**SAMPLE QUESTIONS AND SUGGESTED**

**GUIDELINES OF ANSWERS-2016**

**CLASS-XI**

**PHYSICAL EDUCATION (THEORY)**

**Prepared by:- Dept. Of Physical Education, DAV, Cspur**

**SAMPLE QUESTION NO.1**

**1. What is positive life style?**

***Ans.*** A way of life or living style that reflects the attitude and values of as person or group. **1**

**2. What are the career options available through physical activities?**

***Ans.*** Physical activities has increased and many career options have cropped up. Various career options in this field may be (a) of teaching, (b) coaching, (c) recreation work, (d) administration of physical activities like the duties of District sports officers, (e) sports journalism, (f) radio and television commentators, (g) sports medicine field and (h) professional sportsmen. **1**

**3. What is Beta Blockers in Doping?**

***Ans:*** Beta blockers are anxiety reducing agents which are used in games that involve concentration and risk. They reduce the anxiety, lower the heart rate, reduce body temperature, reduce stress. **1**

**4. What do you mean by Ergogenic Aids?**

***Ans.*** Ergogenic aids are substances, foods or training methods that enhance energy production, use or recovery and provide athletes with a competitive advantage. In fact, Ergogenic aids are any external influence that enhance spots performance or facilitate physical exercise.

**5. Mention two important functions of Respiration?**

***Ans.*** (a) Inhalation, (b) Exhalation. **1**

**6. What is the meaning of Physical Fitness?**

***Ans.*** It is the capacity of an individual to perform a given task or it is the capacity to carry out reasonably well, various forms of physical activities without unduely being tired and It can be said that physical fitness is the ability to function effectively and efficiently, to be healthy, to resist disease and to cope with the emergency situations and includes developing qualities important to the individual health and well being. **1**

**7. What do you mean by Obesity?**

***Ans.*** Obesity:- Obesity is that condition of the body in which the amount of fat increases at extreme level. **1**

**8. What are the types of Doping?**

***Ans***. **Doping:-** Doping can be classified into the following two types: **1**

1. Performnace enhancing substances (Stimaulants, Anabolic Steroids, Peptide Harmones, Narcotics etc.),

2. Physical methods ( Blood Doping, Gene Doping) **1**

**9. Define Physical Activity?**

***Ans.*** Physical Activity is any body movement that works your muscles and requires more energy than resting. It can also be defined as any movement of the body that requires energy expenditure. **1**

**10. What do you mean by Pranayama?**

***Ans.* Pranayama :** Prana means ‘life force’ and ayama means ‘to control’. Pranayama helps in controlling all the functions of breathing namely-inspiration, exhalation and retention. These are breathing practices to breath in, to breath out and to be relaxed. It means these breathing exercises promote energy, awaken the mind and clean the body. **1**

**11. Mention the preventive and curative effects of Yoga.**

***Ans.* Preventive and curative effects of Yoga :** Yoga involves a variety of postures, which affect the entire body. Asanas recharge the body and help in even distribution of energy throughout the body. It helps in curing many diseases related to circulatory and respiratory system, muscular system, skeletal system, nervous and digestive system. This results in improved health of mind and body. **1**

**12. Enlist the performance enhancing substances.**

***Ans.*** **(Perfomnace enhancing substaces:-** Doping can be classified into the following two types: 1. Performnace enhancing substances,

2. Physical methods. Perfomace enhancing substaces are.

1) Stimulants:- Stimulants are related to a group of drugs that enhance alertnes and physical activity by increasing heart and breathing rates and the functions of the brain.

2) Anabolic steroids:- Anaboli steroids stimulate the growth of muscles and help the athletes to train harder and recover rapidly.

3) Peptide Harmones:- peptide harmones are substances that are produced by glands in the body.

4) Narcotics:- Narcottics are used to reduce or eliminate pain from injuries or allow athletes to do persistent efforts for a longer time.

5) Cannabinoids:- Cannabinoids are psychoactive chemicals that cause a feeling of relaxation.

6) Diuretics:- Through diuretics are non-performance enhancing drugs but these are used in sports remove fluids from the body particularly water. (Explain any three) **3**

**13. Give a short description of different Muscle Types 3**

|  |  |  |
| --- | --- | --- |
| **S. N.** | **Muscle Type**  | **Description** |
| (a)(b)(c) | **Cardiac Muscle (striated, involuntary)****Smooth Muscle (unstriated, involuntary)****Skeletal Muscle (striated, voluntary)** | This makes up the wall of the heart.This is contained in structures which we do not have control over such as blood vessels, stomach and intestine, urethra, uterus, internal muscles of the eye.This is the muscle attached to our skeletons and allows us to move our bodies. |

**14. Discuss any three components of physical fitness :**

***Ans.* Principles of Adapted Physical Education :**

(1) Students with disabilities require adapted physical education activities to the limit of their capacity, to meet their physical, mental, social and emotional needs.

