;
- (d) to defend the country and render national service when called upon to do so;
- (e) 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;
- (f) to value and preserve the rich heritage of our composite culture;
- (g) to protect and improve the natural environment including forests, lakes, rivers, wildlife and to have compassion for living creatures;
- (h) to develop the scientific temper, humanism and the spirit of inquiry and reform;
- (i) to safeguard public property and to abjure violence;
- (j) 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;
- *(k) 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.

Note: The Article 51A containing Fundamental Duties was inserted by the Constitution (42nd Amendment) Act, 1976 (with effect from 3 January 1977).

*(k) was inserted by the Constitution (86th Amendment) Act, 2002 (with effect from 1 April 2010).

DIRECTORATE OF EDUCATION

Govt. of NCT, Delhi

SUPPORT MATERIAL

(2022-2023)

PHYSICAL EDUCATION

Class : XI

NOT FOR SALE

PUBLISHED BY : DELHI BUREAU OF TEXTBOOKS

HEALTH AND PHYSICAL EDUCATION

CLASS XI (2022-23)

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PHYSICAL EDUCATION (048)
SYLLABUS, 2022-2023

THEORY

MAX. MARKS 70

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

- Concept, Aims and Objectives of Physical Education.
- Changing Trends in Sports - Playing Surface, wearable gears and sports equipments, Technology Advancement.
- Khelo-India and Fit India Programme.

Unit No. 2 : Olympic

- Ancient and Modern Olympics
- Olympism—Concept and olympic values (Excellence, Friendship and Respect)
- Olympics—Symbol, Motto, Flag, Oath and Anthem
- Olympic movement structure—IOC, NOC, IFS, Other members.

Unit No. 3 : Yoga

- Meaning and Importance of Yoga
- Introduction to Asthang Yoga
- Introduction to Yogic Kriyas (Shatkarma)

Unit No. 4 : Physical Education and Sports for CWSN (Children With Special Needs - Divyang)

- Concept of Disability and Disorder.
- Types of Disability, its causes and nature (Intellectual Disability and Physical Disability)
- Aims and Objectives of Adaptive Physical Education
- Role of various professionals for children with special needs (Counsellor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist and Special Educator)

Unit No. 5 : Physical Fitness, Health and Wellness

- Meaning and importance of wellness, Health and Physical Fitness.

- Components/Dimensions of Wellness, Health and Physical Fitness.
- Traditional Sports and Regional Games for Promoting Wellness.

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. 7 : Test, Measurement and Evaluation

- Define Test, Measurement and Evaluation
- Importance of Test, Measurement and Evaluation in Sports
- Calculation of BMI and 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 and Kinesiology
- Function of Skeleton System, Classification of Bones and Types of Joints.
- Function & Structure of Respiratory System and Circulatory System
- Equilibrium - Dynamic and Static and Centre of Gravity and its Application in Sports.

Unit No. 9 : Psychology and Sports

- Definition and Importance of Psychology in Physical Education and Sports.
- Adolescent Problems and their Management.
- Team Cohesion and Sports.

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

30 Marks

- Project File
(About one sport/game of your choice) 10 Marks
- Demonstration of Fitness Activity 10 Marks
- Viva Voce (From Project File; Fitness) 10 Marks

* 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

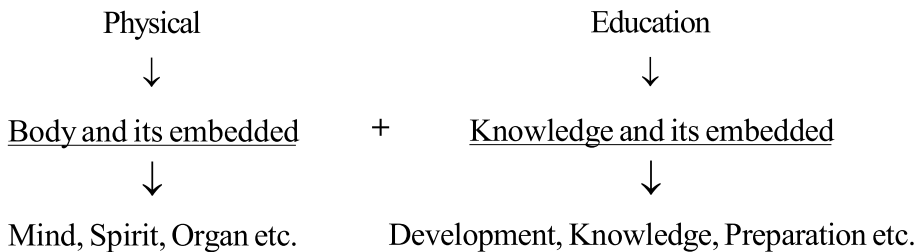
Main Point :-

- ✍ 1.1 Concept, Aims and objectives of Physical Education
- ✍ 1.2 Changing Trends in Sports– Playing Surface, Wearable gears, Sports equipment and Technology Advancements
- ✍ 1.3 Career Options in Physical Education
- ✍ 1.4 Khelo India and Fit India Program

“Both Participation and study are vital to Physical Education”

—Dr. M.L. Kamlesh

1.1 Concept 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.

Or, We Can Say that:-

Physical Education is that part of Education which study the health, sports, athlete, tournaments, nutrition, injuries and body with its embedded – Mind, organs and 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 of a person / all round development.

Objectives of Physical Education

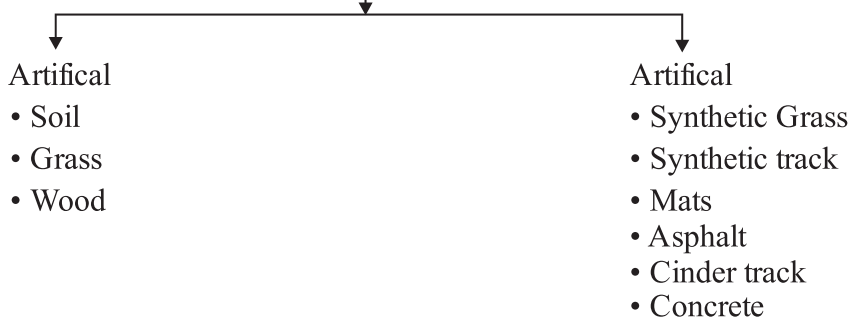
Aim is highest general purpose, objectives are specific. So, after study physical educators, philosophers, international and national association on physical education, we can conclude the following main objective to achieve the ultimate aim. They are given below:

- **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.

2. Changing Trends in Sports

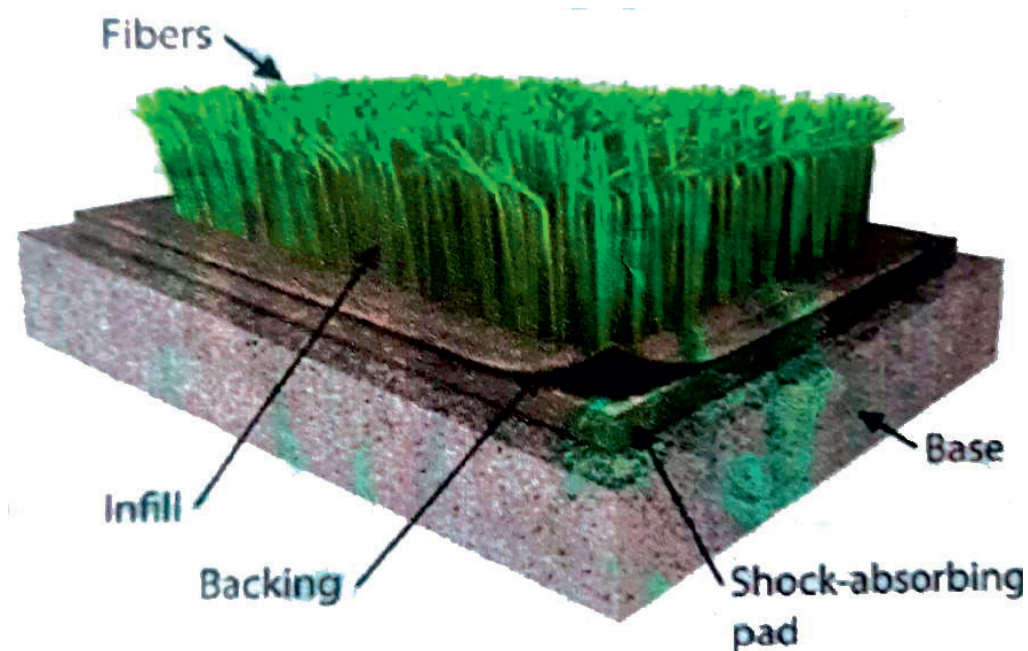
2.1 Playing Surface



Acc. to A Research study Artificial turf Industry (Playing surface industry) is Expected to Reach 12.6 Billion Dollars By 2027.

The world is changing from postcard to Internet text. Today the sports is progressing. Innovating and changing day by day. The synthetic grass come in place of natural grass. The athletics events started on soil track goes to grass track than change to cinder track now it switch to synthetic track. Artificial grass came to prominence in 1966, when astro turf was installed in astrodome in Texas (U.S.A). Artificial turf has gained recognition from several bodies – IOC, NOC, IFS, NFS etc. We can understand the reason of artificial turf recognition of differentiation below

	Natural turf		Artificial turf
Durability	–	Less	More
Cost of Maintenance	–	More	Less
Drainage	–	Crucial	Proper
Maintain	–	Difficult	easier
Water	–	Needs more	Needs less
Needs to give Rest		Endure Extensive use	
Friction – More		Friction – Less	
Become Muddy in rainy season		Not much effects of weather	



2.2 Wearable Gears



Right gear for right sports – does improve the protection and performance in sports. Cricket in shooting shoes is lot harder and less fun. With time sports scientist come to know that every different sports need different attire and wearable gear. So, athletics and cricket shoes has spikes, basketball shoes have high ankle and tennis, badminton shoes are having less friction. Likewise gymnast needs tight leotards and cagers needs loose attire. The outdoor games attire fabrics are also change with time from bamboo, cotton, wool, nylon to polyster, tencel, dryfit etc.

The Revenue of Nike is 36.39 billion Dollar in 2021

2.3 Sports Equipments



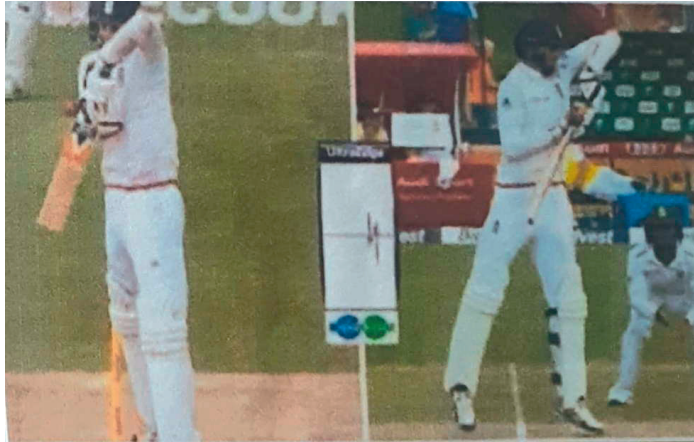
Sports equipments are the tools, materials, apparel and gear used to compete in sports varies according to sports. The equipment ranges from balls, nets and protective gears like helmet over time sports equipment has evolved because of technology, Innovation, Spectators, Competition, Advancement and Protection. Global Market Size of sports equipment is at 331.4 billion Dollar in 2021.

The changing trends in sports equipment bringing the performance improvement, safety, fun, positive way of competition, spectators attraction, beautification, proper decision, business etc. in sports.

2.4 Technology Advancements

Technology is a huge thing within sports, from telecasting of sports to the correct decision. From performance improvement to injury savers. From Physical watch of sports match on T.V. Mobile and OTT Telecast of matches. From man made equipments to machines HD equipments monitor health gadgets and many most advancements and changes took place with time.

Technology Advancement Examples!



- Artificial intelligence
- Smart bails in cricket
- Snicko or edge detector
- Hawk eye
- Flying drones and camera movements



- Photo finish camera
- Video assistant referee
- Athlete's clothing and equipments
- Player and game graphics
- GPS tracker, RFID chips
- Fantasy league e-sports
- Fully Automatic Timing

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 <ul style="list-style-type: none"> Instructor Teacher 	In Schools, colleges, University <ul style="list-style-type: none"> Coach 	Sports Fitness/ Trainer / Medicine Sports Dietician	Professional Players Partner/Training Players	Sports Journalism Book Author	Technology Engg.	Referee
At Middle <ul style="list-style-type: none"> Teacher Demonstrator 	In Various Sports Institutions <ul style="list-style-type: none"> Ground Employees 	Sports Psychology	Sports Planning Officer	Sports videography/ photography	Technology Assistant	Umpires
At Secondary level <ul style="list-style-type: none"> Lecturer 	Industrial Recreation, Masseur	Sport Nutritionist	Sports Management Event manager	Sports Broadcasting	Equipment Designer	Judges
At College and University level <ul style="list-style-type: none"> Professor Teaching at other 	Sports Facility Management	In Gym as Athletic Trainer	Recreational Sport Management	Sports advertising (Sports equipments marketing)	Movement (Bio-Analyser)	
Professional institution <ul style="list-style-type: none"> Sports Scientist Researcher 	Administration <ul style="list-style-type: none"> Director Sports officer 	Health/Fitness/ Wellness Industry Weight management Yoga	Performance Talent (sports) identification		Laboratory	

There are many new 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).

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 June. 2022 is held in Haryana where four indigenous games are added - Gatka, Kalaripayattu, Thang-ta and Mallakhamb. Haryana become champion followed by Maharashtra and Karnataka.

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. IInd Khelo India University games held at Bangalore in 2022 where Jain University–Bangalore, Lovely Professional

University Ludhiana and Panjab University Chandigarh got Ist, IInd and IIIrd Place Respectively.

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

4.2 Fit India Programme

Fit India programme was launched on 29th August, 2019 by Honourable Prime Minister with a view to make fitness an integral part of our daily lives. The mission of the Movement is to bring about behavioural changes and move towards a more physically active lifestyle. Towards achieving this mission, fit Indiaproposes to undertake various initiatives and conduct events to achieve the following objectives:

- To promote fitness as easy, fun and free.
- To spread awareness on fitness and various physical activities that promote fitness through focused campaign.
- To encourage indigenous sports.
- To make fitness reach every school, college/university, panchayat/village, etc.
- To create a platform for citizens of India to share information, drive awareness and encourage sharing of personal fitness stories.

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
 - Collage 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 recieve, 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.

Q. Write the advantages of changing trends in sports equipment

- Ans.**
1. Performance upliftment
 2. Correct decision
 3. Injury saver
 4. Spectators attraction
 5. Sports business industry progression
 6. Beautification of sports
 7. Sports broadcasting
 8. Competition sprit development
 9. Olympic sprit development

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. Book Writing
- (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

Olympics

Main Point :

-  2.1 Ancient and modern olympics
-  2.2 Olympism – Concept and olympic values (excellence, friendship and respect)
-  2.3 Olympics – Symbol, motto, flag, oath and anthem
-  2.4 Olympic movement structure – IOC, NOC, IFS other members

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 are schedule for 2024 and 2028 Olympics.

Different and similarities between Ancient and Modern Olympics

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.

3.1 Concept of Olympism

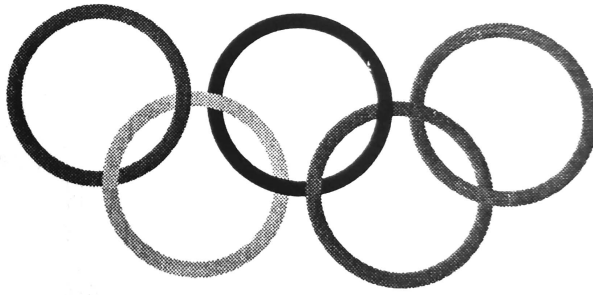
Olympism is a philosophy of life it balance the body as whole, will and mind. The practice of sport is a Human Right. Every individual must have the possibility of practising sports without discrimination with olympic spirit. The goal of olympism is to place sports for harmonious development of human kind. The olympic

movement is the concerted, organised, universal and permanent action under the supreme authority of the IOC

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.

- 3.1 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.
- 3.2 Olympic Motto :-** The Olympic motto is made of three latin words– “Citius, Altius, Fortius” and one English word ‘Together’ means– “Faster, Higher, Stronger and Together”.
- 3.3 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.

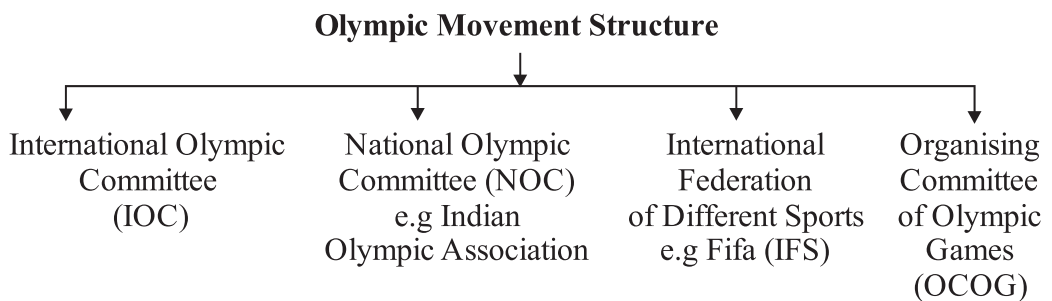


Olympism Oath :- New Oath Effective From Sydney Olympics-2002: "In the name of all the competitors I promise that we will take part in these Olympic games respecting and abiding by the rules which govern them without the use of doping and drugs in the true spirit of sportsmanship for the glory of sport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

3.5 Olympic Anthem:

The Olympic Anthem is Musical work entitled olympic Anthem' Composed by Spiro Samara.

4. Olympic Movement Structure



4.1 Mission and Role of the IOC

The mission of the IOC is to promote Olympism throughout the world and to lead the Olympic 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.
14. To encourage and support a responsible concern for environmental issue, to promote sustainable development in sport and to require that the Olympic Games are held accordingly:
15. To promote a positive legacy from the Olympic to the host cities, regions and countries;
16. To encourage and support initiatives blending sport with culture and educations:

4.2 Mission and Role of the NOC's

1. The mission of the NOCs is to develop, promote and protect the Olympic Movement in their respective countries, in accordance with the Olympic Charter.
2. The NOCs' role is:
 - 2.1 to promote the fundamental principles and values of Olympism in their countries, in particular, in the fields of sport and education, by promoting Olympic educational programmes in all levels of schools, sports and physical education institutions and universities, as well as by encouraging the creation of institutions dedicated to Olympic education, such as National Olympic Academies, Olympic Museums and other programmes, including cultural, related to the Olympic Movement.
 - 2.2 to ensure the observances of the Olympic Charter in their countries:
 - 2.3 to encourage the development of high performance sport as well as sport for all;
 - 2.4 to help in the training of sports administrators by organising courses and ensuring that such courses contribute to the propagation of the Fundamental Principles of Olympism.
 - 2.5 to take action against any form of discrimination and violence in sport;
 - 2.6 to adopt and implement the World Anti-Doping Code:
 - 2.7 to encourage and support measures relating to the medical care and health of athletes.
3. The NOCs have the exclusive authority for the representation of their respective countries at the Olympic Games and at the regional, continental or world multi-sports competitions patronised by the IOC. In addition, each NOC is obliged to participate in the Games of the Olympiad by sending athletes.
4. The NOCs have the exclusive authority to select and designate the interested hosts which may apply to organise Olympic Games in their respective countries.

5. In order to fulfil their mission, the NOCS may cooperate with governmental bodies, with which they shall achieve harmonious relations. However, they shall not associate themselves with any activity which would be in contradiction with the Olympic Charter. The NOCs may also cooperate with non-governmental bodies.
6. The NOCs must preserve their autonomy and resist all pressures of any kind, including but not limited to political, legal, religious or economic pressures which may prevent them from complying with the Olympic Charter.
7. NOCS have the right to:
 - 7.1 designate, identify or refer to themselves as "National Olympic Committees ("NOCS"), which designation or identification shall be included or referred to in their name,
 - 7.2 send competitors, team officials and other team personnel to the Olympic Games in compliance with the Olympic Charter,""7.3 benefit from the assistance of Olympic Solidarity.

4.3 Mission and Role of the IFs within the Olympic Movement

1. Mission and role of the IFs within the Olympic Movement
 - 1.1 to establish and enforce, in accordance with the Olympic spirit, the rules concerning the practice of their respective sports and to ensure their application;
 - 1.2 to ensure the development of their sports throughout the world;
 - 1.3 to contribute to the achievement of the goals set out in the Olympic Charter, in particular by the spread of Olympism and Olympic education;
 - 1.4 to support the IOC in the review of candidatures for organising the Olympic Games for their respective sports;
 - 1.5 to assume the responsibility for the control and direction of their sports at the Olympic games:

- 1.6 for other international multisport competitions held under the patronage of the IOC, IFs can assume or delegate responsibility for the control and direction of their sports;
 - 1.7 to provide technical assistance in the practical implementation of the Olympic Solidarity programmes;
 - 1.8 to encourage and support measures, relating to the medical care and health of athletes.
2. In addition, the IFs have the right to:
- 2.1 to formulate proposals addressed to the IOC concerning the Olympic Charter and the Olympic movement;
 - 2.2 collaborate in the preparation of Olympic Congresses;
 - 2.3 participate, on request from the IOC, in the activities of the IOC commissions.

4.4 “Organising Committee”

The host of the Olympic games shall be responsible for the establishment of an Organising Committee (“OCOG”), for the purpose of the organisation of the Games and in accordance with the provisions of the Olympic Host Control.

From the time of constitution to the end of its liquidation, the OCOG and conduct all its activities in accordance with the Olympic Charter, with the agreement entered into between the IOG, the NOG and the host and with any other regulations or instruction of the IOC Executive Board.

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) Commonwealth 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) Theodosious
- (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.

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 honored 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 Cothepus of Elis, a cook, who, won the sprint race in 776 B.C. Hellanodikis placed the sacred olive tree wreath, *horkos*, 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 23rd 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.

Unit - 3

Yoga

Main Point :-

-  3.1 Meaning and Importance of Yoga
-  3.2 Introduction to Ashtanga Yoga
-  3.3 Introduction to Yogic Kriyas (Shat Karma)

3.1 Meaning and Importance of Yoga

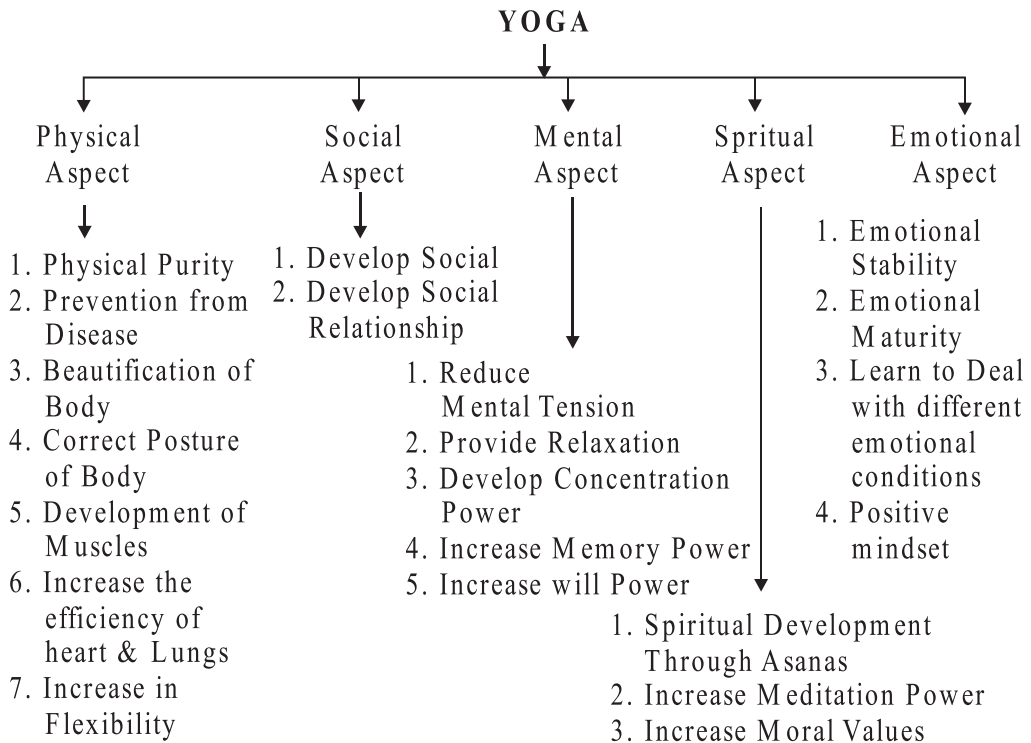
Meaning: The term yoga is derived from a Sanskrit word 'Yuj' which means to unite or union. In fact joining the individual self with the divine or universal spirit is called 'yoga'. It is a science of development of man's Consciousness.

According to Patanjali:- "Checking the impulse of mind is yoga".

According to Maharishi Ved Vyas:- "Yoga is attaining the pose".

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

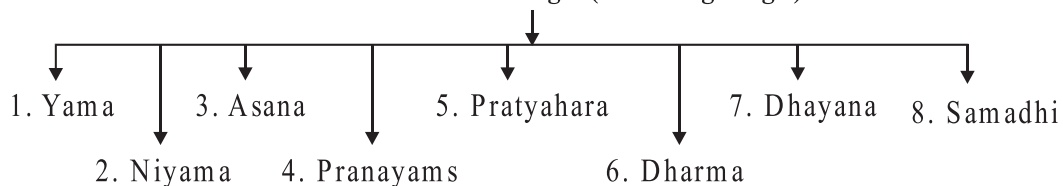
Importance of Yoga:



3.2 Introduction To Ashtanga Yoga

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

Elements of Yoga (Ashtang Yoga)



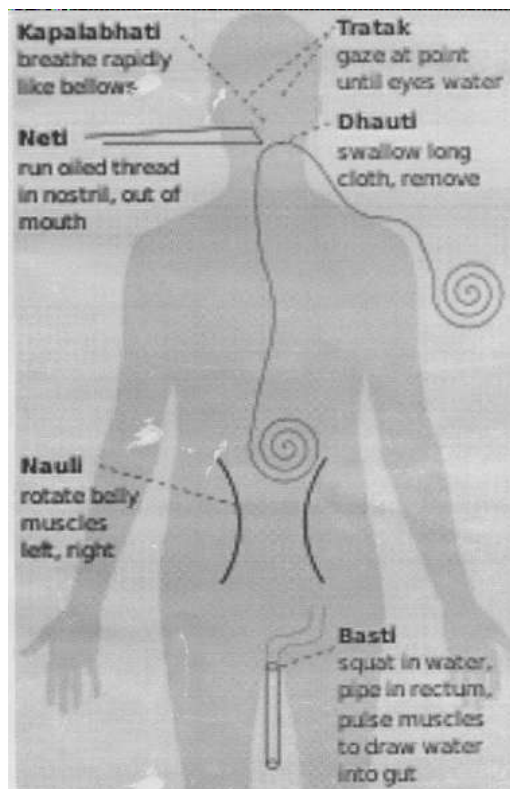
1. **YAMA** : Restrains or observances regarding how the Yogi's should relate to his or her community. The Yamas are : **Ahinsa** (Non Violence) **Satya** (Truthfulness) **Asteya** (Non-stealing) **Brahamcharya** (Conservation of vital energy) **Aparigraha** (Non-hoarding)
2. **NIYAMA** : Intense observance that the Yogi's should carry out in his/her daily life in order to have a body and mind suited for Yoga. The Niyamas are soch (Clearliness of body and mind) **Santosh** (Contentment) **Tapas** (Discipline) **Svadhya** (Self study) **Ishvar Pranidhana** (surrender to Divine)
3. **ASANA** : It literally translates to 'SEAT'. These are meditative postures that promotes stillness of mind and physical efficiency while sitting in meditative postures for longer period of time.
4. **PRANAYAMA** : 'Prana' is life/force/breath or vital energy and Yama means restraint. It means pranayama is extension of the life force. These are breathing practices that involves the retention of breath.
5. **PRATYAHARA** : Withdrawal of the senses from things that are not conducive to the practices of Yoga and process of moving from external world to internal world. When the 5 senses are quelled, the mind can then become still.
6. **DHARMA** : Concentration on the forces or single thing, ideally something spiritually in nature.
7. **DHYANA** : Meditation, uninterrupted concentration, flowing concentration in which the meditator begins to merge with the object of meditation is called dhyana.
8. **SAMADHI** : A super conscious trance in which the mind merges fully with and becomes one with the object of meditation (Atma ka parmatma se milan) in highest state of samadhi. This is ultimate state of meditation.

3.3 INTRODUCTION TO YOGIC KRIYAS (Shatkarma)

The six kriyas of yoga in sanskrit is called 'shatkarma' which is actually purification techniques. The purpose of these cleansing techniques (shatkarma) is to keep the body strong, clean and healthy as this results into the removal of toxins and anything blocking the flow of 'prana' in the body. It should always be learned and practiced under the supervision of experts.

Importance of shatkarmas

- Shatkarmas cleanses and activates all vital organs of the body.
- It helps in purification of body.
- It helps in purification of mind.
- It helps in detoxification of various organs.
- It enhances the efficiency of all vital organs.
- It helps in increase in blood supply to the organs.



There are six cleansing processes according to Hath Yoga are as follows: Neti, Dhauti, Basti, Tratax, Nauli and Kapalbhati.

1. Neti : Keep nasal passages, clean

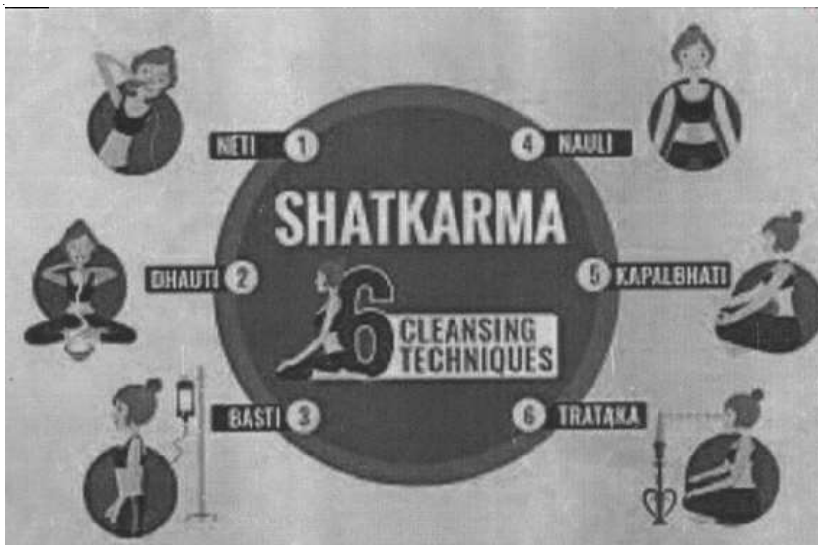
2. Dhauti: It means teeth or Mula which means roots. A cleansing process.

3. Basti : It is technique of replenishing the body internally by cleansing the colon completely.

4. Trataka : Train the eyes and mind. It helps in Strengthening of optic nerves for better eyesight.

5. Nauli: This is the technique used to clean the abdominal region specially digestive organs.

6. Kapalbhati : Kapal means forehead, bhati means shine



OBJECTIVE TYPE QUESTIONS (1 MARK)

Q.1 Who is the writer of 'Yogsutra'?

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

Ans. (a) Maharshi patanjali

Q.2 The number of Element of yoga are—

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

Ans. (b) Eight

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

- (a) Sataya (b) Aprigrah
- (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. (c) Three

Q.5 Which is the eighth element 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) Ehakrasana
- (c) Mayurasana (d) Shavasana

Ans. (b) Shavasana

Q.7 The number of yogic kriyas are or the shatkarma includes how many Kriyas?

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

Ans. (a) Six

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

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

Ans. (d) 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. (d) Tadasana

SHORT TYPE QUESTION (3 MARKS EACH)

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

Or

What is the 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.3 What is the role of meditation in sports?

Or

What is the 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 activates the brain and mind properly.
6. It helps in controlling anger problem.

LONG TYPE QUESTIONS (5 MARKS EACH)

Q.1 What is shatkarma? Explain in detail.

Ans. The purification process of body includes six yogic kriya which are called 'shatkarma'. The purpose of these cleansing techniques or 'shatkarma' is to keep body strong, clean and healthy as it helps in removal of toxins and anything blocking the flow of 'Prana' in the body. According to hath yoga the six cleansing processes are:

Neti : Keep nasal passages clean

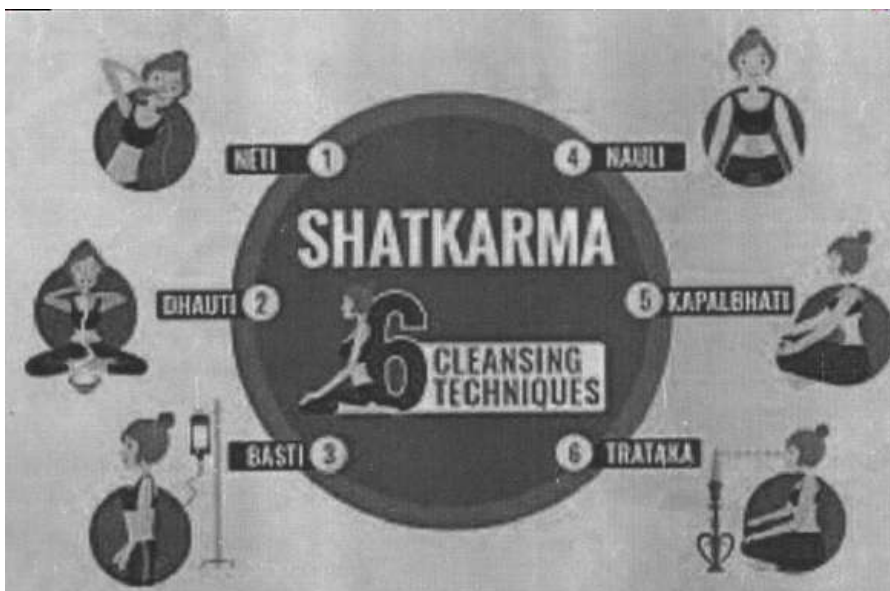
Kapalbhati : Kapal means forehead, bhati means shine

Trataka : Train the eyes and mind

Basti : Clean large intestine

Dhauti : Used for cleansing the internal part eg. Digestive

Nauli : Shaking the belly, ease the process of digestion



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) Shapes the body |
| (vii) Cures various diseases | (viii) Reduces obesity |
| (ix) Improves health | (x) Maintains correct posture |
| (xi) Increases flexibility | |

2. ELEMENTS OF YOGA

Ashtanga Yoga : ‘Ashta’ means eight and ‘Anga’ means limbs. It means eightlimbs 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) Brahmacharya (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 od meditation,
- (viii) **Samadhi** : Stage in which one loses personal identfty. Union of individual's soul with the supreme soul.

SHATKARMA : The six cleansing techniques of body all together are called shatkarma.

The Six Yogic Kriyas are:–





Yogica Kriyas help the individual to clean the internal as well gs 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 Khya |
| (v) Kapalbhati Kriya | (vi) Trataka Kriya |

Unit - 4

Physical Education and Sports for CWSN (Children with Special Needs- Divyang)

Main Point :-

-  4.1 Concept of Disability and Disorder
-  4.2 Types of Disability, its Causes and Nature (Intellectual Disability, Physical disability)
-  4.3 Aim and objective of Adaptive Physical Education
-  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 CONCEPT OF DISABILITY AND DISORDER

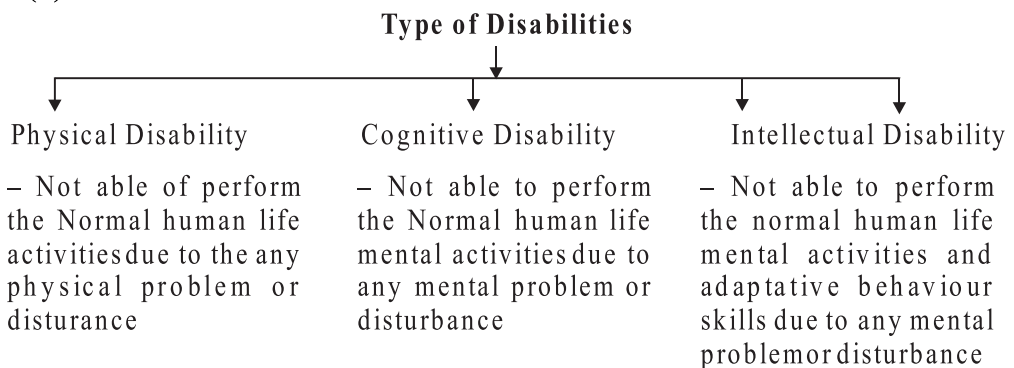
Disability : Any disadvantage due to which an individual is not able to perform the activities of normal human life is known as disability.

Disorder : Any disruption due to which an individual is not able to perform his daily human activities is known as disorder.

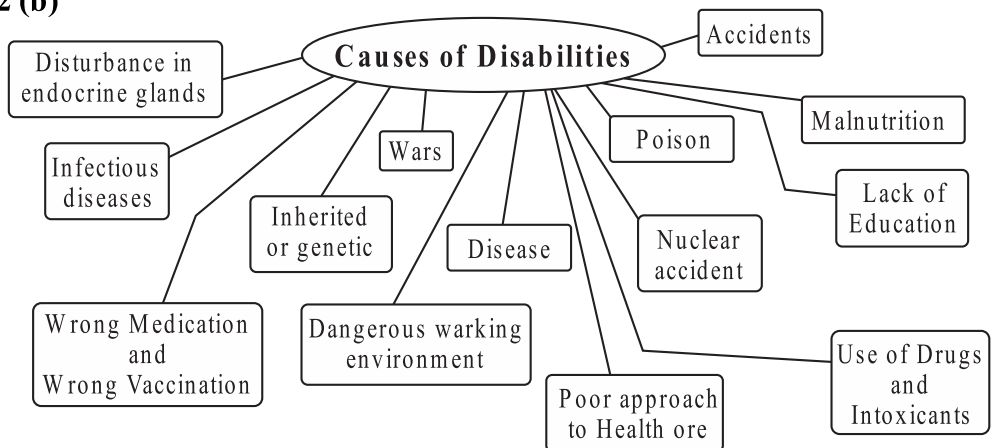
Disability is an impairment that may be cognitive, intellectual, mental, physical development etc. It affects the everyday activities of the individual to a considerable amount. It may be present in an individual from birth or occur during one's lifetime.

Concept of disorder: A disorder is an illness or a dysfunctional factor that affects the physiology and psychology of an individual. It can be structural or functional.

4.2 (a)



4.2 (b)



- 4.2 (c) A physical Disability** is any condition that permanently prevents normal body movement and or control. In the early year, children may have some difficulties in learning to move skillfully. This is not unusual. However, for some children, the muscles and nerves that control body movements may not be properly formed or may become damaged causing a physical disability. There are many different types of physical disabilities.
- 4.2 (d) Intellectual Disability** once called mental retardation, is characterized by below average intelligence or mental ability and a lack of skills necessary for day to day living. People with intellectual disabilities can learn new skills, but they learn them more slowly. There are varying degrees of intellectual disability. From mild to profound.

4.2 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, hearing impairment, speech impairment, blindness, orthopedic impairment, and autism etc. The programme of adaptive physical education involves specially designed programme of physical fitness, motor fitness, fundamental motor 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 disability, 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.

4.4 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 are as 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 in dependence 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 pregressive role in improving cognitive functions and academic performance. Social skills and collaborative team work can also be enhanced through the defferent programmes of physical education. The physical education teacher helps in executing these programmes.

MIND MAPPING

Disability: According to “World Health Organisation” (WHO) “A disability is a restriction or lack (resulting from impairment of ability to perform an activity in the manner or within the range considered normal for a human being.”

Disorder: According to collins dictionary, “A disorder is a problem or illness which affects someone’s mind or body.”

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

2. 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 Most suitable word used for disabled person.

- | | |
|-----------------|--------------|
| (a) Handicapped | (b) Retarded |
| (c) Divyang | (d) Blind |

Ans. (c) Divyang

Q.2 What is a disorder?

- (a) Disrupts a person's performance
- (b) It is a mental illness

- (c) Lethal gradually
- (d) It is a physically inability

Ans. (a) Disrupts a person's performance

Q.3 Speech therapist helps a child of CWSN in which activity?

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

Ans. (b) Communication

Q.4 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

SHORT QUESTION ANSWER

Q.1 Differentiate between Disability and Disorder?

Disability	Disorder
1. It is a physical, mental, cognitive, condition that impairs, interferes with or limit a person's ability to engage in certain action of participate in daily activities.	1. It is an illness or dysfunctional factor that affect or disrupt the person physical or mentallly.
2. There is no chance to become normal.	2. High chances to become normal.
3. Disability is concerned with various part of the body.	3. Disorder is concerned with mental ability.
4. Disability is 3 types or physical, cognitive and intellectual disability.	4. Disorder is 5 types ADHD, SPD, ASD, OCD and ODD.

Q.2 Enlist the different objectives of adaptive Physical Education?

Ans. The following are the objectives of adaptive Physical Education:

- (a) To provide the physical education services.
- (b) To develop self esteem.

- (c) To develop motor skills
- (d) To develop the knowledge of Bio-mechanics
- (e) To increase active participation in sports.
- (f) To develop physical fitness.
- (g) To develop socialization skill.

LONG 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.

Therefore, 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 as per 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 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.3 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.4 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 disabled 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.5 What is role of speech language pathologist for special need children?

Ans. Speech therapist/pathologist works with children with a variety of delay and disorder such as Autism Down Syndrome, hearing impairment, motor speech disorders and other development delays.

They help child with:

- (a) Articulation skills:** Speech intelligibility articulation is the physical ability to move the tongue, lips, jaw and palate (known as articulators) to produce individual speech sound which we phonemes.
- (b) 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.
- (c) 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 questions and participate in single conversations with others. Physical education teacher need to determine the abilities of students with special needs so that to design special sports activities according to their need.
- (d) Speech fluency/Stuttering:** Stuttering is a communication disorder that affects speech fluency. Therapist can teach the child strategies on how to control behaviour like tension in the neck, shoulders, face, jaw, chest, eye blink etc. and thus increasing speech fluency and intelligibility.

(e) **Voice and Resonance:** Voice disorder refers to disorder that effect the vocal folds that allow us to have a voice. These can include vocal cord paralysis, nodules or polyps on vocal folds. Therapist can work with children to decrease these behaviours and reappear the strain/damage of the folds.

Q.6 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






Q.7 How can you improve team cohesion in sports?

Ans. Ultimately the coach and manager is responsible for developing and improving team cohesion.

- (a) Clearly set goals for the team to achieve.
- (b) The second step is to set goals for each individual in your team. To ensure all group members feel valued. This improves the internal motivation of the team and individuals with the team.
- (c) It need to ensure provide feedback to the players as well as to the team as a whole. Regularly ask for opinions of your players and listen to suggestion from them.
- (d) Establish the right environment

Unit - 5

Physical Fitness, Health And Wellness

-  5.1 Meaning and Importance wellness, Health and Physical Fitness
-  5.2 Components/Dimensions of Wellness, Health and Physical Fitness
-  5.3 Traditional Sports and Regional Games for Promoting Wellness

5.1 (A) Meaning and Importance of Wellness, Health and Physical Fitness

Meaning:

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

Health:- It is a state of physical mental and social well being and not just the absence of disease or infirmity.

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.

5.1 (B) 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.
3. **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.
4. **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.
5. **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.
6. **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 Health

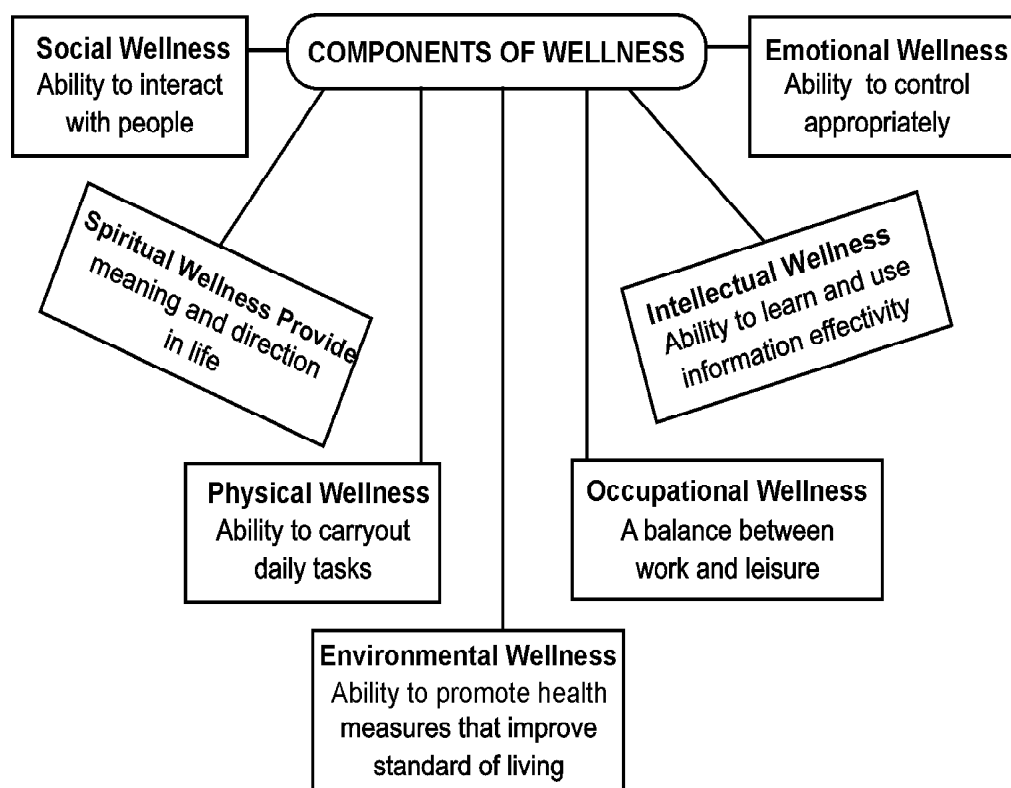
- Slows down the aging process.
- Help to live Healthy life.
- Help us to keep us free from illness.
- Help us to keep high level of energy.
- It helps us to lead a healthy lifestyle.
- Individual leads to more productivity in daily life.
- Helps in reducing stress and depression.
- Increased level of physical fitness.
- Helps in boosting self confidence.
- It helps to lead a happy life.

Importance of Physical Fitness

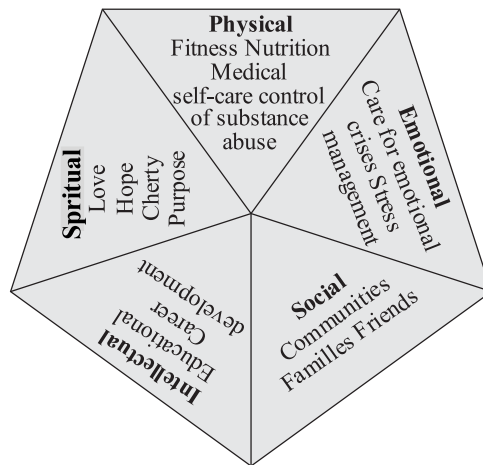
1. **To live a long and healthy life:** A physically fit person not only lives a healthy life but also a longer life.
2. **To increase the energy, power and capacity of the body:** A physically fit person can do his routine work without undue fatigue. The strength and capacity is increased because of internal energy due to which he can perform extra curricular task after finishing the routine work. Fore.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.

5.2 Components of Wellness, Health and Physical Fitness



DIMENSIONS OF HEALTH



Components of Physical Fitness:-

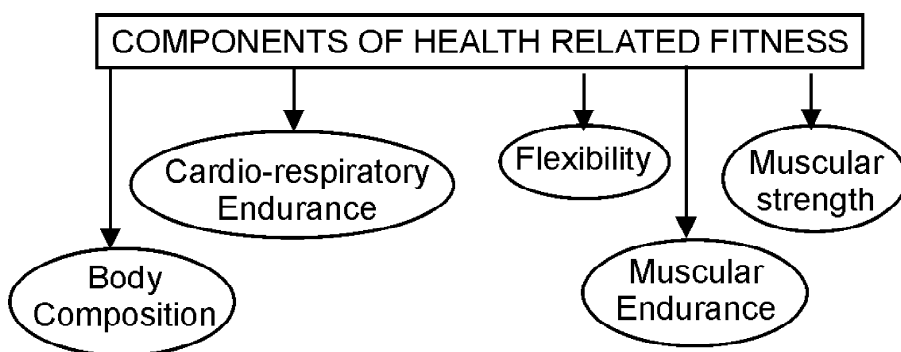
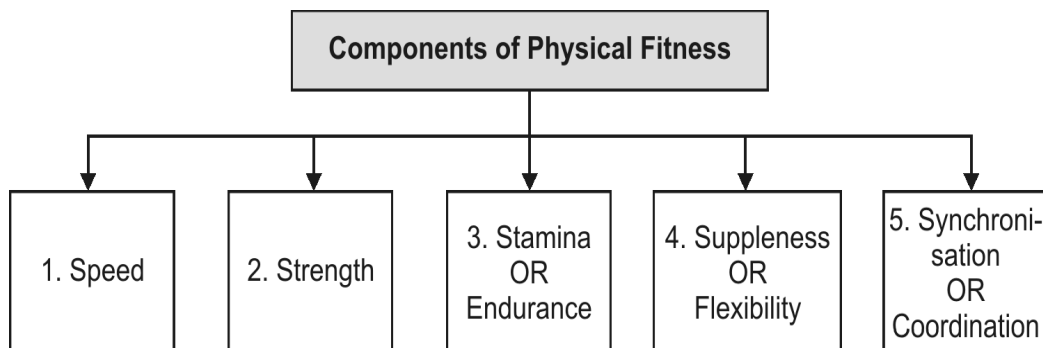
For the overall development of fitness. It is necessary to know the different kinds of fitness required for specific programmes. Physical fitness can be divided into three main areas:-

- 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:



5.3 Traditional sports and Regional games for promoting wellness

India has a great tradition of sports and is greatly influenced by the British presence in India in the 8th and 19th century. India, is a large populous country and have retained the popularity of indigeneous games among people.