(2) Every effort should be made to ensure that the adapted physical education programme is according to the needs and capacities of students.

(3) The equipment, facilities, rules and instructions of an adapted physical education programme should be modified according to the need.

(4) The adapted physical education programme should be physically as well as psychologically sound. **3**

**15. Mention the Objectives of Olympic Games.**

***Ans.* Objectives of Olympics :**

According to **Coubertin,** following objectives can be achieved through Olympic Games :

(1) To pay attention towards physical education and sports competitions in all the countries of the world.

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

(3) Formation of good habits among sports-persons so that they could lead a healthy and prosperous life.

(4) To develop patriotism and fraternity among sportspersons.

(5) To develop international fraternity and peace.

(6) Not to have any discrimination on the basis of caste, race and religion. **3**

**16. Mention the Prevention and Treatment of Hypertension**

***Ans.* Prevention and Treatment of Hypertension:** As a matter of fact, the individuals who have hypertension remain more serious to know their measuremnets of blood pressure instead of doing something to prevent it. Hypertension can be checked as well as treated, if they follow the below mentioned points appropriately :

(a) **Relieve Stress :** Relieve unnecessary elements of stress in your life. Try to indulge yourself in some recreational activities as well as in meditation, yoga, regular walks, dancing and mixing with other people, etc. These are best means to relieve stress which further reduces hypertension. Consequently, it can be said that by following the above-mentioned points on regular basis hypertension can be prevented and treated effective.

(b) **Take Proper Diet :** Reduce the intake of sodium in your diet *i.e.*, take less salt. Take potassium, calcium, magnesium, high fibre, wholegrain products, low fat, nuts, fruits and vegetables in your diet. Researches indicate that such diet is beneficial in preventing and treating hypertension.

(c) **Reduce Obesity :** Use high quality programme of exercises and take appropriate balanced diet to reduce obesity. Reducing your body weight is the most effective way to treat hypertension.

(d) **Exercises or Sports Activities :** Exercises or sports activities are usually helpful in the prevention and treatment of hypertension. In fact, exercises lower the blood pressure through some possible mechanisms. Moderate exercises with high intensity are very effective for a long-term blood pressure lowering programme. In the beginning, walking should be at slow pace, then gradually it should be increased at a faster rate. It should be kept in mind that the patients of hypertension should perform such exercises with moderate intensity. The amount and duration of exercise programme should be according to the capacity of an individual. Aerobic exercises and playing various sports and games are also very effective in preventing and treating hypertension. The exercises should be performed regularly for good results.

(e) **Change in the Lifestyle :** A change in the lifestyle can be a boon to the persons having hypertension. They should take proper and balanced diet. They should not lead sedentary lifestyle. Instead of this, they must lead active and healthy lifestyle. They should not consume alcohol. They must say ‘no’ to smoking in action, not just in words. They should not indulge themselves in overwork. They should not take drugs and other stimulants. They should not adopt the Western lifestyle. They should keep themselves away from Western diet. Such types of lifestyle management may do miracles in preventing and treating hypertension. **3**

**17. Mention three responsibilities of an Athlete in doping.**

***Ans:***1)To be knowledge of and comply with all applicable anti-doping policies and rules adopted pursuant to the code, 2) be available for the sample collection at all times, 3) take the responsibility in the context of anti-doping, for what they ingest and use, 4) to maintain control of your sample until sealed.

**18. Discuss the Paralympic Movement in brief. 3**

***Ans:*** The concept, origin, year of introduction, Opening & closing ceremony, International Paralympic Committee, categories of disability, Events to be mentioned.

**19. Value Based.**

Once upon a time, during an athletic meet in stadium, 8 girls were on starting line ready for the race. With the sound of pistol, all 08 girls started running. Hardly had they covered 10 to 15 metres, when accidently one girl slipped and fell. Due to pain the girl started crying. As soon as the other 07 girls heard her cry; all of them stopped running, stood for while, turned back, and ran towards her. Suddenly, the girls returned, pacified her, joined their hands together, lifted her, walked together and reached the finishing line. The officials were shocked to see such scene and unity. Quite a many eyes were filled with tears. **Based on the passage above, answer the following questions:**