Traditional sports and games provide unique opportunities that mainstream sports may not. These are generally based on fun and participation. These games and sports are important as they inculcate positive experiences through physical activities and also preserve chances to take part and benefit from the virtues of community interaction and culture. They are a living legacy of what has gone before us and how can we enrich the future. In other words we can say that

these games are our cultural heritage of India.

Traditional Sports and Games (TSG) is recognized by UNESCO as world intangible heritage and even more than their title suggests. TAFISA (The Association for International Sports for All) heads all the Traditional Sports and Games (TSG) associations or we can say TSG's, area at core of TAFISA's mission. India has shown promise in olympic sports, displaying some of the best talent on the global platform. However, there are several traditional sports native to the country that many are unaware of that India is the land of traditional sports as it has diversified culture and traditions. Indian Association of Traditional Games and Sports (IATSG) was formed to revive and promote traditional games and sports under the guidance of the International Council for Traditional Sports and Games (ICTSG)

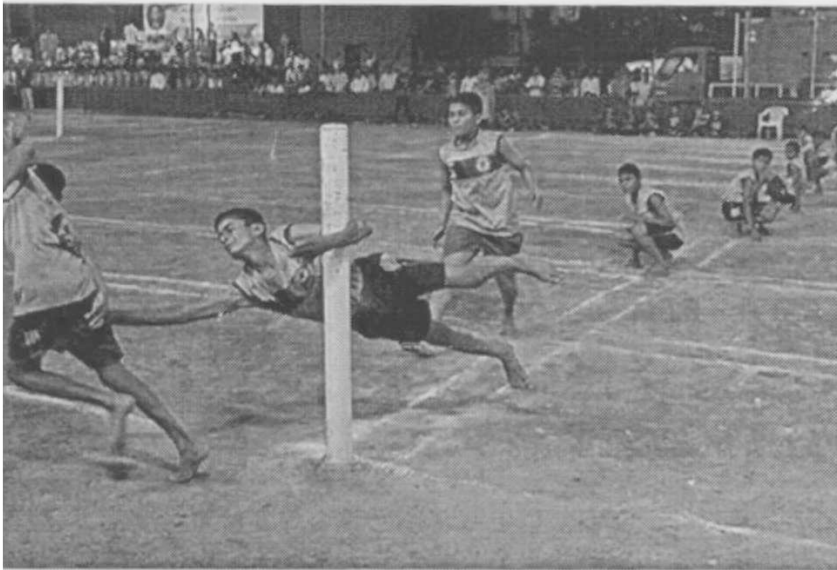
India is one of the largest country in the world in both area and population and allow amongst those few countries that have retained the popularity of then indigenous games among its people for the wellness.

Traditional or Regional Sports of India

- **Ball Badminton** – a racket game native to India played with a yellow ball made of Wool, with similarities to Badminton in 1856 it was played by Royal Families in Tamil Nadu.



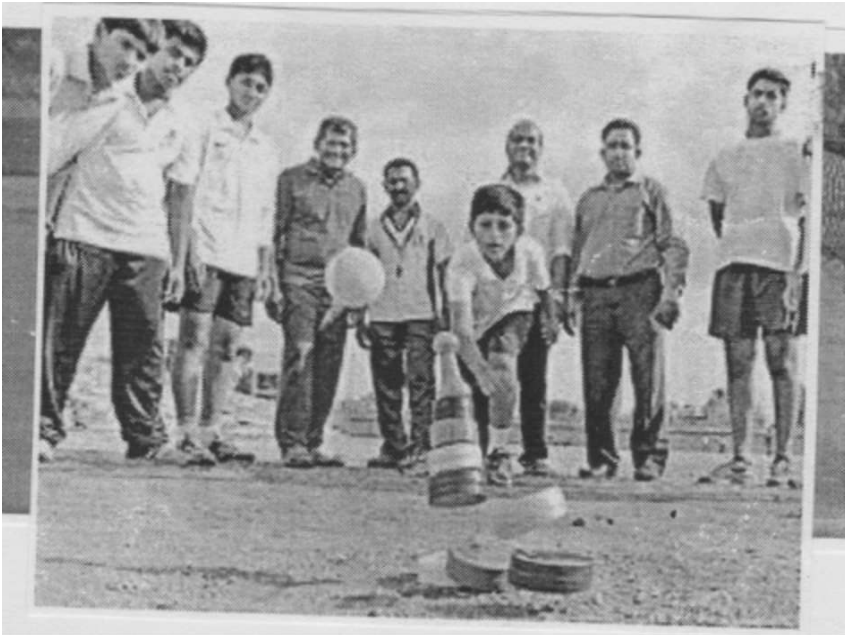
- **Kho-Kho** – This Game is played on ground having two poles each side of 29 mts × 16 mts area the team that takes lesser time to tag all the opponent players wins the game. Originated in Tamil Nadu around 1914.



- **Kabaddi** – Kabaddi is a contact team sport, played between two team. The objective of the game is for a single player on offence is known as a ‘raider’ enters the opposite team’s half to tag opponents without losing cant. It is also known as Kaudi, Pakaada, Hadu du, Bhautik Hu-Tu-Tu and Himashika. It is also originated in Tamil Nadu.



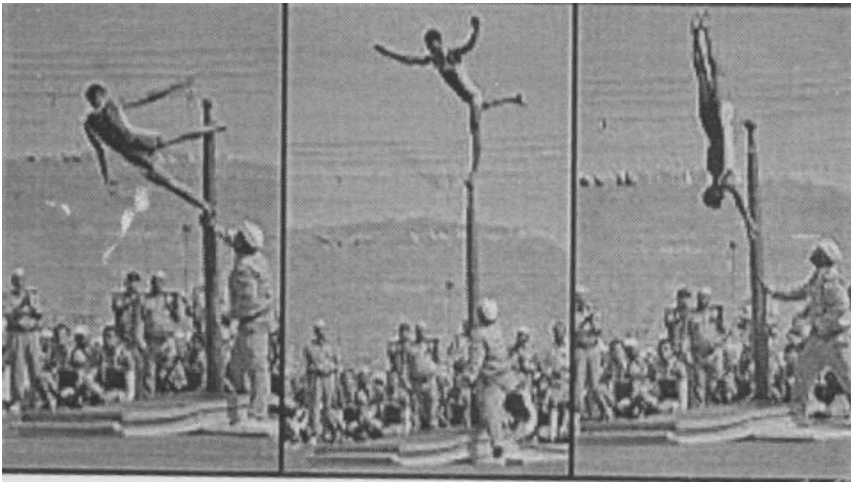
- **Lagori** – from southern India, this game involves a ball and a pile of flat stones. A member of one team throws a soft ball at a pile of stones to knock them over, then try to restore the pile of stones while the opposing team throws the ball at them (also called Pittu).



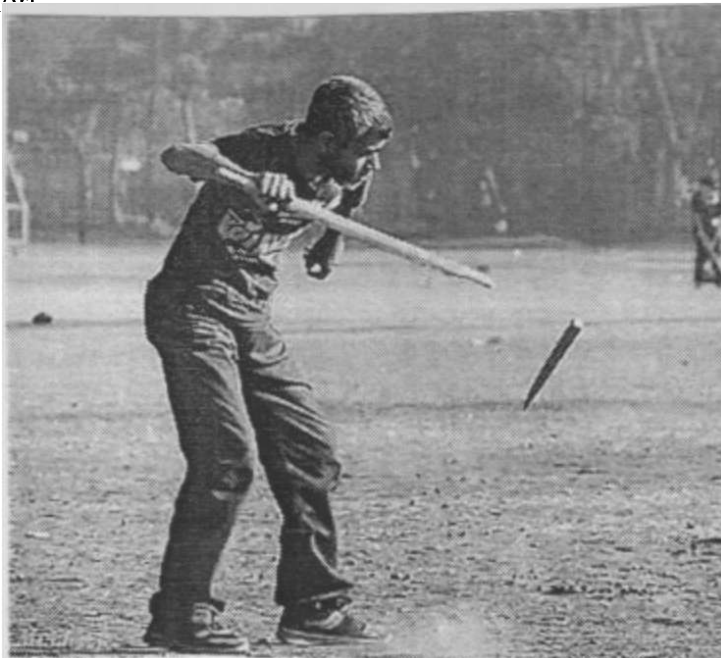
- **Yubi Lakpi** – a seven-a-side traditional football game with similarities to rugby played in Manipur, India, using a coconut.



- **Mallakhamba** – a traditional Indian sport, where athletes perform various types of gymnastics moves and hold various poses on a vertical wooden pole or a rope and is popular in Maharashtra and Madhya Pradesh.



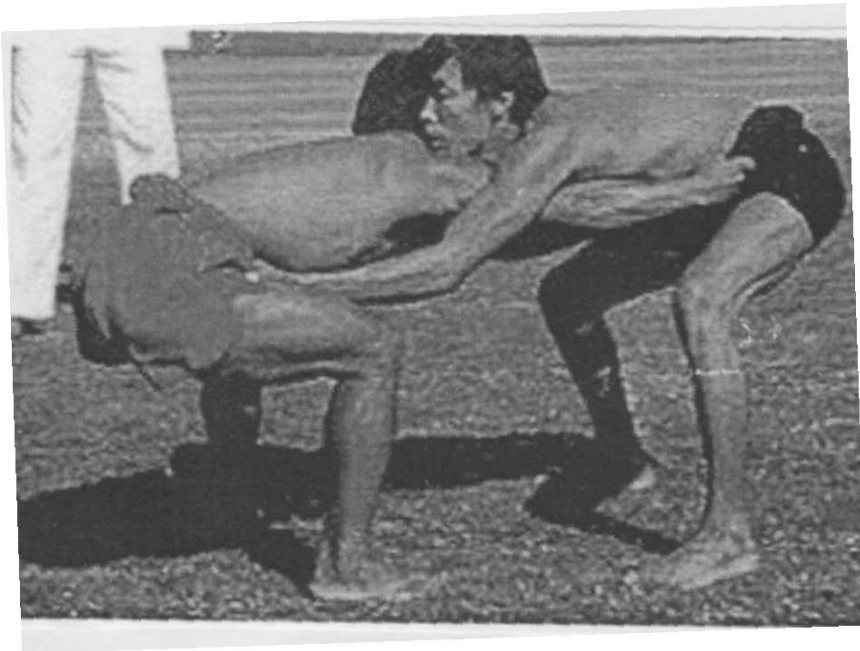
- **Gilli Danda** – a South Asian game played with two sticks, one long and the other short



- **Kalaripayattu**– an ancient martial art from Kerala, India.



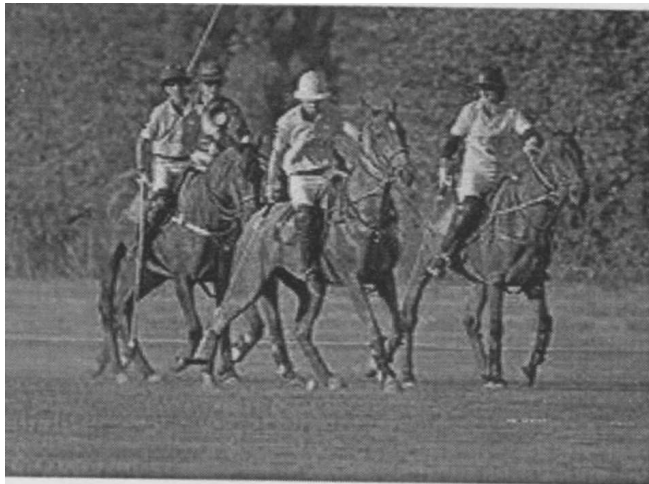
- **Pehlwani** –a form of wrestling from south Asia. A win is achieved by pinning the opponent's shoulders and hips to the ground simultaneously.



- **Vallam Kali** – It is popularly known as snake boat race due to the length and shape of the boat. This game is very famous in Kerala.



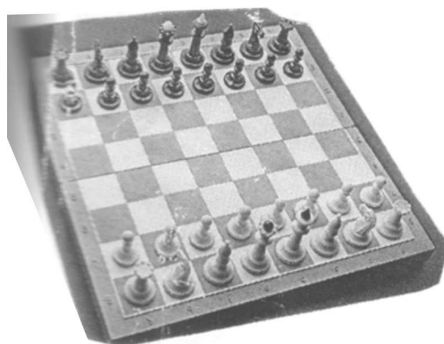
- **Chaugan or Polo** – It is believed to have originated in Manipur. In ancient India, monarchs used to play 'Elephant Polo' for recreational purpose. This Indian origin based sport later propagated by Britishers and now is popular across the world.



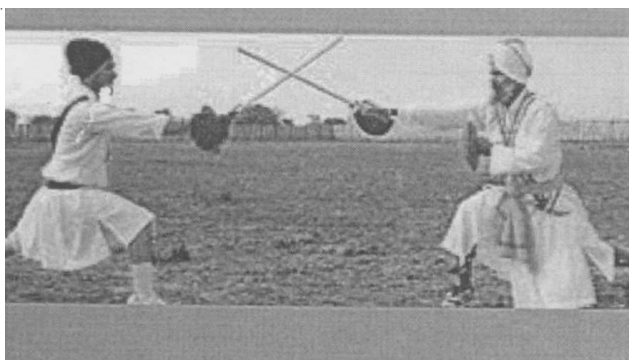
- **Judo and Karate** – These martial art forms are claimed to have originated in ancient India. Further, it is said these martial arts were adopted by the Buddhist monks in medieval India and later spread to other Asian countries when they were travelled.



- **Chess** – One of the most ancient games that originated in India, it was initially called ‘ASHTAPADA’ later it is called ‘CHATURANGA’ during the rule of gupta empire. parsins who travelled to ancient India, picked this game and named it as ‘SHATRANJ’. In Indus valley civilization, also the existance of this game was seen in archeological evidence. Its popularity grew in British period too even today, India leads this game of chess in the world.



- **Gatka** – It is a form of martial art associated primarily with the sikhs of Punjab and other related ethence groups such as ‘Hindkowans’. It is style of stick fighting with wooden sticks and swords.



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 to 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)

Q.11 Hu-Tu-Tu is also called:

- | | |
|-------------|-----------------|
| (a) Kho-Kho | (b) Pithu |
| (c) Kabaddi | (d) Judo-karate |

Ans. (c) Kabaddi

Q.12 YUBI-LAKBI a form of Football is originated in:

- | | |
|--------------------|-------------|
| (a) Keral | (b) Manipur |
| (c) Madhya Pradesh | (d) Kolkata |

Ans. (a) Manipur

SHORT TYPE QUESTION

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.

Ans. Importance of healthy:

- (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 coordination 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

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 do sustain or continue activity of it is the ability to rest 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 basket ball.
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 How can we improve our wellness in Daily life?

Ans. The following are the ways through which we can improved our 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 ever 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.5 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.

Q.6 What are Traditional Games and Sports? Enlist them.

Ans. Traditional Games and Sports are the sport's cultural Heritage of India which provides unique opportunities for mass participation and for activities which lead to recreation. These are important as they inculcate positive experiences through physical activities and benefit from the virtues of community interaction and culture. The following is the list of traditional games:

- | | |
|------------------|-----------------|
| • Ball Badminton | • Kho-Kho |
| • Kabaddi | • Lagori |
| • Yubi Lakpi | • Malkhamba |
| • Gilli Danda | • Kalaripayattu |
| • Pahalwani | • Vallam Kali |

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.

Health: It was a state of complete physical mental and social wellbeing and Notjust absense of disease or injirmity.

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

7. Dimensions of Health

- (i) Physical
- (ii) Emotional
- (iii) social
- (iv) Mental /Intellectual
- (v) Spiritual




8. Traditional games and Sports

Traditional games and sports are the sports cultural heritage of India. Which provides opportunity for participation, recreation. Fun and positive experience through physical activities by virtue of community interaction.

Unit - 6

Test, Measurement and Evaluation

Main Point :-

-  6.1 Concept of Test, Measurement and Evaluation in Physical Education and Sports
-  6.2 Classification of Test in Physical Education and Sports
-  6.3 Test administration guidelines in Physical Education and Sports.

Q. Concept of test, measurement and evaluation in physical education and sports.

Ans.

6.1 (a) Test: “A test is a tool which is used to evaluate the skills, knowledge, capabilities or aptitudes of an individual or a group.”

Or

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

(b) 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.”

Or

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

(c) Evaluation: “It is a systematic determination of a subject merit, worth and significance, using criteria governed by set of standards.”

Or

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

(d) Importance of test, measurement and evaluation in sports

- To frame the objectives.
- To help the selection of player.
- To help the evaluate the learners.
- To evaluate the teaching programme.
- To know the capacities and abilities of players.
- To study the need of participants.
- Help to conduct the research.
- Help to achieve aims and objectives.
- Help to prepare norms and standards.

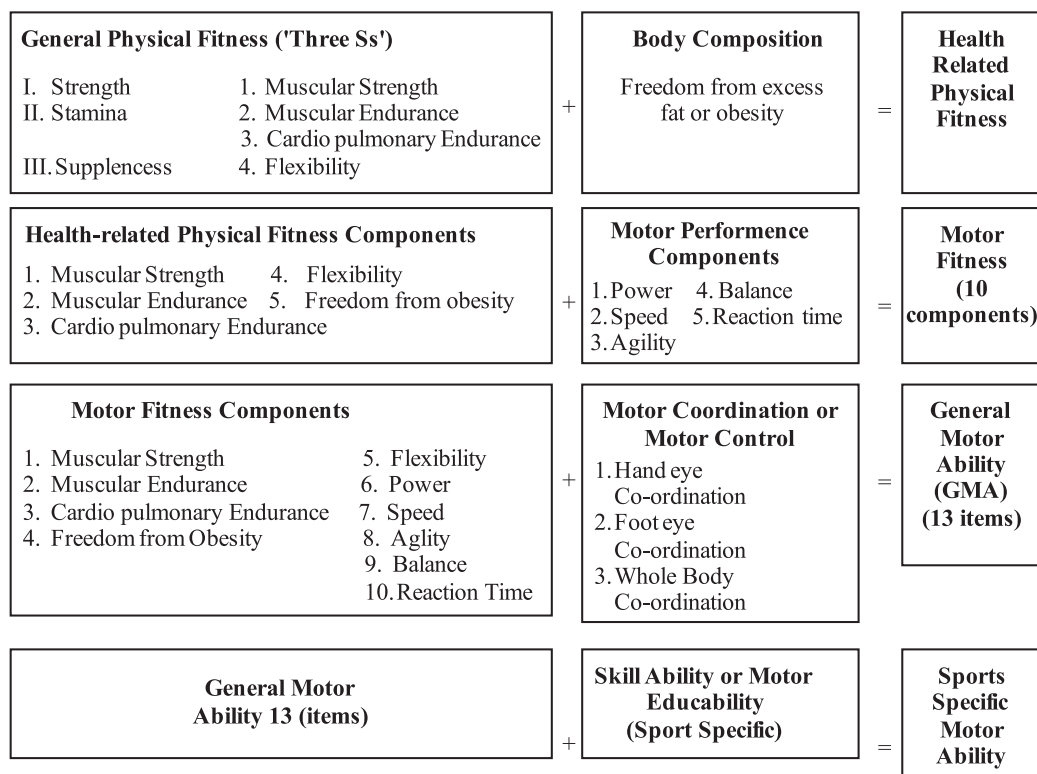
- To help the individual game classification of player.

6.2 Classification of test in physical education and sports.

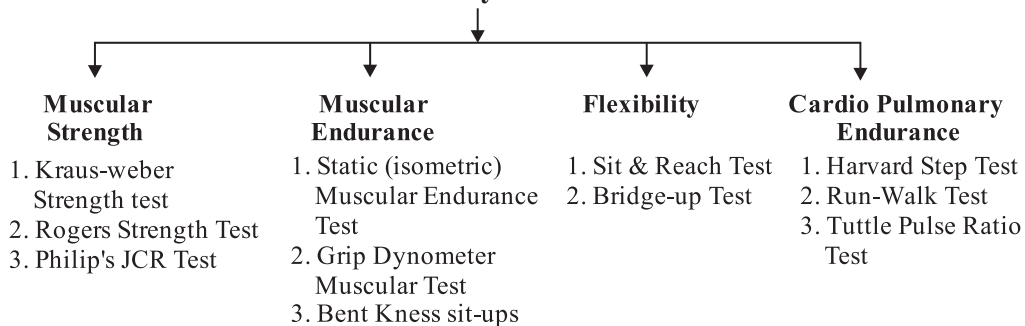


2 Classification of Test in Physical Education and Sports

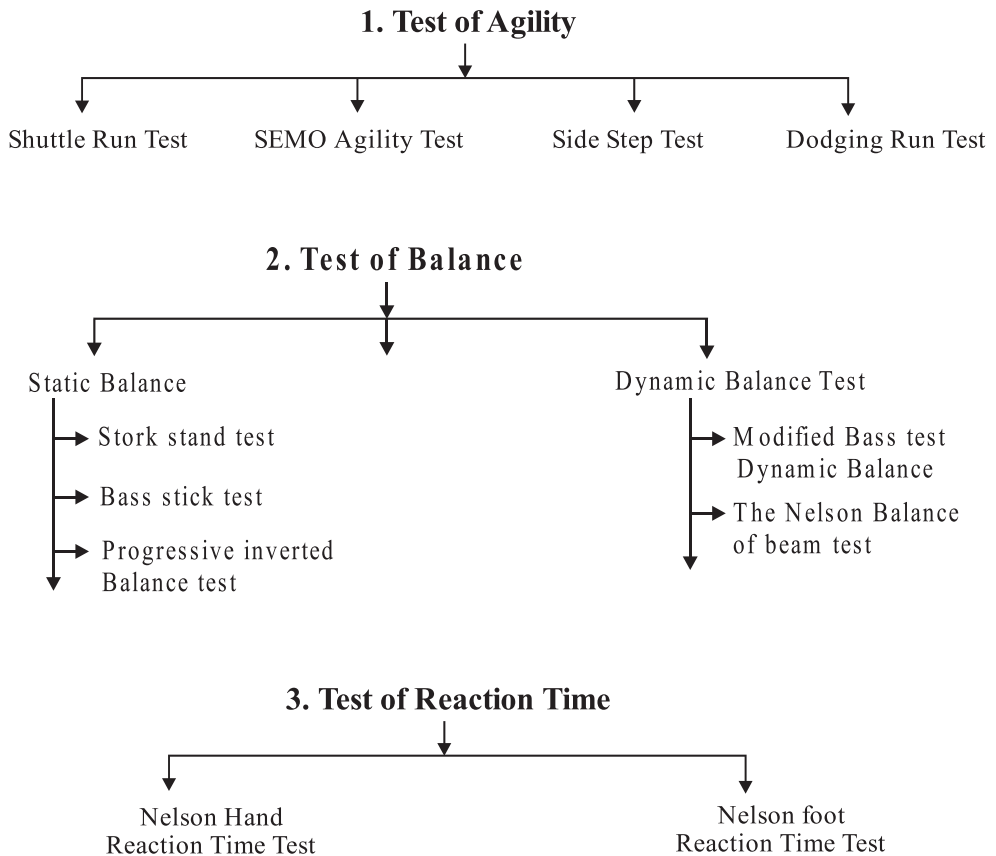
Terms Used in Fitness testing



General Physical Fitness



6.2 (b) Motor Fitness Components.



6.2 (c) Physical and Motor Fitness Tests

The are physical and motor fitness test batteries enlisted below:

1. AAHPER Youth Physical Test.
2. AAHPER Health Related Fitness Test
3. National Physical Efficiency Test
4. Indiana Motor Fitness Test
5. Canadian Home Fitness Test.

6. (d) General Motor Ability (GMA) Testing.

In order to test general motor abilities that can facilitate future performance in specific motor tasks. There are four general motor ability (GMA) test batteries enlisted below:

- (1) Barrow General Motor Ability Test
- (2) Scott Motor Ability Test
- (3) Philips JCR Test
- (4) Newton Motor Ability Test

6.2 (e) Test of Team Game Skills

(a) Basketball Skill Testing

- (1) Johnson Basketball Test
- (2) AAHPERD Basketball Test
- (3) SAI basketball Skill Test

(b) Handball Skill Testing

- (1) Cornish Handball Test

(c) Hockey Skill Testing

- (1) The Schmithals–French field Hockey Skills Test
- (2) Friedel field Hockey Skill Test
- (3) SAI Hockey Skill Test
- (4) Chapman Ball Control Test

(d) Football/Soccer Skill Testing

- (1) McDonald Soccer Skill Test
- (2) Mitchell – McDonald Soccer Test
- (3) SAI Football Test

6.2 (f) Volleyball Skill Testing

- (1) Brady's Volleyball Skill Test.
- (2) North Carolina State University Volleyball Skill Test.

- (3) AAHPER Volleyball Skill Test.
- (4) SAI Volleyball Skill Test.
- (5) Russell – Lange Volleyball Skill Test.
- (6) Brumbach Volleyball Test.

6.2 (g) Testing of Individual Games Skills.

- (1) Archery Skill Testing
 - (i) AAHPER Archery Skill Test.
 - (ii) Mckenzie – Shifflet Archery Test.
- (2) Badminton Skill Testing
 - (i) Lockhart and McPherson Badminton Skill Test.
 - (ii) SAI Badminton Skill Test.
 - (iii) Miller Wall Volly Badminton Test
- (3) Swimming Skill Testing
 - (i) Swimming Skill Test by (Jackson et al) 12 Minute Swim Test
- (4) Tennis Skill Testing
 - (i) Dyer Tennis Skill Test
 - (ii) Hewitt’s Tennis Skill Test
- (5) Athletics Skill Testing
 - (i) Nielsen and Cozens Track Skills Achievement Test
 - (ii) SAI Athletic Skill Test

6.3 Test Administration guidelines in Physical Education and Sports

The General steps for test administration guidelines in physical education and sports have been enlisted below:

- (1) Determination of the purpose of testing and selection.
- (2) Selection of feasible test items to be included in the test on the bases of physical efficiency/fitness components to be tested.
- (3) Acquiring the necessary facilities and equipments needed for the selected test items based upon their feasibility.
- (4) Evaluation and Modifying.
- (5) Finding validity, reliability and objectivity.
- (6) Final preparation of test Instructions, Rules, Procedures, Precautions, Evaluation Criteria.

OBJECTIVES TYPES QUESTIONS

Q.1 A test is a _____ which is used to evaluate the skill, performance and reliability of a task completed by a sports person.

Ans. Tool

Q.2 Measurement is _____ of performance or the information which is required to make judgment.

Ans. Record

Q.3 To study the individual's development _____ of test and measurement.

Ans. Need and importance.

Q.4 _____ is the collection of information of numeric forms.

Ans. Measurement

SHORT TYPE QUESTION

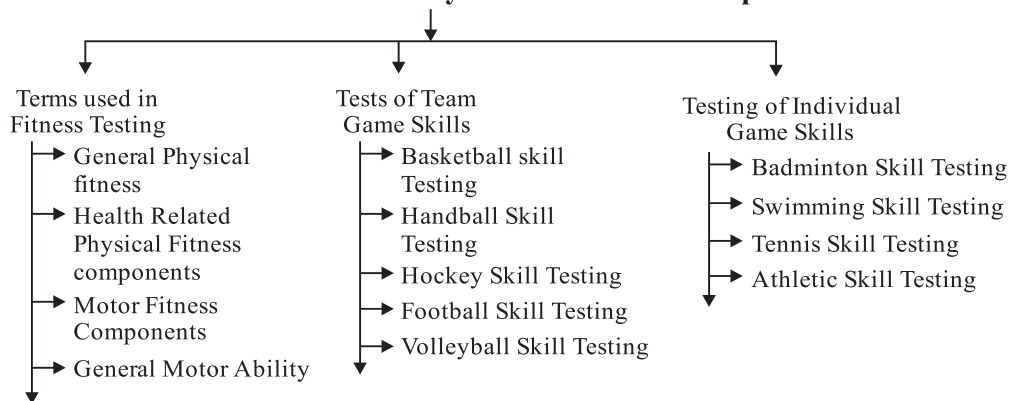
Q.1 Define Evaluation?

Ans. According to Tuckman, "Evaluation is a process where in the pots, processes or outcomes of a programme are examined to see whether they are satisfactory, particularly with reference to the programmes stated objectives our own expectations or our own standards of excellence."

Q.2 Explain the classification of test in physical education and sports?

Ans. Classification of test in physical education and sports

Classification of Test in Physical Education and Sport



LONG ANSWER TYPE QUESTION (5 MARKS EACH)

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

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

- (1) To frame the objectives: Test and measurement helps in setting the target or goals according to need and requirement by adopting the test and measurement techniques the physical education teachers get on accurate idea about the progress made by students.
- (2) To evaluate the learners: In the field physical education and sports test and measurement help in collection of data which further helps in evaluating the learners ability separately. It also help 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 adopts correct methodology upon sportsman so that desired results may be achieved.
- (4) To discover the needs and requirements of participants: Needs of the participants are correctly assessed by scientific approach of test and measurement. It help in knowing where more emphasis is needed so that target may be achieved.





Q.2 Elucidate the procedure of test administration guidelines in physical education and sports.

- Ans.**
- (1) Determination of the purpose of testing and selection.
 - (2) Selection of feasible test items to be included in the test on the basis of physical efficiency/fitness components to be tested.
 - (3) Acquiring the necessary facilities and equipments needed for the selected test items based upon their feasibility.
 - (4) Evaluation and modifying.
 - (5) Finding validity, reliability and objectivity.
 - (6) Final preparation of test instructions, Rules, Procedures Precaution, Evaluation Criteria.

Unit - 7

Fundamentals of Anatomy and Physiology in Sports

Main Point :-

-  7.1 Definition and importance of Anatomy and Physiology in exercise and sports
-  7.2 Functions of skeletal system, classification of bones and Types of joints.
-  7.3 Function and structure of circulatory system and heart
-  7.4 Function and structure of Respiratory system

Importance of Anatomy, Physiology and Kinesology

1. Anatomy

It is a branch of science which investigates organs, bones, structure and cells that exist in animals and human beings.

Importance

- It is helpful in selection of sports.
- It is helpful in preparation of training programme.
- Anatomy provides the knowledge of various organs.
- It is helpful in prevention of sports injuries.
- It is helpful in sports injuries related rehabilitation programme.
- It is also helpful in increase sports achievements.

2. Physiology

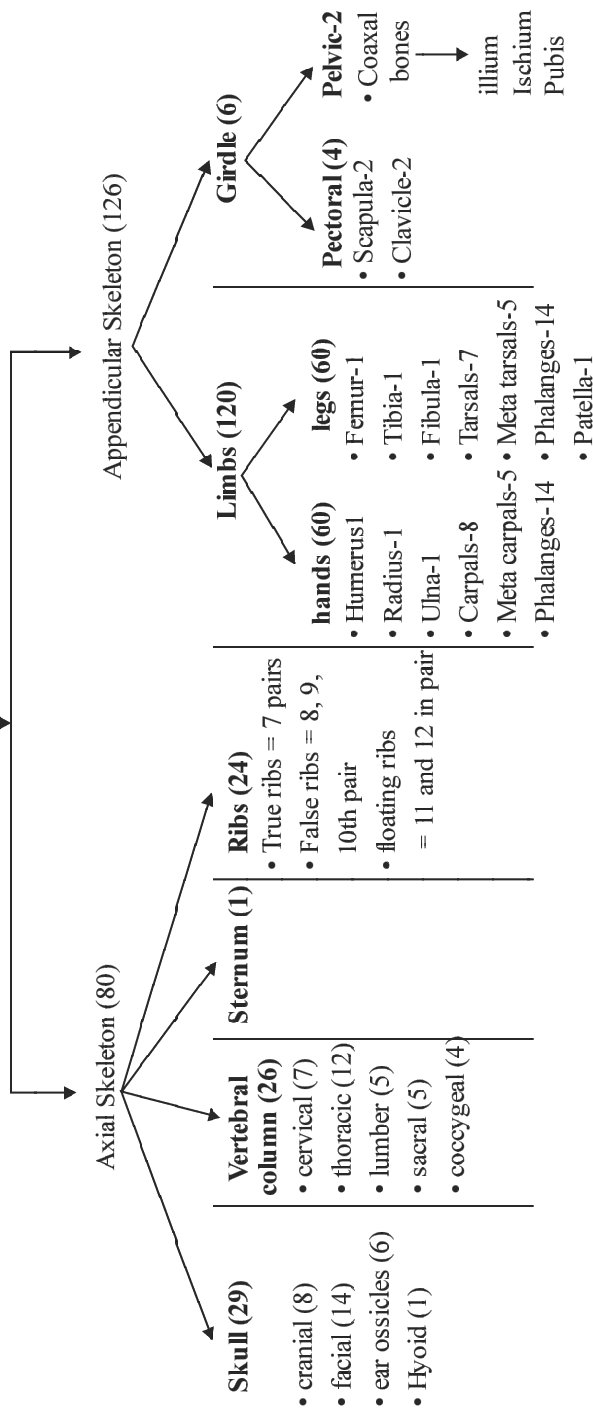
It is a branch of science which deals in the mechanism of living body either animals, plants or human body.

Importance

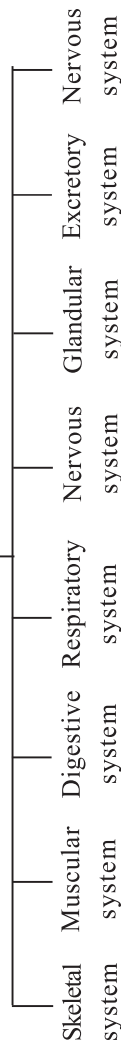
- Helpful to know about chemical changes deserving exercise.
- Helpful to know the anatomical/physiological differences among male and female.
- Helpful in providing first aid to sports person.
- Helpful in physical fitness development.
- Helpful in sports massage.
- Giving knowledge about environmental effects on sports person.

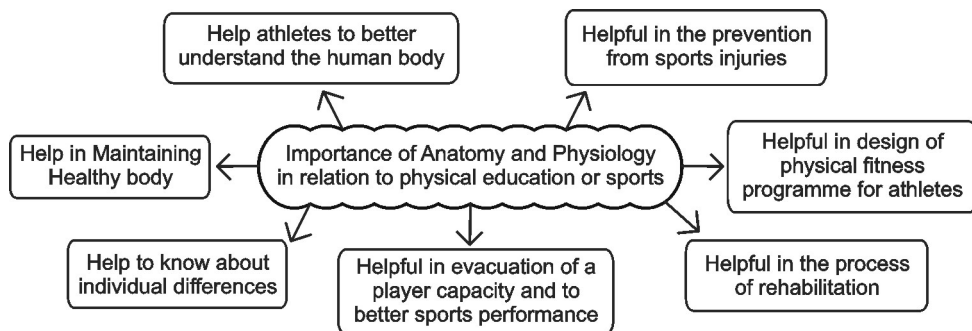
SKELETON SYSTEM OF HUMAN BODY

Total No. of Bones in Adults (206)



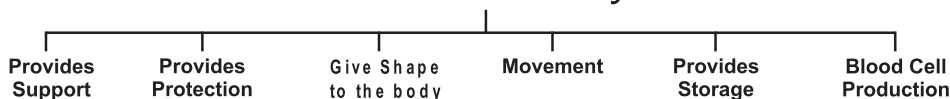
Main System of Human Body



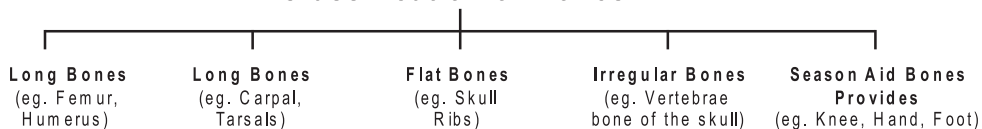


7.2 Skeleton System: This is the bony frame work of body consisting of numbers of bones. Total bones in human body are 206.

Functions of skeleton system



Classification of Bones

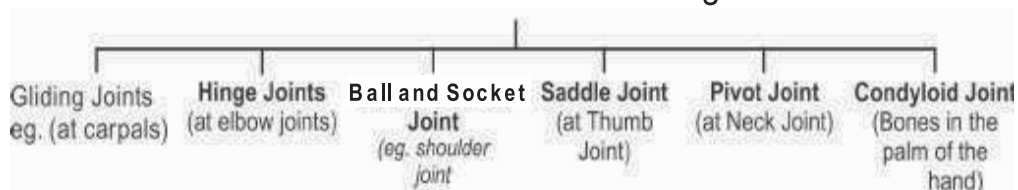


Types of Joints

1. Immovable Joints or fibrous joints These joints are fixed and do not move e.g.. Skull Joint
2. Slightly Movable Joints: or cartilaginous joints The movement of such joints is very limited e.g.. Inter vertebral joints
3. Freely Movable Joints: or synovial joints Such joints are freely movable

Freely moveable

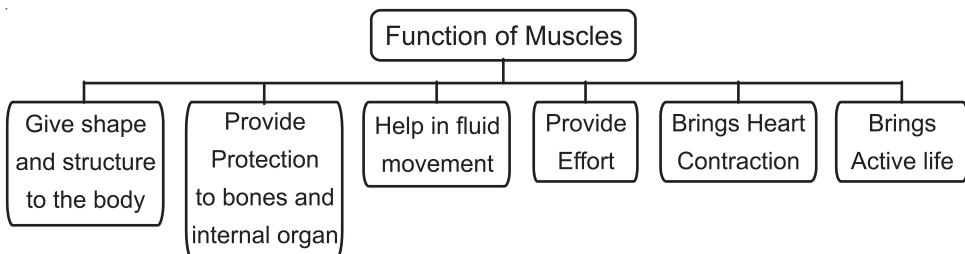
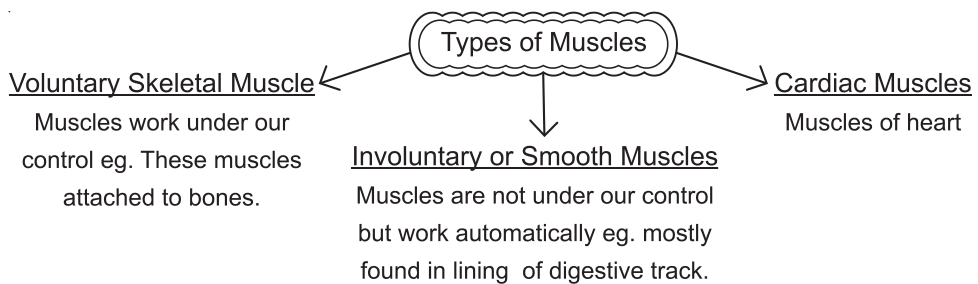
Joints are divided into six categories



7.3 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.

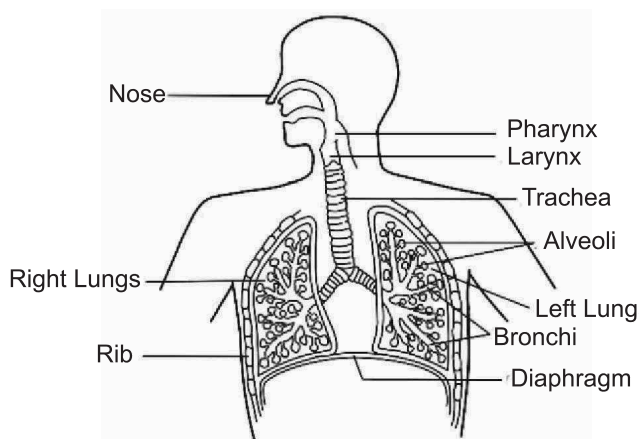
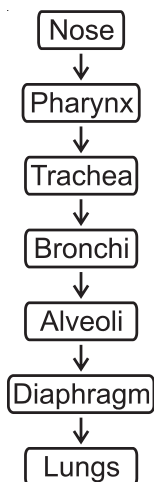
1. **Excitability**—Excitability is the ability of a muscle to activate. If the excitability of the muscle is greater, its force, velocity and endurance will also be greater.
2. **Contractibility**—Contractibility is the ability of the muscle to shorten forcibly when it is simulated adequately. The muscle changes its shape 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 stretched, then beyond their resting length when relaxed. If muscle tissue could not stretch, 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 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.

7.4 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

Inspiration : Internal Inter Coastal Muscles

Experation : External Internal Inter Coastal Muscles

2. Internal or Tissues Respiration

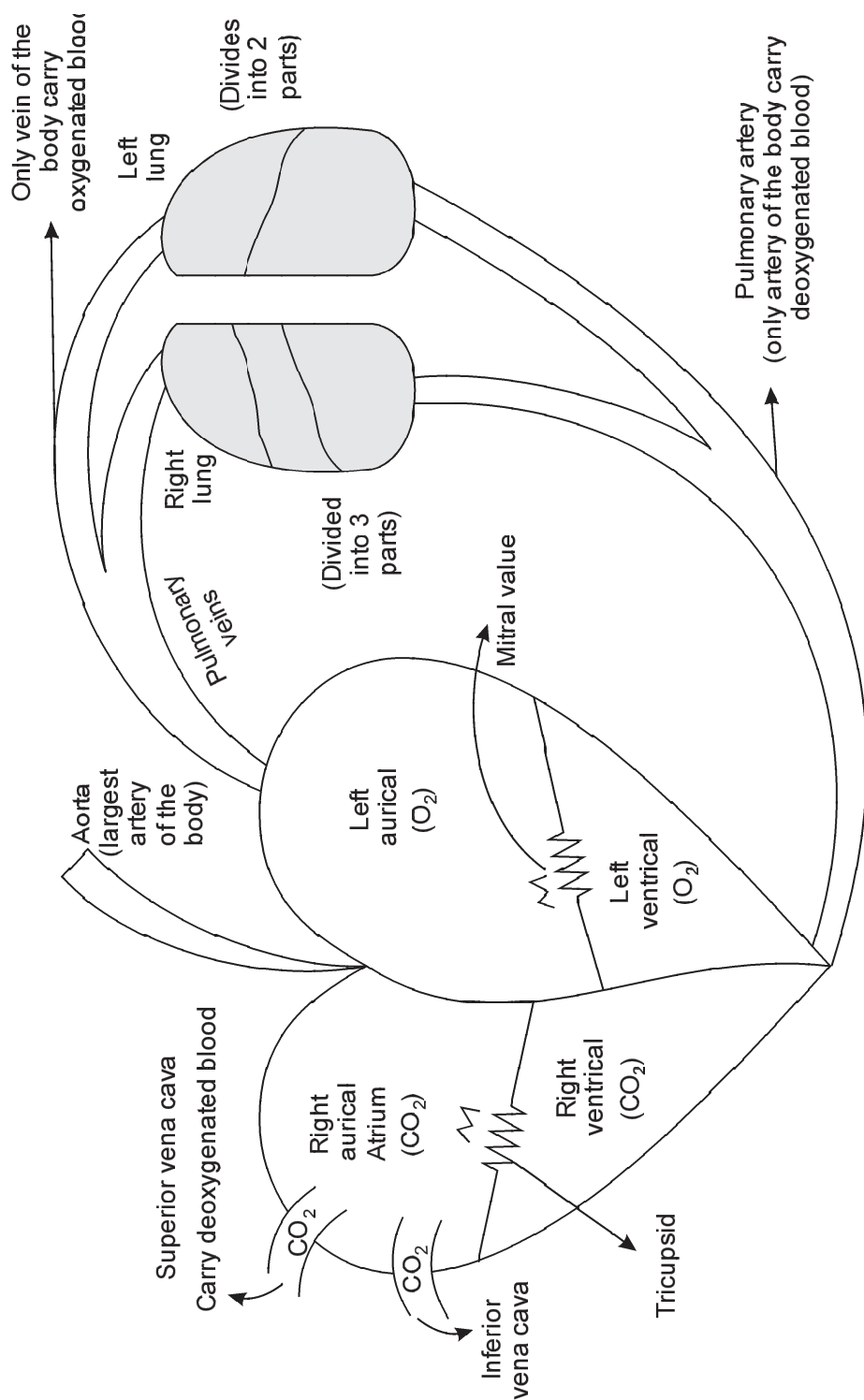
Functions of Respiratory System

- To provide oxygen to blood
- Removal of waste products from the body e.g.. CO_2
- Maintain body temperature
- It affects circulation of blood
- Air sacs : actual exchange of gases take place here.

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)

Structure of heart and Introduction of circularly system



Important point related to heart

- **Weight of heart adult:** female – 250gms.
male – 275gms.
- **Main Function:** pump/circulate blood in the blood.
- **Heart shape:** hollow cone shaped muscular organ.
- **Structure of heart:**
 - It has four chambers.
 - Septum divides it into left and right side.
 - The upper two chambers called auricles and lower chambers are ventricles.
 - Aorta is the largest artery of our body which connect to the left ventricle of heart.
- **Function of heart:**
 - Systematic circulation Aorta to superior vena cava inferior vena cava.
 - Pulmonary circulation– right auricle to left ventricle.
 - Coronary circulation– coronary artery to coronary veins. Blood circulation that gives energy to heart for function.
- **Muscles of heart:**
 - Outer layer – pericardium
 - Middle layer – myocardium
 - Inner layer – endocardium

(Anatomical muscles of heart actually perform the contraction of heart.)

Classification of Arteries



Veins : Veins are blood vessels that return blood to the heart.

Capillaries : Exchange of material takes 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 \times 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.

Q.1. 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.2. Fast twitch fibres are of which colour—

- | | |
|------------------|-----------------|
| (a) white colour | (b) red colour |
| (c) blue colour | (d) skin colour |

Ans. (a) white colour

Q.3. 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.4. 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.5. 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.6. Static stability is important in—

- (a) shooting
- (b) football
- (c) volleyball
- (d) Judo

Ans. (a) shooting

Q.7. 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.8. 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.

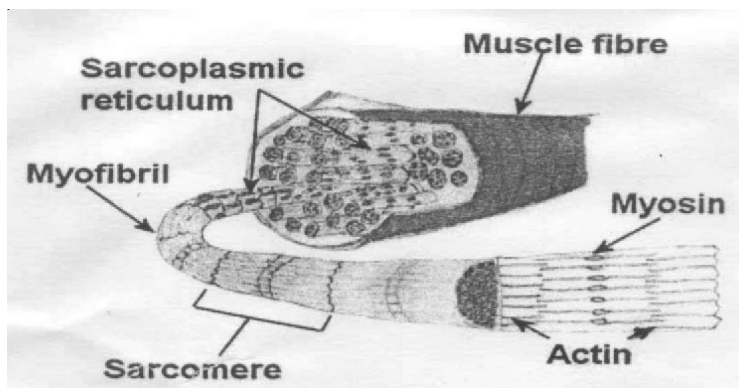
Ans. (c) stance of a golfer

SHORT ANSWER TYPE (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 dizziness 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 main functions 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 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 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.



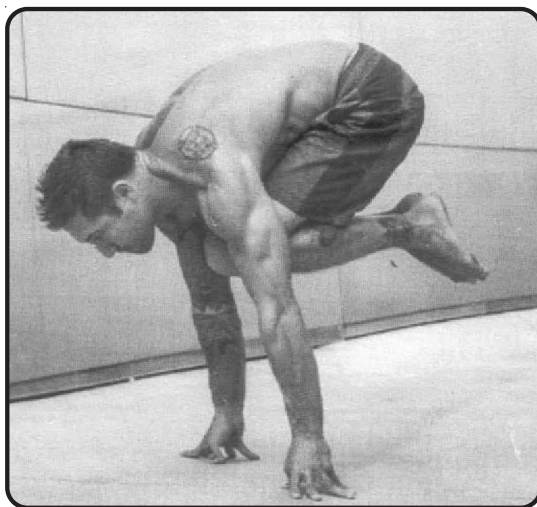
Dynamic equilibrium.

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 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 Centre of Gravity. 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?

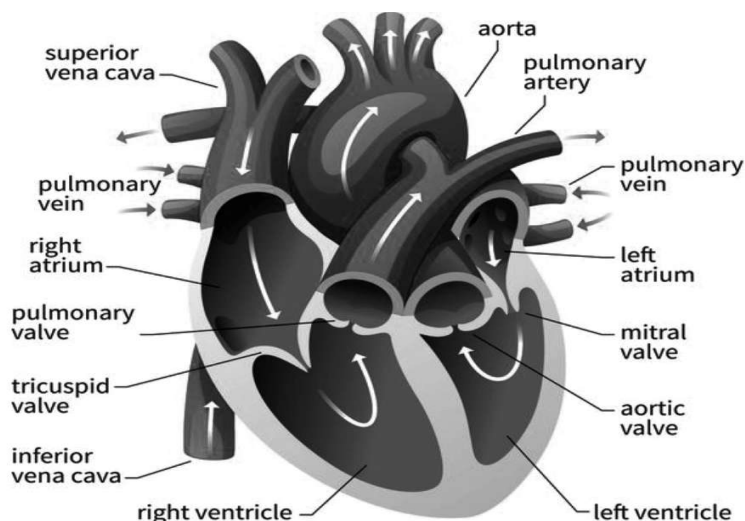
Ans. Main functions of skeletal system are given below.

- (i) **Shape and structure** : The boney framework gives human being its shape and structure like tall or small, thin or short.
- (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-third 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.

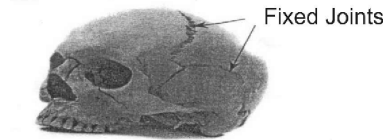
Valves of the Heart

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.