1. What values do they teach?

*Ans: Unity, Coordination, understanding*

1. What quality girls have shown by walking together?

*Ans: help the needy at the time of crises*

3. What was so special about the race?

*Ans: Sportsman spirit* **3**

**20. Define Asana, Pranayam, Meditation**

***Ans.*** The prolonged practice of yoga leads the student to a sense of peace with his/her environment. Asanas cater to the needs of every individual according to his physical condition and capacity. Various effects of yoga on individuals are stated below : (1) **Asanas :** After yama and niyama, asanas come on third number. Asana means ‘position or posture of body’. It also means to sit in easy posture. Due to its popularity, most of the people think that yoga is nothing but asana. They are not aware that asana is a step towards yoga. In fact, asanas are performed to keep the body flexible, agile and young. Asanas also enhance the beauty of the body by reducing inappropriate accumulation of fat in the body. There are various types of asanas such as corrective asanas, relaxative asanas and meditative asanas. These types of asanas have different types of effects on various organs of body. These asanas activate the functions of various organs. asanas can be performed from young age to old age without any problem. (2) **Pranayama :** Pranayama is the control of the process of breathing. 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). There are various types of pranayama such as Ujjayi, Suryabhedi, Sheetkari, Sheetali, Bhastrika, Bhramari, Murcha and Plavini. It helps in metabolic activities and enhances the function of heart and lungs. It also provides longevity to life. (3) **Meditation :** The concentration power is very significant in the field of sports. Concentration is required approximately in all games and sports. In fact, endurance, strength and desire to excel lose their meaning if there is no concentration. For example, when a badminton player displays his concentration his gaze is fixed on shuttle and his energy, tactics and skill produce very good results for him. Some asanas like Vajrasana, Vriksasana, Padmasana and Siddhasana, etc. and pranayama such as Ujjayi, Kapalbhati, and Bhastrika, etc. are beneficial for the improvement of concentration power. 5

**21. Give a brief account of value that can be developed through Olympics.**

***Ans.* Values of Olympic:-** The following values canbe developed through Olympic Movement in reference to its aim and Objectives. 1) Friendship, 2) Solidarity, 3) Fair Play 4) Free from discrimination etc.

**Friendship :** Men and women are at the centre of the Olympic Movement, which encourages links and mutual understanding between people. This value refers to building a peaceful and better world through solidarity, team spirit, joy and optimism in sports. The Olympic Games inspire people to overcome political, economic, gender, racial or religious differences and forge friendships in spite of those differences. For athletes, this means forming life-long bonds with their team-mates, as well as their opponents.

**Solidarity :** Olympic movement also provides ample opportunities to enhance solidarity. It gives a feeling of brotherhood and unity among various nations. It creates cohesion among the participants as nations.

**Fair play :** In the Olympic ideal, this value refers to giving one’s best, on the field of play or in life, without over-emphasising comparative performance yet still being determined to reach one’s personal objectives. It is not only about winning, but also participating, and making progress against personal goals, striving to be and to do our best in our daily lives and benefiting from the healthy combination of a strong body, mind and will.

**Free from Discrimination :** Olympic games gives ample opportunities for participation in respect of caste, creed, religion and race. So it is called as the Olympic Games are free from discrimination.

**Respect :** This value represents a principle which should inspire all those who take part in Olympic programmes. Respect for oneself and one’s body, respect for one another, for the rules as well as for the environment. It refers to the fair-play attitude that athletes should have, and to their commitment to avoid doping. The values of **friendship, Solidarity, fair play, free from discrimination and respect** are the foundation upon which the Olympic movement brings together sports, culture and education for the betterment of human beings. **5**

**22. Briefly discus about the Circulatory System of the body :**

***Ans.* Circulatory System:** This system comprises of the heart, blood vessels (arteries, veins and capillaries).

The Complex network of tubes called blood vessels, (which extends as a network, throughout the body) together with the blood they contain and they heart, make up the Circulatory System. It is caled Circulatory System, because it circulates or moves the blood around from the heart to the body’s tissues and organs and back to the heart again, ready for its next journey. The entire circuit is completed in the body, as in a circle. Hence, the word circulation.

**There are 3 main types of blood vessels in the body :**

• **Arteries :** Arteries are elastic tubes that carry the blood from heart to different parts of the body. Generally they carry oxygenated or pure blood except pulmonary artery, which carries oxygen poor blood.

• **Veins :** Veins carry the blood from different parts of the body towards heart. Generally they carry oxygen poor blood or deoxygenated blood except for pulmonary vein, which carries oxygen rich blood. These are less elastic. • **Capillaries :** Capillaries are the smallest blood vessels and they are the link between the

arteries and the veins. The blood is pumped throughout the body by a hollow muscular organ called heart, which is the chief organ of Circulatory System. 5