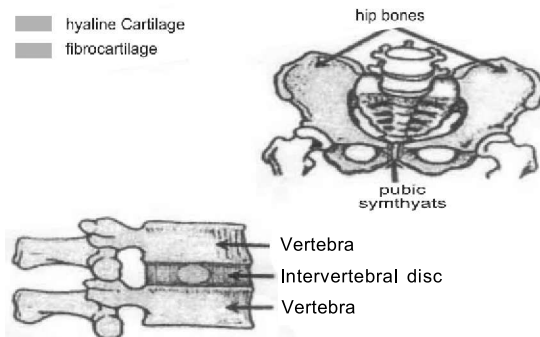
Ans. Following are the different types of joints,

- (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.

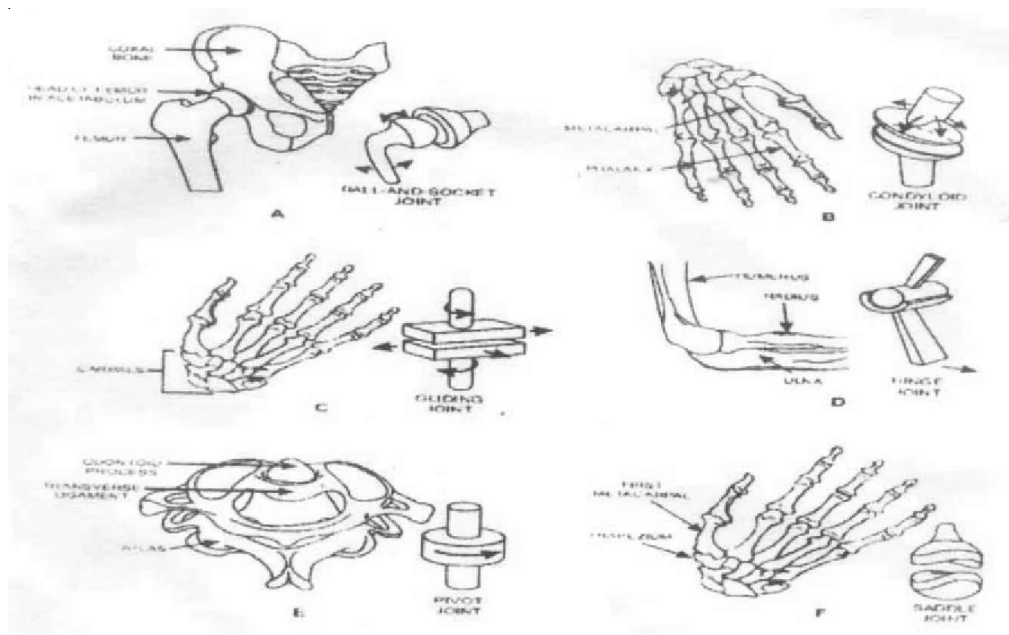


- (iii) **Freely movable or synovial joints.**

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 bones allows only gliding movements, as in the wrist and the ankle.

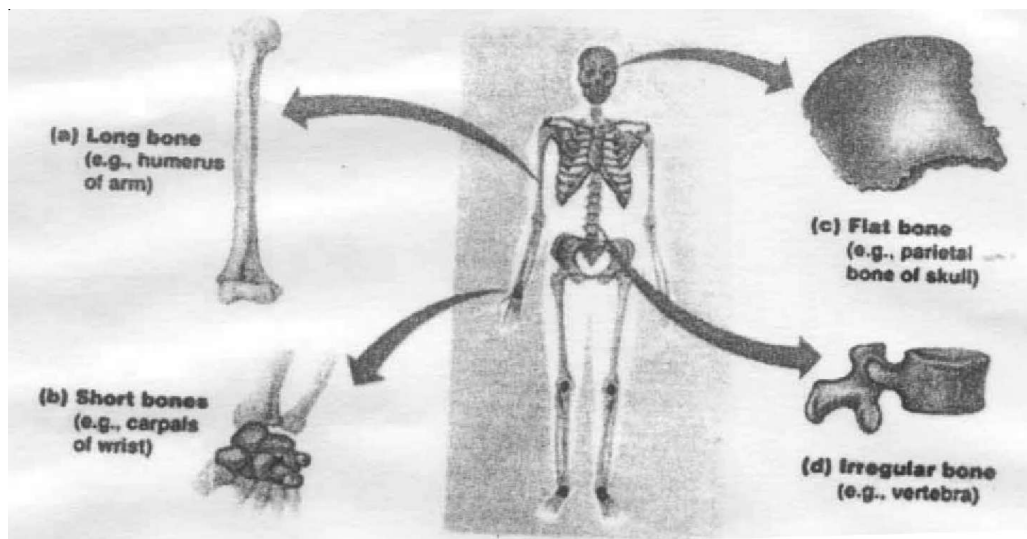


Q5. Write in detail about classification of bones.

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.

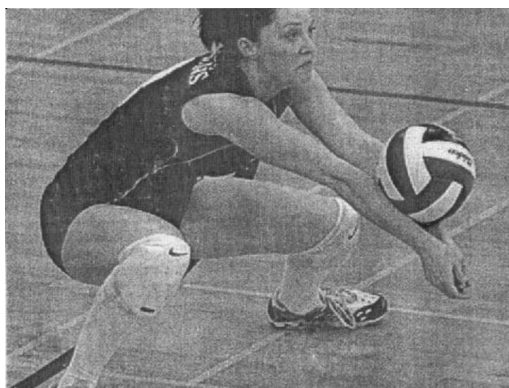
Ans. Study of anatomy and physiology plays very important role in the field of sports because of following reasons.

- (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 Centre of Gravity 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 - 8

Fundamental of Kinesiology and Biomechanics in Sports

Main Point :-

-  8.1 Definition and importance of Kinesiology and Bio-mechanics in sports
-  8.2 Principles of Bio-mechanics
-  8.3 Types of body movements: Flexion, Extension, Abduction, Adduction, Rotation, Circumduction, Supination and Pronation.
- 8.5 Axis and planes : concept and its application in body movements

Kinesiology

The branch of science which deals with human movement, performance and function of the body in particular position according to his surrounding's.

Importance

- Help us to study the body in rest and motion.
- How scientific Principle help to improve performance.
- Help us to gain top performance in competition period.
- Help us to overcome with fatigue and injury.
- Help us to prepare training programme.
- Help us to prepare modern grounds and sports equipments.

Bio-mechanics

Bio-mechanics is the science that examine the internal and external forces acting on a human body and the effects produced by these forces.

Importance

- Contribute to the high quality of performance.
- To find out faults limiting the performance.
- Help us to develop new equipments.
- Help us to learn new physical skills.
- Coping the champions.
- Help us to develop new technique/skills.

8.2 Principles of bio-mechanics

The bio-mechanical Principle's of motion relates to linear motion, velocity, speed, acceleration and momentum.

There are four major factors:

- Stability
- Maximum effort
- Linear motion
- Angular motion

Elements of bio-mechanics

1. Statics

Studying systems that are in equilibrium either at rest or moving at a constant velocity.

2. Dynamics

Studying system that are in motion with acceleration and deceleration.

3. Kinematics

Describing the effect of forces on a system, motion pattern including linear and angular changes in velocity over line position, displacement, velocity and acceleration are studied.

4. Kinetics

Studying what causes motion, the forces and moments at work.

8.3 Types of body movement

1. **Flexion** : When the angle between the two bones attached to the joint decreases.
2. **Extension** : Opposite of flexion. When the angle between the two bones increases.
3. **Abduction** : The movement laterally away from the midline or centre of your body.
4. **Adduction** : The movement towards the midline or centre of your body.
5. **Rotation** : Referred to internal and external. Internal rotation refers to rotation towards the axis of body. External refer to rotation away from centre of body, generally upto 180° .
6. **Circumduction**: The movement of body region in a circular mover to 360° .
7. **Supination** : The standard Anatomical position of the palm or sole in facing Anteriorly.
8. **Pronation** : The standard Anatomical position of the Palm or Sole is facing posteriorly.

8.4 Planes and Axis: Concept and its application in body movements

In anatomical position, human movement takes motion in a plane and around an axis. To explain movement, the body can be viewed as having a series of imaginary slices/glass running through it.

Anatomical position: The anatomical position is the point of references for all movements.

- The human body standing erect.
- Face facing forward.
- Arms by the sides.
- Palms facing forward.
- Legs straight.
- Feet flat on the floor.

Planes

The Anatomical position is further standardized by dividing the body into these anatomical planes.

- A plane is an imaginary flat surface passing through the body which divides the surface.
- The surface at which the movement takes place is called plane.
- Sagittal (Medial) plane.
- Frontal (Coronal) plane.
- Transverse (Horizontal) plane.

1. Sagittal plane

The sagittal is a vertical plane that divides the body into right and left side.

Movement along this plane tends to be forward or backward, like walking, running or somersault.

2. Frontal plane

The frontal plane is also a vertical plane but divide the body into front and back.

Movement along this plane could include star jump or cartwheels.

3. Transverse plane

The transverse plane is a horizontal plane that divides the body into upper and lower halves. Movement along this plane includes an ice skating spin.

Axis

- The human body is also divided into anatomical axis.
- Axis of rotation is an imaginary line/point that passes through a joint or the body to describe the movement
- All the movements rotate around one of the axis.
- Surface at which movement takes place is called axis.
- Horizontal/Frontal (Medio-lateral) axis.
- Sagittal axis (Antero-posterior) axis
- Longitudinal axis (Vertical axis).

1. Horizontal axis

- Runs from side to side
- Perpendicular to sagittal plane
- Typically – Flexion/Extension

2. Sagittal axis

- Runs from front to back
- Perpendicular to the coronal plane
- Abduction/adduction movements

3. Longitudinal axis

- Runs straight through the top of the head down b/w the feet
- Perpendicular to the transverse plane.
- Rotation type of movement

Examples of Planes, Motion and Axis in Motion/Movements

Plane	Motion	Axis	Examples
Frontal	<ul style="list-style-type: none"> • Abduction, side flexion • Inversion/Eversion 	Sagittal	<ul style="list-style-type: none"> • Star jump • Side bending
Transverse	<ul style="list-style-type: none"> • Int Rotation/Ext Rotation • Horizontal flexion • Horizontal Extension • Supination • Pronation 	Vertical	<ul style="list-style-type: none"> • Throwing • Baseball swing • Golf swing
Sagittal	<ul style="list-style-type: none"> • Flexion • Extension 	Frontal	<ul style="list-style-type: none"> • Walking • Squatting • Overhead pass

Key Points :

8.1 Meaning and Importance of Biomechanics

Meaning of Biomechanics:

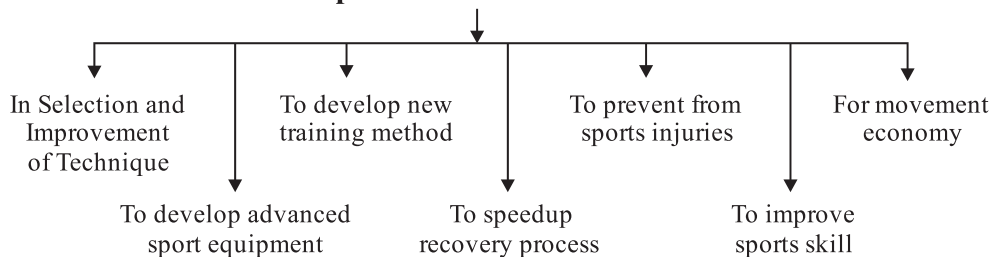
Bio + Mechanics

Bio → Living organism

Mechanics → Branch of Physical sciences which deals with, forces acting on a body in static condition or in moving condition.

Biomechanics: is the study of forces & their effects on human being is moving or in static condition.

Importance of Biomechanics



OBJECTIVE TYPE QUESTIONS

Q.1 Which is not the Importance of Biomechanics

- (a) Improvement of Technique
- (b) To understand the structure of Movement and effect of forces on the movement
- (c) To understand Physiology of human body
- (d) Improvement of sport Equipments

Ans. (c) To understand Physiology of human body

Q.2 Biomechanics Deals with.

- (a) Muscles involved in Movement
- (b) Effect of force on Different Movements done by human body
- (c) To understand the physiology of the body
- (d) To understand Time & Distance concept of Various Movements

LONG ANSWER TYPE QUESTION (5 MARKS)

Q.1 What is Biomechanics? How it helps in the field of sports & games.

(1 + 4 = 5)

Ans. Bio :→ living organism

Mechanics : Branch of Physics. Which deals with effect of force on the object

Bio Mechanics is branch of Science which deals with effect of forces acting on a living organism in moving condition or in Stationary condition. Biomechanics helps in the field of sports in the following way.

- 1. Improvement of Technique:** Biomechanics helps to improve technique. It determine how the technique should be executed to get best result.
Example: Shifting from orthodox to discusput Technique in shotput
- 2. Improvement of Equipment:** It helps to Improve equipment According to nature & safety of the game for example to increase the thickness of mat for high jump
- 3. Improvement in Training method:** It helps to develop new Training method to get better result, for example Development of Isotonic method to develop strength.

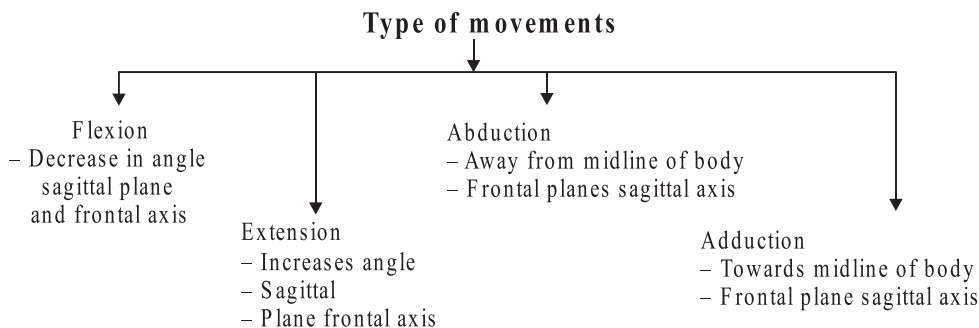
4. **Development of Skill:** It helps to develop skill of the sports. Example:
Development in the skill of fielding in cricket.

QUESTION (3 MARKS)

- Q.1 What do you understand by word Biomechanics? Write any two importance of biomechanics. 1 + 2 = 3
- Q.2 Biomechanics helps to improve technique skill & equipment of sports? Explain with suitable examples.

QUESTION (5 MARKS)

- Q.1 What do you under understand by Biomechanics? Explain its importance with four suitable examples
- Q.2 What is Biomechanics how it helps to promote sports & games.
- 8.2 Types of Movements (flexion, Extension, Abduction, Adduction)



QUESTION TYPES/MCQS (1 MARK)

- Q.1 Match the following.

- | | |
|---------------|------------------------------------|
| (a) Flexion | (i) increase in Angle |
| (b) Extension | (ii) Away from Mid line of body |
| (c) Abduction | (iii) Towards the Mid line of body |
| (d) Adduction | (iv) Decrease in angle |
1. a-iv, b-i, c-iii, d-ii 2. c-ii, d-iii, a-i, b-iv
3. a-iv, b-i, c-ii, d-iii 4. C-i, d-iv, a- iii, b-ii

Ans. (2) c-ii, d-iii, a-i, b-iv

Q.2 Bending of Elbow when our hand is going toward our chest is

- | | |
|---------------|---------------|
| (a) Flexion | (b) Extension |
| (c) Abduction | (d) Adduction |

Ans. (a) Flexion

Q.3 Opening of hand sidewise when our hand is moving away from body is example of

- | | |
|---------------|---------------|
| (a) Abduction | (c) Adduction |
| (c) Flexion | (d) Extension |

Ans. (a) Abduction

LONG SHORT ANSWER TYPE QUESTION (5 MARK)

Q.1. Discuss the Abduction, Adduction, flexion & extension with suitable examples in detail? Name the Movements which occurs in legpress exercise?

4 + 1 = 5

Ans. (1) Abduction: It is that Movement in which

- moving body part away from the midline of body
- It always occurs in frontal plane & sagittal axis.

Example: Moving of hand in sidewise direction i.e. hand going away from body.

(2) Adduction: It is that Movement in Which

- Moving part coming towards the midline of body
- It always occurs at frontal plane sagittal axis

Example to bring his hand to Attention position from the hands opening sides ways.

(3) Flexion: It is that movement

- In which the joint on which the movement occurs. There will be decrease in the angle between the bone of that joint
- It always occurs at sagittal plane & frontal axis Example: Bending of Elbow and bending of knee

(4) Extension: It is that movement

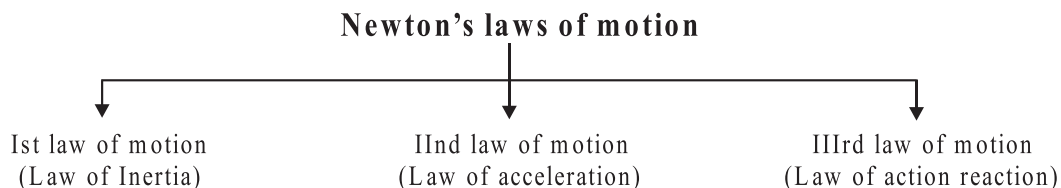
- In which the angle between the bone of that joint on which movement is occurred will increase.
- It always occurs at sagittal plane & frontal axis Example: Straightening of elbow from bending position
 - Straightening of knee from bending position in leg press exercise
 - In leg press exercise flexion of knee joint and extension of knee joint take place.

QUESTIONS (3 MARKS)

- Q.1** What is the Abduction? Give Two suitable examples
- Q.2** What is Flexion? Give two suitable examples.
- Q.3** Differentiate Between Flexion & Extension with suitable examples.
- Q.4** Differentiate between Abduction and Adduction.

QUESTIONS (5 MARKS)

- Q.1** Explain Abduction, Adduction, Flexion & Extension with suitable examples.
- Q.2** How we can Identify the Abduction, Adduction, Flexion & extension movements is various joints of our body? Explain with examples.
- 8.3** Newton's Laws of motion and their application in sports.



MCQ– OBJECTIVE TYPES QUESTION ANSWER (1 MARKS)

Q.1. Newton's 1st law is also known as

- (a) Law of Action Reaction (b) Law of Inertia
(c) Law of Acceleration (d) Law of velocity

Ans. (c) Law of Acceleration

Q.2. In the long jump take off which law works

- (a) 1st law of newton (b) 1st law of newton
(c) 2nd law of newton (d) Law of conservation of mass.

Ans. (c) 2nd law of newton

Q.1 What are the newton's law of motion? Explain the Application of 1st law of Motion (any two applications) **3 + 2 = 5**

Ans. 1st Law of Motion (Law of Inertia): any object will remain in its position until or unless any external force is applied on it.

1st law of motion (Law of Acceleration): The rate of change of acceleration is directly proportional to the force applied on the object and Inversely proportional to the mass of the object.

2nd law of motion (Law of action and Reaction): There will be equal & opposite reaction to each & every action

Application of 1st Law of motion

Example 1: According to 1st law of motion if we want to produce acceleration in football, then a large force will be required to put on the ball. In the same ratio to which force is applied on the ball, it will accelerate.

Example 2: Landing of high jump initially done on the sand but with the time change now landing of high jump will be done on the mats as according to 1st law when rate of change of momentum will be done in large time period less force will be produce which will helpful to avoid injury. So according to 1st law landing on the mats is more favourable for high jumper to avoid injury.

QUESTIONS (3 MARKS)

Q.1 Explain the 1st law of motion with suitable examples. **2 + 1 = 3**

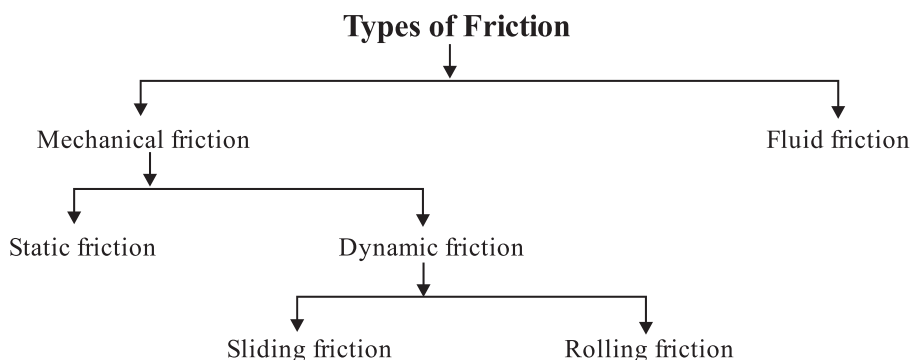
Q.2 Write the 1st law of motion? Give one suitable example. **2 + 1=3**

- Q.3 Explain all the three laws of motion. 1 + 1 + 1=3**
- Q.4 To accelerate any object what condition should be follow according to 1st law of motion. Explain with suitable examples. 2 + 1**

QUESTIONS (5 MARKS)

- Q.1 Explain how newton's law of motion help to enhance sports performance with suitable examples.**
- Q.2 State laws of motion & there applications in the field of sports.**
- 8.4 Friction & Sports.**

Friction: is a force that develops when the surfaces of two objects comes in contact to each other & there will be relative motion between these objects or tends to do relative motion between these two object. Friction force always act in opposite direction to the movement.



OBJECTIVE TYPES QUESTION ANSWER (1 MARKS)

- Q.1 The force which oppose the relative motion between the surfaces of two object is known as**
- | | |
|----------------------|-------------------------|
| (a) Frictional force | (b) Gravitational force |
| (c) Applied force | (d) Tension force |

Ans. (a) Frictional force

- Q.2 The force produced when the surfaces of two objects comes in contact with each other & tends to move but there is no relative motion between them is known as**

- (a) Static friction (b) Sliding friction
(c) Rolling friction (d) Fluid friction

Ans. (a) Static friction

SHORT ANSWER TYPE QUESTIONS (5 MARKS)

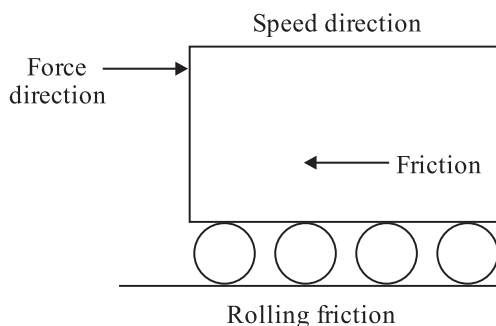
Q.1 What is Friction? Discuss various types of Friction.

Ans. Friction is the force that combats relative motion between the two surfaces that comes in contact. Friction always acts in the opposite direction of the applied force. Type of frictions:

Static friction: The opposite force that comes into play when one body is actually not moving over the surface of another body.

Dynamic friction are two types.

Rolling friction: The oppsing force that comes into play when body is actually rolling over the surface of another body. For example, hockey/cricket ball is hit



Sliding Friction: The opposite force that comes into play when one body is actually slide over the surface of other body for example sliding on the field of cricket by a fielder.

LONG ANSWER TYPE QUESTIONS (5 MARKS)

Q.1 Differentiate between advantage & disadvantage of friction in the field of sports.

Ans. Friction is usually called necessary evil. It means it is essential in the life and we can not do any work without it.

Advantages of friction

- (a) Keeps the object at position by friction, the objects can be placed at position and shaped
- (b) Helps to move: Frictional forces helps to move the object by friction. it help in running, walking, with friction of feet/shoes on the surface to speed. Frictional force helpss to move the object in the speed. For example: Spikes are used by the athletes to run fast.
- (c) Hold or grip an object: with the help of friction the ridgers and our palm enable us to grab and hold object. For example– In badminton the players use grip to hold it.
- (d) Produce heat: The law of conservation of energy states that the amount of energy remain constant.

Disadvantages of friction

- (a) Wear and tear of object:
Due to friction, there is wear and tear of objects.
Lubrication is used to allow the part to move easier, moreover, prevents wear and tear.
- (b) Wastage of Energy : Excess of friction means extra energy, thus energy is being wasted.
- (c) Slow down the speed: In the roller Skating, Rolling Shoes and smooth surface are used to minimize friction.
- (d) Makes movement difficult:
Friction can make the job more difficult when one has to move the object. Excess friction can make it difficult

QUESTIONS (3 MARKS)

Q.1 What do you understand by friction? Explain its types

Q.2 Explain dynamic friction with suitable examples

Q.3 What is the difference among static friction, kinetic friction & fluid friction.

QUESTIONS (3 MARKS)

Q.1 How friction is helpful in sports give 5 suitable examples.

Q.2 What is friction? Explain its role in sports.

MCQ–OBJECTIVE TYPES QUESTION ANSWER

Q.1 Match the following (1 Marks)

- | | |
|----------------------------------|--------------------------|
| (a) Abduction | (i) Decreasing in Angle |
| (b) Newton's 1 st law | (ii) Frictional force |
| (d) Force That opposes Movement | (iii) Away from midline |
| (d) Flexion | (iv) Law of Acceleration |

- (a) a–iii, b–iv, c–ii, d–i
(b) a–iv, b–iii, c–ii, d–i
(c) a–iv, b–iii, c–i, d–ii
(d) a–ii, d–iv, b–iii, c–i

Q.2 Match the following marks

- | | |
|-------------------------|---------------------------------------|
| (a) Mechanical friction | (i) Increased in angle |
| (b) Law of Inertia | (ii) Object as solid comes in contact |
| (c) Takeoff high jump | (iii) 3 rd law of motion |
| (d) Extension | (iv) Things remain in its position |
- (a) a–ii, b–iv, c–iii, d–ii (b) a–iv, b–ii, c–iii, d–i
(c) a–iv, b–ii, c–i, d–iii (d) a–iii, b–ii, c–i, d–iv

Q.3 What do you understand by Biomechanics. Explain the flexion with two suitable examples?

$$1 + 1 + 1 = 3$$

Q.4 Differentiate between flexion & Extension with examples.

$$1\frac{1}{2} + 1\frac{1}{2} = 3$$

Q.5 Differentiate between Abduction & Adduction with suitable examples

1/4 + 1/4 = 3

Q.6 Explain newton's 3rd law of motion with two suitable examples from the field of sports.

1 + 2 = 3

Q.7 Enlist the names of newton's laws of motion & explain any one of them with suitable examples.

1+2 = 3

Q.8 What is biomechanics? Explain extension, Abduction and Adduction movements?

1+4 = 5

Q.9 Explain the two newton's laws of motion? Write any four importance of 2nd law of motion

3 + 2 = 5




Q.10 What is friction? Explain advantages & disadvantages of friction in sports.

1+4 = 5

Unit - 9

Psychology and Sports

Main Point :-

-  9.1 Definition and Importance of Psychology in Physical Education & Sports.
-  9.2 Adolescent problems and their Management
-  9.3 Team Cohesion and Sports

Definition and Importance of Psychology in Physical Education and Sports

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.

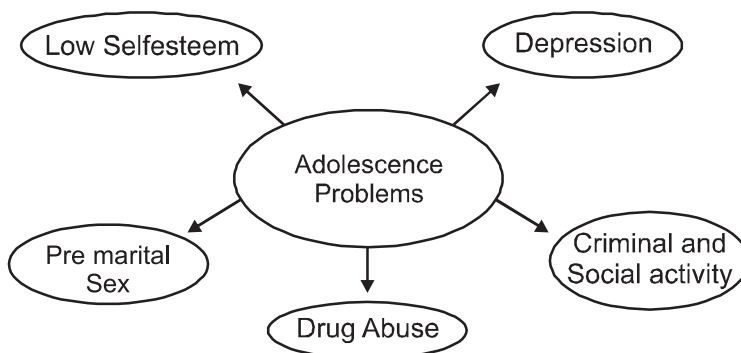
9.1. (c) Importance of sports psychology

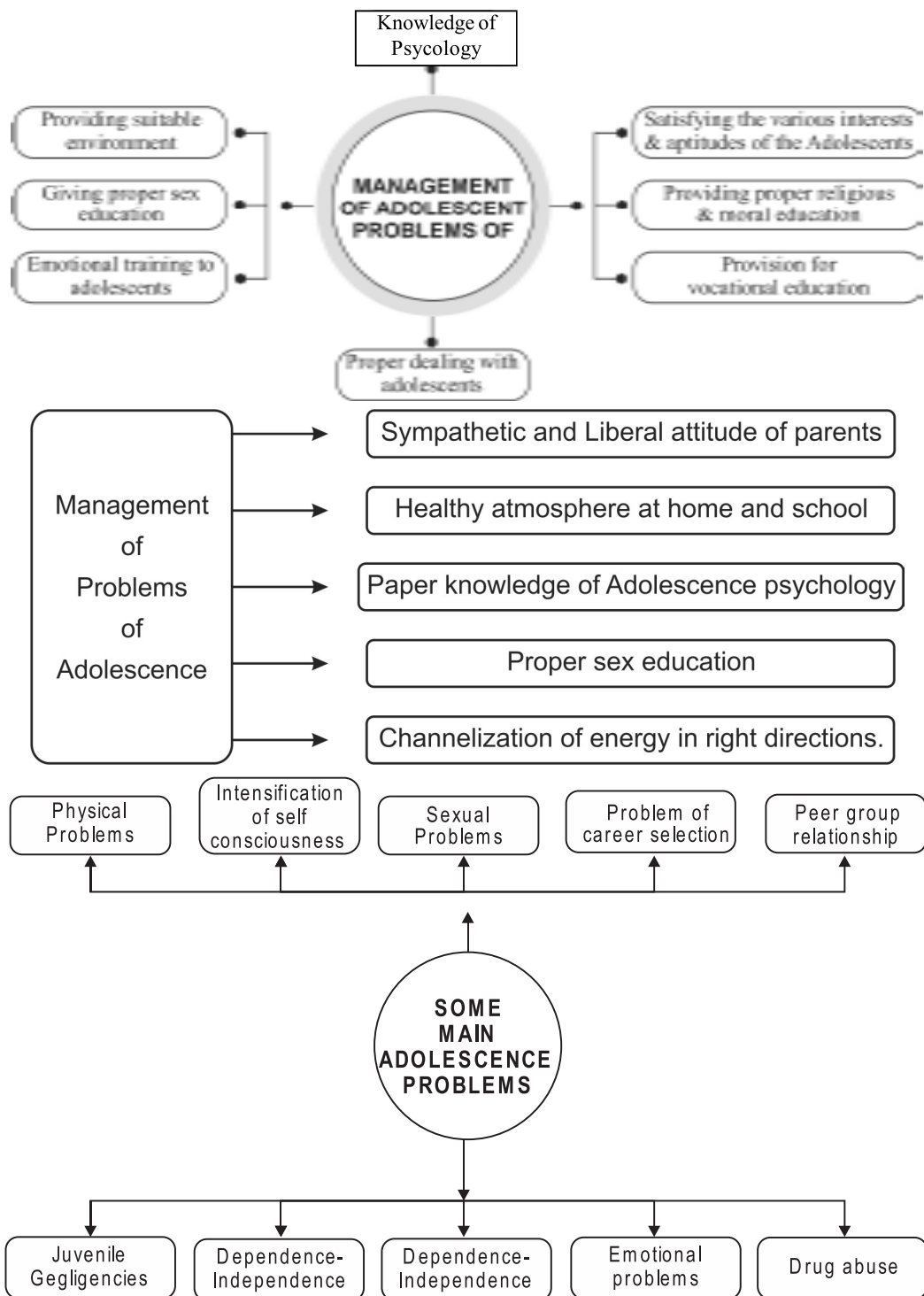


Adolescent problems and their Management.

9.2. Adolescence, Problems of Adolescence and Management of Problems of Adolescents

Adolescence : Adolescence is the period of change from childhood to adulthood





9.3 Team Cohesion and Sports

Team Cohesion– “A dynamic process reflected in the tendency for a group to stick together and remain united in the pursuit of goals and objectives”

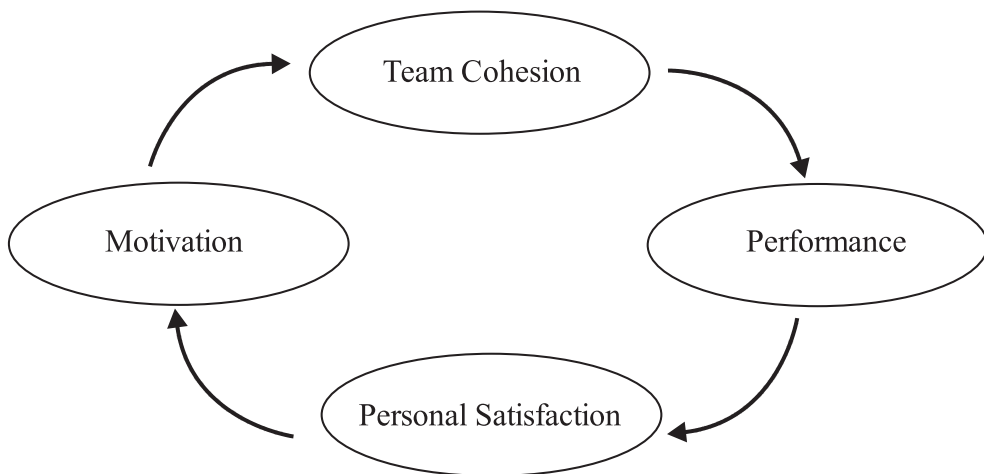
(carron, 1982)

“Team Cohesiveness can be defined as a bond that pulls people towards membership in a particular group and resists separation from that group”.

9.3.1 Importance of Team Cohesion in Sports

Team cohesion is becoming more and more important in any activities where performance is the main purpose. In group sports, like, high group cohesion is considered to be very helpful and it leads to better performance.

1. Team cohesion is useful as it can both improve performance and motivation of a team.
2. Building team cohesion for success.
3. Encourage open line of communication.
4. Make sure all athletes know their role on the team.
5. Develop a team mission.
6. Work to create a team identity that feels different than other team's identity.



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. 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 these 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 physiology 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 in 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. Initiations is a strong characteristic. Children love to play with kids of their own age. The play activities in the age group should not be strenuous because physical capacities develop slowly.
3. **Emotional Development:** Children tend to become demanding and bossy. They are often enthusiastic about like and tend to be outgoing. They may start questioning parents authority. They might show jealousy toward siblings. They are able to understand their own feeling 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 friendship become more important at this time and it is 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.

3. 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) Peer group relationship
- (v) Dependence-independence
- (vi) Problem of career selection
- (vii) Idealism Vs realism
- (viii) Drug abuse
- (ix) Emotional Problems
- (x) Juvenile Negligencies

4. MANAGEMENT OF ADOLESCENT PROBLEMS

- (i) Knowledge of Psychology
- (ii) Providing suitable environment
- (iii) Giving proper sex education

- (iv) Proper dealing with adolescent
- (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.

3. Team Cohesion

A dynamic process which is reflection in the tendency for a group to stick together and remain united in the pursuit of goals and objectives.

3.1 Factors of Team Cohesion

Here are some important factors that have been found to impact group Cohesiveness.

1. Similarity
2. Group openness to new members
3. Trust
4. Stage of the group
5. Past group experience

OBJECTIVE TYPE QUESTIONS (1 MARKS EACH)

Q.1 What is the meaning of 'Psyche'?

- | | |
|-----------------|---------------|
| (a) Soul | (b) behaviour |
| (c) Environment | (d) Science |

Ans. (a) Soul

Q.2 Which of these terms describes the degree to which group members come together as one unit to reach a common goals?

- (a) Group Cohesion
- (b) Group synergy
- (c) Group respect
- (d) Group collaboration

Ans. (a) Group cohesion

Q.3. '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.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. 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.6. 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.7. 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

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 Describe the development characteristics during early childhood.

Ans. Physical characteristics:

It is 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 of the body.

Strength is not well developed

LONG ANSWERTYPE QUESTION (150 WORDS) 5 MARKS

Q.1 Explain any four problems of adolescent

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: Unfortunate 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 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 problem in details:

Ans. 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 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.

Unit - 10

Main Point :-

-  10.1 Concept and principles of sports training
-  10.2 Training load: Over load, adaptation and recovery
-  10.3 Concept of doping and its disadvantages

10.1 Concept and principal of sports training

It is a continuous, scientific and systematic preparation to achieve top form in competition period is known as sports training.

“Sports training is the basic forms of preparation of sportsmen”.— *Matwejew*

Sports training is a planned and controlled process of achieving goals in which the changes of motor performance and behaviour are made through measures of control, methods and organizations.— *Martin*

It can be said that the means with which a sports person is prepared physically, technically intellectually, psychologically and morally is called the sports training.

Characteristics of sports training

- Balanced plan
- Scientific approaches
- Continuous in nature
- Individual in nature
- Performance oriented
- Based on educational behaviour
- Through this confidence will be built in sports person

8.1 (b) Principles of sports Training

- Principle of continuity of training.
- Principle of individual differences.
- Principle of planned /systematic training.
- Principle of increasing of training load.
- Principle of active participation.
- Principle of general and specific training.
- Principle of competitive behaviour.
- Principle of cyclicity (Three cycles)

Macro – 3-12 months

Meso – 3-6 weeks

Micro – 5-10 days

- Principal of adaptability
- Principal of uniformity and differentiation
- Principal of feasibility
- Principal of visual presentation
- Principal of awareness

8.2 Training load: Overload, Adaptation Recovery

Every spoils training consist of physical exercise/movements which cause fatigue. Fatigue is directly a product of training load which help in the process of adaptation. Therefore training load and fatigue are important for any kind of spoils performance. If load remains constant then there will be stagnation in the performance. Training load helps to stimulate the various organs of a body which help to adapt these by giving proper shape to the body parts so that the maximum possible work can be done in a minimum efforts.

Definition of load

1. Amount of work done by an individual body is called as load.
2. Load is the psychological and physiological demand poet on the organism through motor stimuli resulting in improvement and maintenance of higher performance capacity.

TYPE OF LOAD

External Load

- Distance Run
- No of Repetitions
- No of jumps
- Total duration of actively

Internal Load

- Heat Rate
- Lactic acid concentration
- O₂ consumption
- Symptions of fatigue
- consentration/Attention

Factors Affecting Training Load

- **Movement Quality.**
- Types of exercise: General → Specific → Competitive
- Load Intensity: Intensity of stimuli → Density of stimuli
- Load volume: Duration → Frequency

ADAPTATION AND RECOVERY

Adaptation: The process of the body getting accustomed to a particular exercise or training program through repeated exposure.

- Adaptation means to get adjusted or it is some adjustment to load or when a body starts doing work without any efforts.
- Adjustment to load shows that performance gets enhanced as the process of load and recovery goes side by side.
- Adaptation is simply a functional adjustment but if the homeostasis is optimally disturbed repeatedly for a number of days then the human body responds by causing structural and metabolic changes which enable the body to tolerate load more easily. This is called adaptation.

The nature and actual process of adaptation which is psychic and physiological.

The adaptation takes place in all the organs, systems and functions which are affected by the process of tackling the training and competition demands.

Conditions of Adaptation

1. Adaptation process is set in motion only when the load is optimum.
2. The adaptation is result of proper cycle of load and recovery.
3. The adaptation takes place faster in case of beginner, but it takes long time in case of advanced sports persons.
4. There should be a correct proportion between intensity and volume of training load.

5. Higher load is essential for optimum adaptation.

Higher Load – High Adaptation

Medium Load – Medium Adaptation

Low Load – Low Adaptation

6. Reduction in load or break in training breaks the adaptation.
7. For a beginner, the application of new or unfamiliar exercise or load creates super compensation effect.
8. It leads to increase in load tolerance ability.

Recovery in Sports

Recovery aims to restore physiological and psychological processes, so that the athlete can compete or train again at appropriate level.

The rate and quality of recovery is very important for the high performance athlete and that optimal recovery is recovery may provide numerous benefits during repetitive high level training and competition.

Recovery from training and competition is complex and involves numerous factors. It is also typically dependent on the nature of the exercise performed.

Methods to enhance recovery: Recovery is mainly dependent upon which type of exercise or load. Most popular recovery techniques for a sports person:

- Hydrotherapy
- Active recovery
- Stretching
- Massage
- Sleep
- Nutrition
- Compression garments

10.3 Concept of doping and its disadvantages

- (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”.

WADA: World Anti doping Agency

Founded on – 10 Nov 1999

Motto – play true

Founder – Dick Pound

Headquarter – Montreal (Canada)

Affiliation – I.O.C

Language – English, French

NADA: National Anti Doping Agency

Founded on – 24 Nov 2005

Motto – play fair

Headquarter – J.N. Stadium (New Delhi)

Doping

Wada artical 2.1 to 2.8 of the code:

1. Presence of prohibited substance or method.
2. Use or attempt to use a prohibited collection after being notified.
3. Tampering with any part of doping comport board.
4. Possession of a prohibited substance.
5. Trafficking a prohibited substance and method.

Classification of Doping

- Performance enhancing substance.
- Physical method

1. Performance enhancing substance

- (a) **Stimulants:** Enhance alertness increasing heart rate and breatriring rate/ function of brain stimulates the body physically mentally.

Effect	Usage	Example
• Mind in more alert	injection nasal	• Cocaine
• Reduces feeling of fatigue	spray orally	• ephendrine
• More aggressive		• Adrafinil
		• Amphetamines

- (b) **Anabolic steriods:** Growth of muscles and help athlete to train harder and recover rapidly. Boosting muscle power and strength.

Effects	Usage	Examples
• Muscle power growth	Intra muscle	• Drostanolove
• Muscle size increases	Injection	• Metenolone
• Rapid recovery rate	Orally	• Oxandrolone

- (c) **Peptide Hormones:** Substance produces by glands is the body. Carry O₂ and circulate the blood production of RBC/growth of muscles.

Effects	Usage	Examples
• Increases in R.B.C.	By injection	• Erythropoietin
• Muscle growth	orally	• Insulin
• Hormonal in balance		• Human growth hormones

- (d) **Beta-Beta Agonists:** Treat asthma relax muscles/increases respiratory function.

Effects	Usage	Examples
• Increases O ₂ in blood.	Inhale orally	• Albuterol
• open air passage.		• Berodilator
• Rapid recovery		• Clenbuterol

- (e) **Narcotics:** Reduces or eliminates pain from injuries. Reduces anxiety which further increases the risk of injury.

Effects	Usage	Examples
• Reduces pain	By injection	• Morphine
• Improves stamina	orally	• Heroin
• Reduces anxiety	inhaling	• pethidine

- (f) **Diuretics:** None performance enhancing drug but used in sports to remove fluids (water) reduces body weight.

Effects	Usage	Examples
• Rapid weight loss	Orally	• Dexamethasone
• Remove water from the body	injection	• Furosemide
• Evade anti doping test		• Canrenone

- (g) **Glucocorticosteroids:** Relieve fatigue and pain give more tolerance/continuous efforts.

(h) Cannabinoids: Psycho active chemicals feeling of relaxation.

Examples– Hashis and Marijuna

(i) Blood doping: Artificial O_2 carrier injection Hemoglobin O_2 carrier are chemicals or purified proteins. Which have the ability to carry O_2 . It enhances aerobic capacity.

Autologous

Homologous blood

(j) Gene doping:

- Manipulation of cells and genes to enhance performance.
- Increases physical strength.
- Based on gene therapy– Gene therapy play a vital role in development of musculo-skeletal structure.
- Repair of the injuries of muscles/tendon and ligaments etc.

10.7 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.

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: There 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: 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 realise 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, reduce working efficiency and lose 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 he youth are our country.

Sportsman also takes 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. Other take such drug for fast movement endurance, removal of pain and fatigue.

The civil effects of drugs could be 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 in substance abuse.
- 7.** Involve yourself in different hobbies distract yourself from indulgent in substance abuse.
- 8.** Talk to your family and good friend who is distracting you.
- 9. Medication :** Medicine also help with counseling gives better results.

OBJECTIVE TYPE QUESTIONS (MARKS EACH)

Q.1. “Talking of prohibited or banned substances is called _____”

- (a) Steriods
- (b) Alochal
- (c) Doping
- (d) Autologous doping

Ans. (c) Doping

Q.2. Which is a short term activity carried out prior to any severe activity?

- (a) Skill
- (b) Technique
- (c) Limbering down
- (d) Warming-up

Ans. (d) Warming-up

Q.3. 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

Q.4. How many types of warming-up?

- (a) 3
- (b) 4
- (c) 10
- (d) 2

Ans. (c) 2

SHORT ANSWERS QUESTION FOR 3 MARKS (60 WORDS)

Q.1 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.2 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.3 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.4 Explain the principles of sports training ?

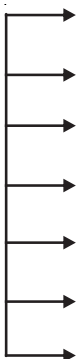
Ans. To perform physical activities and sports if we want to remain healthy and fit for longer duration, there are certain principles we have to follow. They are as under :

- (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.5 Make a list of performance enhancing substances and describe any two?

Ans. 

- Stimulants
- Anabolic Steroids
- Di-Uretics
- Peptide Hormones
- Narcotics
- Beta-2 Agonists
- Cannabinoids

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.6 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.7 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.

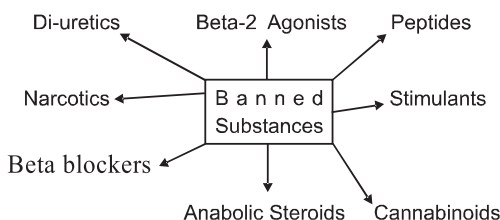
Ans. There are a number of sports activities and each activity requires a set of skills. Owing to many characteristics of skill, it is difficult to classify. Generally there are the following skills:

- (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 those 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

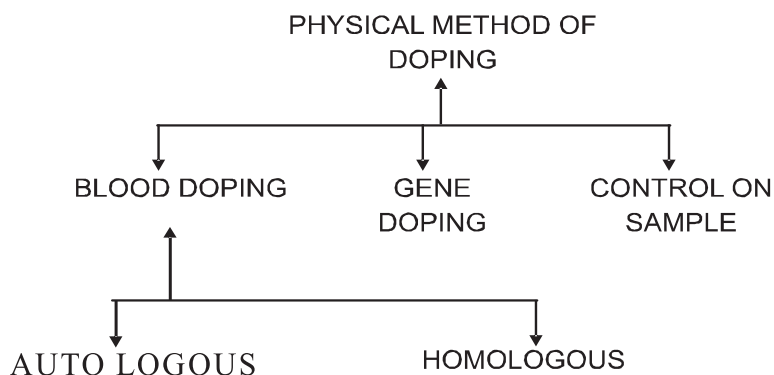
1. Cold hands, drowsiness
2. Headache, vomiting etc.
3. May cause insomnia and depression.

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.

Practice Solved Paper-1
Physical Education (070)
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 mark each and their answer should not exceed approximately 150-200 words.*
-

(SECTION-A)

Q.1 The olympic flag was used for the first time:

- (a) 1948, London
- (b) 1896, Athens
- (c) 1920, Antwerp
- (d) 1936, Berlin

Ans. (c) 1920, Antwerp

Q.2 Physical Education related to:

- (a) Body
- (b) Mind
- (c) Soul
- (d) All of the above

Ans. (d) All of the above

Q.3 Physical Activity termed as:

- (a) Sports
- (b) Gym
- (c) Muscle contraction with result of energy expenditure
- (d) Movement

Ans. (c) Muscle contraction with result of energy expenditure

Q.4 Psychology is the study of:

- (a) Motion
- (b) Behaviour
- (c) Function of organs
- (d) Structure of organs

Ans. (b) Behaviour

Q.5 Following professional are working for children with special need, except:

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

Ans. (a) Principal

Q.6 _____ introduced ashtanga yoga:

- (a) Baba Ramdev
- (b) Ved Vyas
- (c) Mahrishi Patanjali
- (d) All of the above

Ans. (c) Mahrishi Patanjali

Q.7 Man in motion is focus of attention in:

- (a) Kinesiology
- (b) Anatomy
- (c) Physiology
- (d) Psychology

Ans. (a) Kinesiology

Q.8 Given below are the two statements labelled 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). Black colour in olympic flag/symbol represent Africa continent in the context of above two statements which one of the following 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) (A) is true but (R) is false

Q.9 Match list I with list II and select the correct answer from the code given below.

List I

- (i) Artery
- (ii) Trachea
- (iii) Immovable
- (iv) Seasmoid

List II

- 1. Joint
- 2. Circulatory system
- 3. Respiratory system
- 4. Type of bone

Code:

	(i)	(ii)	(iii)	(iv)
(a)	3	4	1	2
(b)	2	3	1	4
(c)	1	4	2	3
(d)	4	3	1	2

Ans. (b)

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

List I

- (i) Decreasing the angle at joint
- (ii) A part coming towards body line
- (iii) Increasing the angle from joint
- (iv) A body part going away from body

List II

- 1. Extension
- 2. Abduction
- 3. Adduction
- 4. Flexion

Code:

	(i)	(ii)	(iii)	(iv)
(a)	2	3	1	4
(b)	4	3	1	2
(c)	4	3	2	1
(d)	1	2	4	3

Ans. (b) 4 3 1 2

Q.11 _____ are imaginary line through middle of body.

- (a) Plane
- (b) Axis
- (c) Doping
- (d) Rotation

Ans. (b) Axis

Q.12 The tool to measure something is:

- (a) Measurement
- (b) Evaluation
- (c) Test
- (d) None of above

Ans. (c) Test

Q.13 Write about olympism three values.

Ans. Excellence, Friendship and respect.

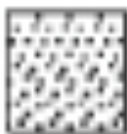
Q.14 Name the chambers from structure of heart.

Ans. Right atrium, right ventricle, left atrium and left ventricle.

Q.16. Below given is the XII class result of a govt. school in physical education



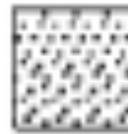
above 95 (77%)



above 90 (5%)



above 85(14%)



above 80(4%)

Figure

on the basis of above data. Answer the following questions.

A. How many students are above 95 marks.

(a) 14%

(b) 77%

(c) 04%

(d) 5%

Ans. (b) 77%

B. Marks related to

(a) Test

(b) Measurement

(c) Evaluation

(d) Administration

Ans. (b) Measurement

Q.17 What are stimulants?

Ans. This group of drugs includes Psychomotor stimulants, sympathomimetic amines and miscellaneous CNS stimulants. They may produce alertness, wakefulness and an increase in the ability to concentrate.

Q.18 What is Asana?

Ans. Asana means the position or posture of body. It also means to sit in an easy posture. Asanas are performed to keep the body flexible, agile and young. What are the Olympic ideals?

The main ideals of olympic games have been to develop physical strength, beauty, discipline, values and virtues by harmonious co-existence. The ancient Greeks were idealists to an extent the philosophy of idealism. The olympic games draw attention of the world towards the importance of physical training.

Q.19 What are the components of wellness?

Ans. These indicators include the following:

- (a) Social wellness
- (b) intellectual wellness
- (c) Physical wellness
- (d) Occupational wellness
- (e) Spiritual

Q.20 What is the aim of physical education?

Ans. Different educators have expressed their views about the aims of physical education. According to J.F. Williams physical education should aim to provide skilled leadership, adequate facilities and ample time for the individuals and the group to participate that are physically whole, mentally stimulating and socially sound.

Q.21 Write the functions of skeletal system.

Ans. The functions of skeletal system are as follows:

- (a) Provides support: The skeletal system provides a frame for body and gives a particular structure, shape to the body.
- (b) Provides protection: The skeletal system provides protection to the vital organs such as the brain, eyes and ears.
- (c) Movement and locomotion: Skeletal system participates in movement and locomotion due to contraction of the muscles.

Q.22 Define adapted physical education write.

Ans. Adapted physical education can be defined as a diversified programme of activities, especially designed for an individual who meets verification criteria for physical, mental or emotional disability and is not able to participate safely and successfully, without modification.

Q.23 What is training?

Ans. Sports training is a planned and controlled process of achieving goals, which change in the motor performance and behaviours through measures that prepare a sports person for higher level of achievements.

Q.24 Define adaptation, Recovery.

Ans. Adaptation refers to the development of teaching, training and coaching skills needed for a well balanced approach in therapeutic, educational and sports environment.

Q.25 Who do you mean by pranayama? What are the stages of pranayama?

Ans. It is the combination of two words 'Prana' and 'Yama' or to make the body

strong and able for spiritual activities through pranayama.

- (a) Purak to fill pranayama is lungs.
- (b) Kumbhaka to stop pranayama in lungs
- (c) Rechaka Breathe out pranayama fastly.

The appropriate control over inhalation and exhalation is pranayama.

Q.26 Name the prohibited substances, Describe any three of them.

- Ans.** (a) Beta Agonists (b) Peptide hormones
(c) Hormones and metabolic Modulator
(d) Diauretic (e) Anabolic steroids
(f) Stimulants (h) Blood doping

Beta 2 Agonists commonly prescribed for the treatment of asthma are prohibited in sports. Endurance athletes who dope themselves with beta 2 agonists to do so in an attempt to enhance their respiratory efficiency.

Q.27 Enlist the components of physical fitness. Explain any three

Ans. The components of physical fitness:

1. Strength
2. Speed
3. Endurance
4. Flexibility
5. Co-ordinative abilities

1. **Speed** : It is the ability to 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. **Endurance** : It is the ability to sustain or continue activity or it is the ability to resist 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.

Q.28 Describe the types of bones?

- Ans.** (a) **Long bone** : Long bones consist of a tubular shaft and two irregular ends.
- (b) **Short bone** : Short bones distributed all over the skeleton as in vertebral column tarsal and carpal bones.

- (c) **Flatbones** : Flat bones are flat in shape with a thin and broad surface area. Scapula, sternum, ribs and skull bones are made of cancellous bone tissues and covered with compact tissue.
- (d) **Irregular bones** : These bones have variable shapes, hence they can be grouped under the above categories.
- (e) **Sesamoid bones** : These bones are embedded with a tendon. These bones are found in places where a tendon passes over a joint as in hands, knees and foot.

Q.29 What is the importance of test and measurement?

- Ans.**
1. **Measuring progress** : In order to judge the fulfilment of the objectives of physical education we should check the progress or improvement of the students.
 2. **Motivation** : The test and measurement act as a means of motivation for
 - (a) Participation in too many competitions : An athlete has to exhibit his best technique during the competition so if he participates in too many competitions, it causes a lot of fatigue.
 - (b) **Insufficient Recovery** : After a day long training programme, an athlete must get sufficient sleep and rest. The stresses of families work, should also be taken into consideration.

Q.30 What is importance of Psychology in physical education and sports?

- Ans.**
- (a) **Helps in preparing** : Athletes psychologically for competition: Sports Psychology mentally prepares the athlete psychologically for competition.
 - (b) **Helps in understanding the Behaviour** : Sports Psychology helps in understanding the behaviour of athletes taking part in competition.
 - (c) **Helps in increasing Physiological capacities** : Sports Psychology plays a significant role increasing physiological capacities like strength, speed and flexibility.
 - (d) **Helps in learning Motor skills** : Sports Psychology plays a significant role in the learning of motor skills, learning of motor skill depends upon the individual's level of readiness.

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 “Let me win, but if I can not win, let me be brave in the attempt” In which event this oath is taken?

- (a) Paralympics
- (b) Special Olympic Bharat
- (c) Deaflympics
- (d) Winter olympics

Ans. (b) Special Olympic Bharat

Q.2 Who is known as father of yoga?

- (a) Patanjali
- (b) Swamiji
- (c) Maharishi
- (d) None of the above

Ans. (a) Patanjali

Q.3 What is the aim of physical Education?

- (a) Physical Development
- (b) Mental Development
- (c) Spiritual Development
- (d) All Round Development

Ans. (d) All Round Development

Q.4 What is the term used for the children with special need?

- (a) Viklang
- (b) Both a and c
- (c) Divyang
- (d) None of the above

Ans. (c) Divyang

Q.5. 'Vallm Kali' the boat race traditional game is famous in which region of India.

- (a) KERALA
- (b) MANIPUR
- (c) RAJASTHAN
- (d) HARYANA

Ans. (a) KERALA

Q.6 This definition of Health

“Health is a state of complete physical mental and social well-being and not merely the absence of disease or injirmity” is given by whome.

- (a) NADA
- (b) UNISCO
- (c) WHO
- (d) TAFISA

Ans. (c) WHO

Q.7 What is the motive to conduct test in the field of sports?

- (a) Motivation
- (b) Goal setting
- (c) Research
- (d) All of the above

Ans. (d) All of the above

Q.8 Which is the longest bone in human body?

- (a) Carpal
- (b) Femur
- (c) Humans
- (d) Stapes

Ans. (b) Femur

Q.9 Increasing the angle between two bones at joint is called _____ .

- (a) Supination
- (b) Flexion
- (c) Extension
- (d) Elevation

Ans. (c) Extension

Q.10 In childhood stage, behaviour is most influenced by _____.

- (a) Community
- (b) School
- (c) Peer group
- (d) Family

Ans. (d) Family

Q.11 Which organisation is responsible for controlling dope at National Level for sports person?

- (a) WADA
- (b) IOC
- (c) NADA
- (d) IOA

Ans. (c) NADA

Q.12 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.13 The ability to overcome resistance is called?

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

Ans. (a) Muscular strength

Q.14 Given below are two statements labelled Assertion (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 above two statements, which one of the following is correct?

- (a) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
- (b) Both (A) and (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. (b) Both (A) and (R) are true, but (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
- (ii) Dhyana
- (iii) Samadhi
- (iv) Pratyahara

- 1. Control of the sense
- 2. Union with the divine
- 3. Breathing exercises
- 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

Q.16 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.17 Which of the longest bone in human body?

- | | |
|------------|-------------|
| (a) Stapes | (b) Femur |
| (c) Carpal | (d) Humerus |

Ans. (b) Femur

Or

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) Masurement | (b) Test |
| (c) Evaluation | (d) Assessment |

Ans. (b) Test

Q.18 Flexibility in the range of motion around a _____

- | | |
|------------|---------------|
| (a) Muscle | (b) Ligaments |
|------------|---------------|

(c) Bone

(d) Joint

Ans. (d) Joint

Or

The word Ecto in Ectomorphs related to

(a) Fat

(b) Muscular

(c) Tall and Slender

(d) None of the above

Ans. (c) Tall and Slender

Q.19 The main objective of traditional games and sports is _____.

(a) WINNING

(b) LOOSING

(c) RECREATON

(d) NONE OF THE ABOVE

Ans. (c) Recreation

Q.20. In 'Shatkrama' how many yogic kriya's are there?

(a) Six

(b) Five

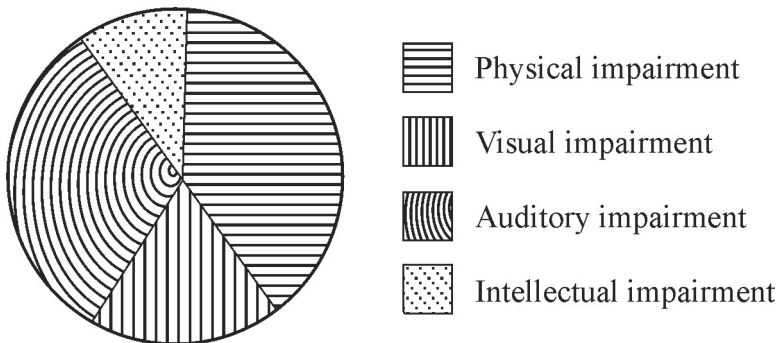
(c) Eight

(d) Ten

(SECTION-B)

Q.21 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.22 A volleyball player did not warm-up before the game. As a result he got shoulder dislocation in Arm ont he 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.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)

Q.27 What are the side effects of prohibited substances?

- Ans.**
1. Increased heart rate and Blood pressure
 2. Sexual dysfunction
 3. Features like male in females
 4. Physical and mental weakness
 5. Complication 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 and aggression

Q.28 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.29 Write a note on special Olympic Bharat?

Ans. This organization was established in 2001, its aim is to increase the participation of differently abled persons in games and sports. Its other objectives were to develop leadership quality and health. This organization organizes sports competition at state level. It also serves talented players and trains 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 the Olympics. 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.30 What is Equilibrium? Also mention its types:

Ans. 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

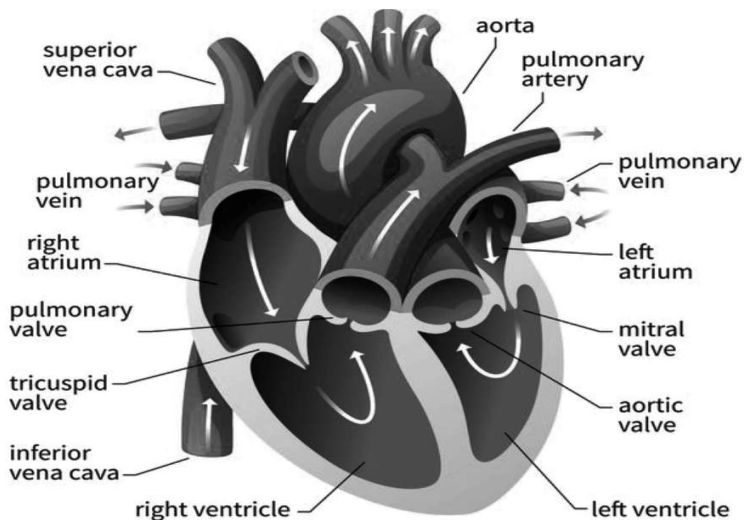
Dynamic Equilibrium : It is the balance of the body during movement.

Static Equilibrium : Dynamic stability is a balance of the body during its rest or stable position.

Q.31 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.32. 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 Centre of Gravity 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.
- (i) 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.
- (ii) **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 Centre of Gravity 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.

Q.33 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.

Q.34 What is Sports Training? Describe any four principles of Sports Training.

Ans. Sports training is along term trainings programme which aims to the improve performance of sportsmen. It makes a sportsman psychologically and physiologically conditioned to exhibit peak sports performance. Sports training is planned process by which a sportman acquires sports perfection. Its main objective is to get a peak performance at a specific time.

The principle of sports training are as following:

1. Principles of continuity
2. Principles of over continuity
3. Principles of Individual differences
4. Principles of general and specific prearation
5. Principles of progression
6. Principles of specificity
7. Principles of variety
8. Principles of warming up and cool down
9. Principles of rest and recovery
10. Warming up and Limbering Down

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)

1. The 2024 olympic games will be held in:

- | | |
|-----------------|-----------|
| (a) Los Angeles | (b) Paris |
| (c) London | (d) Tokyo |

Ans. (b) Paris

2. The Ancient olympic games were organised in the honour of:

- | | |
|--------------|---------------|
| (a) Hercules | (b) Theonosis |
| (c) Poseidon | (d) Zeus |

Ans. (d) Zeus

3. Physical Education is the sum of changes in an individual caused by experience centering motor activity who said this?

- | | |
|-------------------|-----------------------|
| (a) Prince Martin | (b) Charles A Butcher |
| (c) Millions | (d) Cassidy |

Ans. (d) Cassidy

4. How many components of pranayama are:

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

Ans. (c) Five

5. Sesamoid bones are found in:

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

Ans. (c) Patella

6. What is the meaning of Psyche?

- (a) Science
- (b) Behaviour
- (c) Soul
- (d) Environment

Ans. (c) Soul

7. A 19 years old boy fall in the category?

- (a) Late childhood
- (b) Adolsence
- (c) Infancy
- (d) None of these

Ans. (b) Adolsence

8. Which of the physical method of doping is:

- (a) Steroids
- (b) Gene doping
- (c) Stimulants
- (d) None of these

Ans. (b) Gene doping

9. A test is a _____ which is used to evaluate the skill, performance and reliability of a task completed by a sports person.

- (a) Tools
- (b) Measurement
- (c) Selection
- (d) Evaluation

Ans. (a) Tools

10. Most suitable word used for disable person:

- (a) Handicapped
- (b) Retarded
- (c) Divyang
- (d) Blind

Ans. (c) Divyang

11. What is a disorder:

- (a) Disrupts a person's performance
- (b) It is a mental illness
- (c) Lethal gradually
- (d) It is a physical inability

Ans. (a) Disrupts a person's performance

12. Which of the following is adventure sports:

- (a) Trekking
- (b) Paragliding
- (c) Surfing
- (d) All the above

Ans. (d) All the above

13. The first Ancient games was held in:

- (a) 776 BC
- (b) 349 BC
- (c) 676 BC
- (d) 1984

Ans. (a) 776 BC

14. Special olympic Bharat started in:

- (a) 2001
- (b) 1948
- (c) 1995
- (d) 2005

Ans. (a) 2001

15. Which one of the following is not a component of wellness.

- (a) Mental well being
- (b) Maximum strength
- (c) Moral well being
- (d) Emotional well being

Ans. (b) Maximum strength

16. Who is known as the father of modern olympic games?

- (a) Prof. Jigaro Kano
- (b) Sir Dorabji Tata
- (c) Jacu Roggers
- (d) Perrie De Coubertein

Ans. (d) Perrie De Coubertein

17. In childhood, individual's behaviour is most influenced by:

- (a) Community
- (b) School
- (c) Peer group
- (d) Family

Ans. (d) Family

18. Doping is the use of any _____ that might harm the athlete, in a quest to gain an unfair advantage over his/her fellow competition:

Ans. Method or Substance

19. _____ is a bone related disorder.

- (a) Ligaments
- (b) Tendon
- (c) Brain
- (d) Osteoporosis

Ans. (d) Osteoporosis

20. Match the following (2 marks)

- | | |
|---------------------------|--------------------|
| (a) Ball and Socket Joint | (i) Shoulder joint |
| (b) Hinge joint | (ii) Knee joint |
| (c) Pivot joint | (iii) Neck |
| (d) Gliding joint | (iv) Carpals |

- | | | | | |
|-----|------|-------|-------|-------|
| (a) | (i) | (ii) | (iii) | (iv) |
| (b) | (ii) | (i) | (iv) | (iii) |
| (c) | (i) | (iii) | (iv) | (ii) |
| (d) | (iv) | (iii) | (i) | (ii) |

Ans. (a) (i) (ii) (iii) (iv)

21. Match list I with list II and select the correct answer from the codes given below:

List I

List II

(a) Three seconds rules

(i) Football

(b) Throw in

(ii) Hockey

(c) Straight Push

(iii) Basketball

(d) Service

(iv) Baseball

Code: (i) (ii) (iii) (iv)

(a) (i) (ii) (iii) (iv)

(b) (ii) (i) (iv) (iii)

(c) (iii) (i) (ii) (iv)

(d) (i) (ii) (v) (iv)

22. Newton's second law of motion is also known as:

(a) Law of Inertia

(b) Law of action and reaction

(c) Law of Acceleration

(d) Law of gravitation

Ans. (c) Law of Acceleration

23. Which body controls the use of doping in sports in India?

(a) IADA

(b) WADA

(c) NADA

(d) IDTL

Ans. (c) NADA

24. In which of the following three years were the olympic games not held?

- (a) 1916, 1940 and 1954 (b) 1916, 1940 and 1944
(c) 1916, 1920 and 1928 (d) 1940, 1944 and 1948

Ans. (b) 1916, 1940 and 1944

25. Which of the following is an apex body for olympic games?

- (a) OCA (b) IOC
(c) ICC (d) FIFA

Ans. (b) IOC

26. Given below are two statements, one labelled as:

Assertion (A): Physical Education is an integral part of education.

Reason (R): Both Education and Physical Education aim at the total development of personality.

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

Codes:

- (a) (A) is true, but (R) is false (b) (A) is false, but (R) is true
(c) Both (A) and (R) are false (d) Both (A) and (R) are true

Ans. (d) Both (A) and (R) is false

27. Given below are two statements, one labelled as

Assertion (A): Stimulants are considered as drug.

Reason (R): Gene doping is physical method of doping.

In context of the above two statements, 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, but R is false.

(d) A is false, but R is true.

Ans. (b) Both A and R are true, but R is not the correct explanation of A.

28. Given below are two statements one labelled as

Assertion (A): Principle of reversibility tells how adjustments based on individuals should be done.

Reason (R): The overload should not be increased too slowly or too rapidly as it may result in injury or muscle damage.

In context of the above two statements, 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, but R is false.

(d) A is false, but R is true.

Ans. (D) A is false, but R is true

Q.29. Elucidate the classification of bones. Answer: Bones are of various types. According to shape and formation, they are described below:

- 1. Long Bones:** The upper and lower limbs consist of long bones. These bones act as levers in a human body and help in making movement possible. Long bones, such as humerus and femur, consist of a shaft and two extremities each. Long bones are so called only due to their length.
- 2. Short Bones :** Bones which are short in length are called short bones. Carpus and tarsus are examples of this type of bone. These bones are light in weight but are very strong. These bones are made of cancellous body tissues and are covered with compact tissues. Their work is to exert force.

3. **Flat Bones :** Where protection is required in a human body, we can find this type of bones. For example, for the protection of skull, ribs and scapulae bones are found. There is always large surface on flat bones for the attachment of muscles.
4. **Sesamoid Bones :** These bones are found in knee, hand and foot.
5. **Irregular Bones :** These bones have an irregular shape. So, these bones cannot be under any particular heading. A vertebra bone is an example of this type of bone. Some bones of the face of a human body also come under this heading.

Q.30 Explain the objectives of adventure sports. (3 marks)

Ans. The objectives of adventure sports are as follows:

1. **Inculcate adventure:** Adventure sports teaches the participants to accept adventure and attempt the sport with a sportsman spirit.
2. **Bring closer to nature:** As adventure sports are based in the lap of nature, they enable the participant to not only come closer to nature but also understand the challenges nature poses and how to deal with these.
3. **Learning the limits of oneself:** One of the important features of adventure sports is that they push the participant to his physical, mental and psychological limits. This allows the participant to test himself against all odds to recognize his limits. These sports also allow the participant to constant!) challenge their own limits and push them even further.
4. **Good stress buster:** Adventure sports are a good stress buster releasing the stress levels from the participant. They invigorate, refresh and revive the mind and the body of the participant.
5. **Learn about environmental responsibility:** As the participants are brought closer to nature, they are also advised in environmental responsibility. They are taught to preserve the nature and to act according to the well being of nature.
6. **Overall development:** It has been accepted worldwide that the overall development of a child requires not only participation in academics but also regular participation in sports also. Today adventure sports are

equal to sports and are preferred more than regular sports.

7. **Face and effectively deal with challenging situations:** Participation in adventure sports teaches a participant to face and effectively deal with unexpected as well as challenging situations.

Q.31 What are the functions of Skeleton system? (3 marks)

Ans. The skeletal system is a combination of various bones in a human body. There are 213 bones in children and 206 bones in adult human body. All have different shape and size. ‘Ligaments’ help to join the bones together.

Many organs in a human body are very delicate. Thus, bones provide support and protection to these delicate organs. Some bones also act as levers in our body. Bones also provide surfaces for the attachment of the skeletal muscles. To understand properly, the skeleton or skeletal system can be divided into **two** parts, namely:

- (i) Axial Skeleton
- (ii) Appendicular Skeleton

Q.32 What are the safety measures during physical activity and adventure sports? (3 marks)

Ans. Safety Measures during Rock climbing

1. Ensure that you have taken lessons from professional: rock climber. Before climbing, your body should be conditioned and well stretched. This will protect you from sprains and sudden jerks that will impair muscle function
2. Careful selection of the rock climbing path is very important. Choose the path wisely and practically. Also, in case of slip or slide, you need to relax and focus again.
3. All the safety equipment and clothes like elbow pads, knee pads, harness, helmet, safety tape and climbing shoes are in perfect condition and should be checked properly before climbing.
4. Never attempt to jump off the side of the mountain.

Safety Measures during Tracking

1. A tracker should not carry more than 15 kgs weight as more weight means more fatigue. Also, he/she needs a high water and carbohydrate diet as these help stay hydrated.
2. It is essential that the hiker ascends at a slow and regular pace allowing the body to get used to higher altitudes that have lesser oxygen level
3. Always try to get partner to hike with you to make the tracking more safer. Also use the whistle to indicate the danger while tracking.

Safety Measures during River rafting

1. Take a guide with you, this is important as river changes on the daily basis and a professional know the techniques and will help you whenever needed.
2. You need to be physically fit and never consume alcohol during this.
3. Ensure that all the equipment are in proper condition and do check before going for river rafting
4. Never try this at night that during the night the tides are very high which is not safe. Always try this during the daylight.

Safety Measures during Mountaineering

1. Always check the weather forecast before starting the mountaineering.
2. Educate yourself about the wildlife that you might encounter on the way. Be prepared for them and learn to deal with adverse situations.
3. Always take good amount to food and water to avoid health issues. Also take the medicines and first-aid kit for the emergency.
4. Always manage your pace as too much altitude in one day can be risky.

Safety Measures during Surfing

1. Always check the weather and river condition before entering the water and do not surf alone as **you** need a professional to help you with techniques during emergency.

2. Always swim or surf at places patrolled by surf lifesavers or lifeguards.
3. Always read and obey the sign boards.
4. Do not surf after taking the meal or alcohol or drugs. They are very harmful during surfing **Safety Measures during Para Gliding**
5. There should be proper use of equipments like wings, helmet, parachute and a cushioned harness to avoid the risks. Always check these equipments before paragliding.
6. Avoid para gliding if the weather is not clear. There is high chance of risks during rains and snow.
7. Always take advice of experienced Para Gliders about various measurements like launching off, navigating, landing, steering and other safety issues.

Q.33 What do you mean by team cohesion?

Ans. Team Cohesion - “A dynamic process reflected in the tendency for a group to stick together and remain united in the pursuit of goals and objectives”. (Carron, 1982).

Q.34 What is the importance of test, measurement and Evaluation?

Ans. The following reasons show the importance of measurement in physical education and sports:

- (i) **To know about the Progress:** With the help of test, measurement and evaluation physical education teachers can get the appropriate knowledge about the progress of the player/athlete. I don't know about the progress, the trainer may be modified to the training programme in the benefit of the player. Without measurement, the trainer and the player both are in dark about their achievement either in training or in learning.
- (ii) **For knowing the abilities and capacities :** The teachers of physical education can come to know about the abilities and capacities of students with the help of test, measurement and evaluation. This ultimately helps in preparation of a programme.
- (iii) **Motivation of Athlete :** The measurement processes create interest in training programme because it motivates the athlete positively for faithful and sincere participation.

- (iv) **For Classification of Sportspersons :** According to the individual capabilities or capacities, the training load is given. We are also aware that individual differences exist among sportspersons.
- (v) **For Preparation of Effective Planning:** The effective planning can be prepared with the help of test and measurement. Without test and measurement, a good planing can be completely

Q.35 The style is responsible for the lack of ethical value in adolescents Discuss.

Ans. Physical Problems: Boys and girls face many types of personal problems and difficulties due to the external and internal changes in them.

Emotional Problems: The life of an adolescent is full of emotions. Under such emotions, he performs some uphill tasks, which seems to be impossible in the beginning.

Dependence-Independence : This age is considered as a period of stresses, conflicts and strains. At this stage, the adolescent is neither a child nor an adult.

Q.36 Explain the importance and Ideals of Olympic Gaines. (2 marks)

Ans. The Olympic ideals mentioned in Olympic Charter, 1982 are given below:

- (i) To promote the development of those physical and moral qualities which are the basis of sport.
- (ii) To educate young people through sports in a spirit of better understanding between each other and of friendship, thereby helping to build a better and more peaceful world.
- (iii) To spread the Olympic principles throughout the world, thereby creating international goodwill.
- (iv) To bring together the athletes of the world in the great four-yearly sports festival, the Olympic Games.

Objectives of Olympics

The Olympic Games were revived with the following three objectives:

- (i) To develop the personality, character, citizenship qualities and health among the youths.

- (ii) To spread physical education, games and sports all over the world.
- (iii) To promote international understanding peace.
- (iv) ds

Q.36 List down the elements of Yoga and explain any elements of yoga.

(5 marks)

Ans. This lifestyle system is composed of eight linked, yet distinctive practices: Ethical life choices, personal observances, posture practices, breathing exercises, sense withdrawal, concentration practices, meditation, and absorption. The definitions of these eight limbs of yoga are shown in

1. **Yama:** Yama is the first element of Ashtanga yoga. Through the practice of Yama one can abstain from doing things that keep one's mind involved in the inevitable struggle for survival. One can remain away from violence. Yama consists of five moral codes of conduct. According to Maharishi Patanjali. there are five Yama, i.e. Ahimsa or Non-violence, satya or truthfulness, Asteya or Non- stealing. Brahmacharya and Aparigraha.
2. **Niyama:** Niyamas are related to an individual's body and senses. Niyamas are also ethical practices as yamas. There are five Niyamas such as Saucha, Santosh, Tapa, Swadhyaya and Ishwara Pranidhana.
3. **Asana:** Asana means position or posture of the body. It also means to sit in easy posture.
4. **Pranayama:** Pranayama is the control of the process of breathing. The etymology of the word is complex. Prana means vital energy and Ayama means exercise. It means the appropriate control over inhalation and exhalation. Basically there are three constituents of Pranayama, i.e., Puraka (Inhalation). Kumbhaka (Retaining the breath) and Rechaka (Exhalation).
5. **Pratyahara:** Pratyahara is a process of self- control in which an individual is able to exercise control over his senses. Indeed, to control the mind and senses is called pratyahara. In pratyahara. the senses no longer respond to the external objects that hinder mental concentration. So, it leads to the removal from external and internal irritations to reach deep meditation.

6. **Dharana:** Dharana is the concentration of the mind. Generally, it is seen that the mind has a tendency to get scattered but if the scattered mind is brought under control and set to one focal point, concentration is said to be achieved. The focal point can be in the centre of the forehead or navel or a pointed soothing light at a distance. Dharana is the first step towards Samadhi.
7. **Dhyana:** Dhyana is a process of complete constancy of mind. It is a stage prior to Samadhi. Generally, Dhyana remains attached to our life at every point. Whenever we perform any specific task in the family, it is advisable to do that task with Dhyana. But we do not understand its appropriate meaning. In fact, Dhyana is a complete concentration of mind over a period of time without any distraction.
8. **Samadhi:** This term has firstly a cognitive nature. The union of an individual's soul with the Supreme soul is called the Samadhi. Samadhi is also called the checking or destruction of all the impulses of mind. During the stage of Dhyana when the disappearance of self-awareness takes place, the yogi attains the stage of Samadhi. He begins to feel the real truth. He forgets himself completely. He begins to experience the divine pleasure.

Q.38 What are principles of sports training? Explain the benefits of warming up? (5 marks)

- Ans.** (i) **Principle of Continuity:** The practice programme remains continued without any hindrance or barrier under this principle. According to the nature of a game, the duration of practices may be long from a month to years.
- (ii) **Principle of Cyclicity:** Through various training cycles as macro cycle, meso cycle and micro cycle sports training programmes are developed. Macro cycle is the longest cycle of training, whose duration is 3 to 12 months approximately. Meso cycle is a training cycle for medium duration and may be 3 to 6 weeks. Micro cycle is a shortest duration cycle which may be for 3 to 10 days.
- (iii) **Principle of Individual Differences :** Every sportsperson is different due to individual differences, according to this principle. Each sportsperson's response to exercise or load will definitely vary.

- (iv) **Principle of Variety:** Due to a long term process, load and recovery, during training, the athlete and the coach can become bored. So, a successful coach should plan variety in the training programme to maintain the interest and motivation of the athlete. Sometimes, change and variety may be done by changing the nature of exercise, time of the day of the session, training group and the environment.
- (v) **Principle of Proper Rest:** During and after the training, a person should be given proper rest. Periods of recovery are needed to continue progressive loading, without the risk of injury or overtraining. Proper rest will be helpful to remove the fatigue, mental as well as physical.

The importance of warming-up are given below:

- (i) **Increases the Body Temperature:** The body and muscle temperature increases after a proper warming-up. So, it is beneficial for the sportspersons. Research studies show that if the muscles have been slightly warmed-up just before the activity, the performance is improved. Failure to warm-up before vigorous activity may lead to tearing of muscle fibres. In fact, if the muscle is warmed-up, the speed with which the muscle contracts and relaxes and the force of contraction are all increased.
- (ii) **Decreases the Resistance in Muscle Capillaries:** Researches reveal that warming-up decreases the resistance in muscle capillaries and brings the muscles in a state of readiness.
- (iii) **Decreases the Viscosity of Muscles:** The viscosity of muscles is decreased by warming-up. Researches indicate that if a previously inactive muscle is stimulated repeatedly, the first few contractions are often small and irregular and relaxation is incomplete.
- (iv) **Increases the Speed of Nerve Impulses:** Warming-up increases the speed of nerve which improves and sharpens the reaction time of sportspersons. Improvement in reaction time is important to sportspersons in most of the games and sports.
- (v) **Increases the Speed of Oxygen and Fuel Transfer to Tissues:** The speed of oxygen and fuel transfer to tissues are increased by a proper warming-up. It occurs due to the enhancement of blood flow through the muscles by dilating the small blood vessels. This improves the functional condition of muscles by increasing its oxygen supply.

- (vi) **Increases Metabolic Rate**: The metabolic rate, which ultimately improves energy level is increased by warming-up. In fact, the metabolic rate increases due to rise in core temperature. If there is an increase in temperature by 0.5°C , the metabolic rate increases by 7%. A high metabolic rate leads to higher production of energy.
- (vii) **Reduces Blood Lactic Acid**: Research studies indicate that heart-rate and consumption of oxygen are directly related to muscle temperature. Higher the temperature, higher will be the consumption of oxygen and heart-rate and. thus, blood lactic acid is reduced.

Q.39 Explain in details the qualities of good leader. (5 marks)

- Ans.**
- (i) **Awareness**: Awareness is basically the ability of a person to know and a ware of the particular area in which he/she is involved. Self awareness leads to overall success. A leader must have awareness quality so that he can share his experience, ideas with his subordinate to work effectively.
 - (ii) **Instructor**: As a instructor, a leader must know the instructions which he wants his subordinates to follow. He must have a good informal and formal relationship with his subordinates so that the) follow the instructions properly. If a leader is a good instructor, it become easy for him to give instruction and make things happen.
 - (iii) **Trainer**: It is ability to perform at their optimum in competitive situations. A leader as a trainer must take the account of the team and try to achieve the best outcome under any circumstances, he must understand how people learn, know the alternative pathways to insight and possess the skill to built best learning.
 - (iv) **Communicate** : Effective communication plays an important role in professional success. A leader must communicate with his subordinate to know about their ideas thoughts to achieve the goals and objectives. Formal and informal communication between leader and subordinates is important for the organization as well as it helps in increasing morale and motivation of the subordinates.
 - (v) **Motivational skills**: A good leader must have motivational skills, he must motivate the mployees/students with economic as well as non-economic rewards. He must take advice and co-ordinate with the subordinates to achieve the goals and objectives.

- (vi) **Honest:** Honesty is an important virtue, as leaders serve as role models for their subordinates. Honesty refers to different aspects of moral character. It indicates positive and virtuous attributes such as truthfulness, and straightforwardness, integrity,
- (viii) **Positive attitude:** For a leader, his attitude is a mirror for his subordinates. It is very important for the leader to maintain positive attitude.

Q.40. Define physical fitness and wellness. Describe the importance of physical fitness and wellness in detail. (5 Mrks)

Ans: According to Edward Bortz. “Physical fitness implies that the body system are capable for carrying out their activities satisfactorily.”

According to Bruco Balle, “Physical fitness depends on the bio-dynamic potential which is composed of functional and metabolic potentials.”

Physical health is an ability which enriches a person’s ideal way for healthy and balanced livelihood. It one aspect of physical fitness. An individual does not only get physical development, but also gains mental, social and emotional development by this ability so that wellness is considered more than physical capacit) of working. The skill or faculty a man needs to spin out an ideal living is called **physical wellness**.

For leading a happy and well-balanced life, physical fitness, wellness and lifestyle plays an important role. The importance of physical fitness, wellness and lifestyle can be explained in the following ways:

1. **Proper Growth and Development:** For enhancing proper growth and development of an individual to enjoy better life, physical fitness, wellness and lifestyle is important.
2. **Efficient Body Functions:** For efficient body function, physical fitness, wellness and lifestyle is important. This leads to good health and optimum development of the body.
3. **Total Efficiency is Improved:** The importance of physical fitness, wellness and lifestyle can be judged from this fact that the total output of a person with respect to an unfit person increases manifold.
4. **Personality Development:** Physical fitness, wellness and lifestyle helps in improving the personality of a person. It also helps to attain good shape and structure of body and remove postural deformities.

5. **Prevention from various Diseases:** To prevent us from various diseases, physical fitness, wellness and lifestyle is important. It improves immune system and reduces risk of minor ailments.
6. **Delays Fatigue:** To delay fatigue, physical fitness, wellness and lifestyle is important.
7. **Quick Recovery:** For quick recovery after severe activity and after injury and illness, physical fitness, wellness and lifestyle is important.
8. **Better Quality of Work:** The quality of work performed by a person can be judged by his physical fitness, wellness and lifestyle. A physically fit person works in efficient manner which produces better quality of work.

SOLVED QUESTION PAPER
Subject: Physical Education (048)
Class-XI

Time : 3 Hrs.

Max. Marks : 70

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 - (ii) Question 1-12 carry 01 marks each and are multiple choice questions.
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-

Q.1 The ancient olympic games started in:

- (a) 1896 AD
- (b) 394 AD
- (c) 776 BCE
- (d) 776 AD

Ans. (c) 776 BCE

Q.2 'Satya' is the part of:

- (a) Niyam
- (b) Yama
- (c) Dhyan
- (d) Dharna

Ans. (b) Yama

Q.3 Amongst the following which one is the key process in Physical Education?

- (a) Evaluating performance
- (b) Checking competency
- (c) Making effort
- (d) Developing skills

Ans. (d) Developing skills

Q.4 Select the verticals are there in Khelo India programme inauguration

- (a) ten
- (b) eleven
- (c) twelve
- (d) thirteen

Ans. (c) twelve

Q.5 Occupational wellness is related with:

- (a) fitness
- (b) meditation
- (c) environment
- (d) job

Ans. (d) job

Q.6 According to 'WHO', a disability is a:

- (a) Health problem
- (b) Activity limitation
- (c) Interaction between individual and society
- (d) Participation restriction

Ans. (c) Interaction between individual and society

Q.7 The most important area catered to by adopted Physical Education:

- (a) Physical Health
- (b) Mental Health
- (c) Social Health
- (d) Emotional Health

Ans. (a) Physical Health

Q.8 The purpose of yoga is to attain:

- (a) Perfect Health
- (b) Peace of mind
- (c) Stress relief
- (d) Enlightenment or self realization

Ans. (d) Enlightenment or self realization

Q.9 Yama and Niyama are part of:

- (a) Physical Growth
- (b) Charity
- (c) Meditation
- (d) Morality and ethics

Ans. (d) Morality and ethics

Q.10 _____ is a very good kriya to get rid of nasal allergy:

- (a) Vastradhauti
- (b) Dandadhauti
- (c) Neti
- (d) Kapalbhathi

Ans. (c) Neti

Q.11 The study that deals with the structure aspect of human body is known as:

- (a) Anatomy
- (b) Physiology
- (c) Psychology
- (d) Kinesiology

Ans. (a) Anatomy

Q.12 The short bones are generally:

- (a) Sesmoid
- (b) Pattela
- (c) Thin
- (d) Flat

Ans. (d) Flat

Q.13 Trachea is also know as:

- (a) Nose
- (b) Throat
- (c) Windpipe
- (d) Voice

Ans. (c) Windpipe

Q.14 Micro cycle is a training of:

- (a) One week
- (b) 4 to 7 days
- (c) 4 to 6 week
- (d) One year

Ans. (?)

Q.15 The first case of doping in modern olympics came to light in:

- (a) 1904
- (b) 1908
- (c) 1912
- (d) 1916

Ans. (a) 1904

Q.16 _____ are the blood vessels that return blood to the heart:

- (a) Artery
- (b) Vein
- (c) Valve
- (d) Muscles

Ans. (b) Vein

Q.17 _____ is the period of Adolescence:

- (a) 9-12 year
- (b) 18 years onward
- (c) 12 to 18 year
- (d) 60 above

Ans. (c) 12 to 18 year

Q.18 _____ is the principle of sports training:

- (a) over load
- (b) optimum load
- (c) training load
- (d) competition load

Ans. (a) over load

Q.19 What is occupational Therapy?

Ans. Occupational therapy aims to help a person achieve success in their the occupations. it focuses on the main occupations of school (reading, writing fine molar skills etc.) self care (bathing, dressing eating loileting etc.) in play and work.

Q.20 State the objectives of physical Education

- Ans.**
1. Physical development
 2. Mental development
 3. Social development
 4. Emotional development
 5. Development of health
 6. Neuro-muscular coordination (any four)

Q.21 Olympic flag was created in 1913 at the suggestion of baron de coubertin.

Ans. Flag is made of white silk and contains five inter locking rings in five colours representing five continents of the world, America, Europe, Australia, Asia and Africa. The five rings have different colours, yellow, green, red, blue and black. They symbolises cooperation and friendship.

Q.22 Define Wellness and its compnents.

Ans. 1. Wellness is defined as the optimal functioning of body and creative adapting to environment that involves the whole person.
2. Wellness is considered the optimal state of health.

Q.23 What is the importance of biomechanics in Physical Eduction and Sports?

Ans. 1. Biomechanics equipments
2. Helps in improving equipments
3. Helps to prevent injuries
4. It promotes safely

(Explain any three points)

Q.24 Satish is an adolescent boy who used to be studious student and balanced his studies well with his extra curricular activities like football and dance. Ever since he entered 11th grade in his new school he made new friends. To impress his new friends he stated smoking. Some time he missed his classes to smoke. His parents got worried and talked to Satish but he refused to listen to them. Then they approached the school counsellor.

Ans. (i) What is adoescence?

Adolescence is the period through which a growing person makes transition from childhood to maturity.

(ii) Which problem of adolescence does satish seem to be going through?

1. Feeling of importance

2. Lack of stability and adjustment

(iii) State some steps to manages adolescence problems?

1. Parent and teachers should provide the knowledge of psychology.
2. Provide moral education.
3. Provide suitable environment.

Q.25 What is sports training? State the principles of sports training.

Ans. Sports training—Sports training is a planned and controlled process in which for achieving a goal changes in complex sports moter performance ability to act and behaviour are made through measure of content, methods and organisation.

Q.26 Career Options in Physical Education :-

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

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 :-

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).

Q.27 Write sports psychology and its importance

Ans. 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

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

Q.29 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 inclusive 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 disabled 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.30 Explain types of Joints

Ans. 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.

UNSOLVED PRACTICE 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.
-

Q.1 Physical Education is a _____ part of the learning process.

- (a) Compulsory
- (b) Not important
- (c) Normal
- (d) Minimum

Ans. (a) Compulsory

Q.2 What the theme of yoga day 2022.

- (a) Yoga for wellness
- (b) yoga at home and yoga with family
- (c) yoga for well being
- (d) yoga for good health

Ans. (c) yoga for well being

Q.3 Tadasana is also known as the _____.

Ans. Mountain pose/palm tree pose.

Q.4 Olympic flag was hosted for the first time in?

- (a) Berlin
- (b) Paris
- (c) Antwerp
- (d) Amsterdam

Ans. (c) Antwerp

Q.5 Which colour does represent our continent?

- (a) Blue
- (b) Black
- (c) Yellow
- (d) Green

Ans. (c) Yellow

6. When was formed IOA:

- (a) 1930
- (b) 1894
- (c) 1927
- (d) 1992

Ans. (c) 1927

Q.7 Agility can be improved mth:

- (a) Speed
- (b) Coordination
- (c) Balance
- (d) All of above

Ans. (d) All of above

Q.8 Yoga helps to

- (a) Improve concentration
- (b) Cleanse respiration organ
- (c) Reduce tension
- (d) All of the above

Q.9 Which one of the following is not a component of wellness:

- (a) Mental well being
- (b) Maximum strength
- (c) Moral well being
- (d) Emotional well being

Q.10 Ball and socket joint is situated at:

- (a) Shoulder
- (b) Wrist
- (c) Neck
- (d) Knee

Ans. (a) Shoulder

Q.11 Which of the following is not a cognitive disability:

- (a) Dyslexia
- (b) Hyperactivity
- (c) Memory disorder
- (d) Sensory impairment

Ans. (d) Sensory impairment

Q.12 Biomechanics is the study of the _____ of biological system of human.

Ans. Structure and function

13. While walking third law of motion is also known as _____

Ans. Law of Action and Reaction.

Q.14 Measurement is the process of administering a test to obtain a _____ data.

Ans. quantitative

Q.15 Biomechanics is a branch of:

- (a) Biology
- (b) Science
- (c) Kinesiology
- (d) Physics

Ans. (d) Physics

Q.16 Centre of gravity is a point at which the effective weight of a body is _____?

Ans. Centred

Q.17 A _____ is the connection between the surfaces of bones.

Ans. Joint

Q.18 Lever is a mechanical device that produce a turning or rotational movement about an _____.

Ans. Axis

Q.19 _____ is a sport in which participants climb up, down or across a natural rock or artificial rock walls

- (a) Rock climbing
- (b) Cricket
- (c) Tennis

Ans. (a) Rock climbing

Q.20 The programs of _____ are necessary for the development of student and individual

Ans. Physical Education

Q.21 Match the following

List I

- (a) Anabolic steroids
- (b) Cannabinoids
- (c) Alcohol
- (d) Beta-2 Agonists

List II

- (i) Nervous system
- (ii) Endocrinal changes
- (iii) Heart diseases
- (iv) Diabetes

Code:

- | | | | |
|----------|-------|-------|-------|
| (1) | (2) | (3) | (4) |
| (a) (iv) | (i) | (iii) | (ii) |
| (b) (iv) | (ii) | (i) | (iii) |
| (c) (ii) | (iii) | (i) | (iv) |
| (d) (i) | (iv) | (ii) | (iii) |

Ans. (c) (ii) (iii) (i) (iv)

Q.22 What is the full form of “WADA”?

- (a) White Anti-doping Agency
- (b) Wide Anti-doping Academy
- (c) World Anti-doping Agency
- (d) None of the above

Ans. (c) World Anti-doping Agency

23. Given below are two statements, one labelled as:

Assertion (A): The position of centre of mass of body depend upon shape and size of the body.

Reason (R): Centre of mass of a body lies always at the centre of the body.

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

- (a) Assertion (A) is correct, reason (R) is correct, R is correct explanation for assertion.
- (b) A is correct, R is correct, R is not correct explanation for A.
- (c) A is correct, R is incorrect.
- (d) A is incorrect, R is correct.

Ans. (c) A is correct, R is incorrect.

Q.24 Given below are two statements, one labelled as Assertion (AS) and the other labelled as Reason (R).

Assertion (A): Physical Education is an elective discipline.

Reason (R): Physical Education borrows principles from other allied fields.

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.

Q.25 Write short-notes or Khelo India.

Q.26 Differentiate b/w disability and disorder.

Q.27 Explain the importance of physical education programmes in modern India.

Q.28 Define asanas and pranayama? discuss.

- Q.29** Elaborate the procedure of Yoga Nidra. What are the benefits of practicing Yoga Nidra.
- Q.30** Elaborate the short notes on special olympic Bharat.
- Q.31** Briefly explain the objectives of Indian olympic association?
- Q.32** Explain the role of physical education teacher for children with special needs?
- Q.33** How to improve team cohesion in sports.
- Q.34** What is equilibrium? What are the principles of equilibrium in sports?
- Q.35** Explain in detail the steps, benefits and precautions during Sukhasana.
- Q.36** Write the structure and functions of respiratory system?
- Q.37** Explain in detail about modern olympic games?
- Q.38** Explain test administration guidelines in physical education and sports in details.

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Class-XI

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 - (v) Questions 27-30 carry 05 mark 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
- (b) Acceleration ability
- (d) Locomotion ability

Ans. (d)

OR

Flexibility in the range of motion around a _____

(a) Muscle

(c) Ligaments

(b) Bone

(d) Joint

Ans. (d)

Q.4 The word Psycho in Psychology is related to

(a) Behaviour

(b) Soul

(c) Mind

(d) None of the above

Ans. (a)

Q.5 Who started the Olympic movement

(a) Baron Pierre de Coubertin

(b) Sir Ludwig Guttmann

(c) G.D. Sondhi

(d) None of the above

Ans. (a)

Q.6 What is Test?

(a) It is a tool to assess

(b) It is a process involving 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

(c) 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**

- I. Kabaddi
II. Khelo India
III. Khelo India
IV. Khelo India

**List-II
Competition**

1. Maharashtra
2. Delhi
3. Haryana
4. Assam

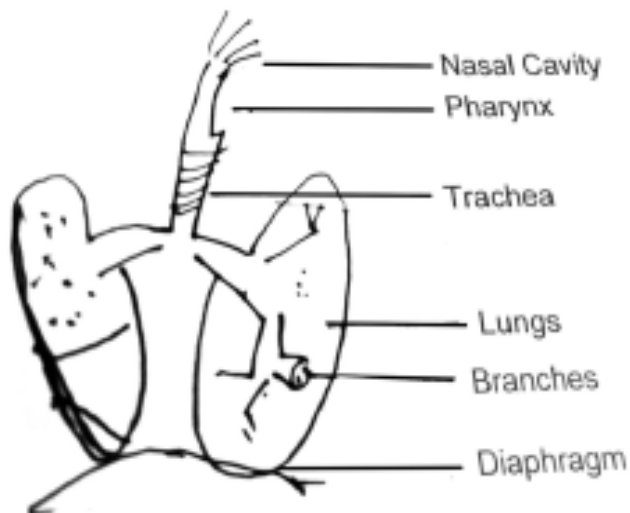
Code

	(i)	(ii)	(iii)	(iv)
a	1	3	4	2
b	3	2	4	1
c	2	1	4	3
d	3	1	4	2

Ans. (d)

(SECTION-B)

Q.13 Name the organ from Structure of Respiratory System.

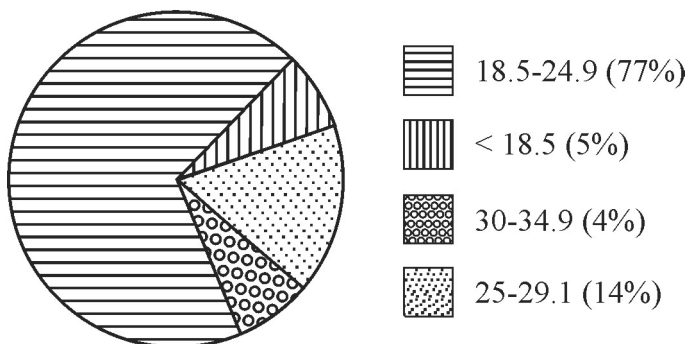


Q.14 Write about physical Education and its objectives.

Q.15 Write about Yogic Kriyas

(SECTION-C)

Q.16 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.17 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.18 Write about Principles of Sports Training.

Q.19 Write about Types of Joints. Write about two

Q.20 Write components of health related fitness and explain any two.

Q.21 What is psychology? Write importance of psychology in physical education and sports.

Q.22 Write about gravity changing trends of sports in wearable gears.

Q.23 Write about Khelo India Programme.

Q.24 Write about International Olympic Committee.

Q.25 Write aims and objectives of Adaptive Physical Education.

(SECTION-D)

Q.26 Describe the components of physical fitness and wellness with examples.

Q.27 Differentiate between Ancient and Modern Olympics.

Q.28 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?

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