**23. What is doping? Explain the side effects of prohibited substances in detail. (any four) *Ans.*** Doping is the use of perfomance enhancing substances or methods by athletes to gain an advantage over their competitors. According to International Olympic Committee, "Doping is the use of any method or substance that might harm the athlete, in a quest to gain an unfair advantage, over his/her fellow competitors". Side effects:- Anabolic steroids having Cardiovascular Effects (elevate the blood pressure and decrease (HDL) High density Lipoprotein), Endocrianal effects (increase aggressiveness, sexual appetite and cause liver tumrs, cancer and jundice) & Psychological effects (mood swings, aggression, depression, distrubance in the personal traits). The probhibited substances like Stimulants increase heart reate and palpitation, Narcotics may cause loss of balance and coordination, Paptide Hormones thickening of the blood clots, Beta-2-Angonists cuses trembling, headaches and risk of cardiac arrest, Diuretics may cause dehydration,Glucocorticoids causing weak tendons, muscle turn, Cannabinoids reduce concentration and coordination. (Explain any four) 5

**24. What is adopted physical education & explain its principles.**

***Ans***: Adapted physical education is the art and science of developing and implementing a carefully designed physical education program for an individual with a **disability,** to give the individual the skills necessary for a lifetime of rich leisure, recreation, and sport experiences to enhance physical fitness and wellness. a) Principles-All students are entitled to a dynamic Adapted Physical Education program.

b) The instructional style of the Adapted Physical Education program will accommodate diverse learning styles and the specific needs of our students.a) Excellence in Adapted Physical Education teaching and learning grows from a commitment shared by teachers, students, parents, administrators and the community as a whole.b)Physical fitness and activity are essential for lifelong growth and learning.

c)All students will be motivated and encouraged to participate in individual and group activities to provide them with a broad range of health and wellness opportunities - with a direct focus on effort, sportsmanship, and achievement. 5

**25. Discuss “Yoga as an Indian Heritage”.**

***Ans*:** Yoga means to unite, to join or to concentrate one’s attention.

Yoga in Indian Heritage:- History & Yoga is related to Indus Vally Civilization. Where yoga was very popular. Yoga is also mentioned in Mahavarat, Ramayan and Upanishad. Patanjali’s yoga Shastra was written more than 5000 years ago. Kabir Das, Tulasi Das & Surdas also mentioned about yoga in their writings. In modern period Swami Vivekananda and Baba Ramdev was a great exponent of Yoga.

Yoga has evolved through various periods in Indian history. These periods are pre-Vedic period, Vedic period, Upanishad period, Epic period, sutra, smiti, medieval, modern period. (explain any five) 5

**26. Mention the concept and need of sports environment in detail.**

***Ans:*** Concept- Meaning- Sports environment is the conditions and circumstances in which sportspersons perform or indulge in sports activities. Physical Environment, Social environment, Need – for Raising the standard of sports, for proper growth and development, for avoiding physical health risks, for avoiding sports injuries, for avoiding Mental health risks, for enhancing mass participation, explanation in brief. **-X –** 5

**SAMPLE QUESTION NO. 2**

**1. Define Sports Training**

***Ans.* Sports training :** The term sports training denotes preparing of the sportspersons for the highest level of performance. Sports training is the physical, mental, intellectual, psychological and moral preparation of an athlete or a player by means of physical exercises. **1**

**2. What is the role of IOC**

***Ans.*** To develop and protect Olympic Movement and amateur sports. **1**

**3. What is Psychology?**

***Ans.*** **Psychology :** The science of seeking to describe understand and predict the behaviour of organism. **1**

**4. What do you mean by Smooth Muscles**

***Ans.* Smooth Muscles :** These muscles are also called *involuntary or unstriped muscles*. These muscles are responsible for the characteristic movements associated with alimentary canal. These muscles control and adjust the diameter of blood vessels and the ducts of glandular tissue. These muscles contract without nervous stimulation. **1**

**5. Discuss ‘healthy diet’ as a component of Positive Life Style.**

***Ans.*** Healthy diet:- Healthy diet or good nutrititon is one of the main components of positive life style. Infact, a healthy diet or good nutrition is necessary to lead a healthy or positive lifestyle. The healthy diets mainly fresh frutits and vegetables, whole grain foods and low fat dairy products are required to maintain the adequate amount of vitamins, nutrients and minerals needed to maintain a healthy body. **1**

**6. Define adopted physical education?** **1 *Ans***. A diversified programme of developmental activities,games or sports suits to the intrest of the students with disabilities in the general physical education programmes.

**7. Define the term Biomechanics in your own words.** **1** Ans. It is a combination of two words Bio & mechanics – life and study of movements. The study and analysis of human movement patterns in sports is called Biomechanics. **1**

**8. What do you mean by Training**

***Ans.* Training :** The word ‘Training’ menas ‘the process of preparation for some task’. This term is widely used in sports. This process invariably extends to a number of days, months and years. **1**

**9. What do you mean by Integrated Physical Education?**

***Ans.*** **Integrated Physical Education:-** Integrated physical education is a comprehensive concept. It is not only limited to physical activities, games and sports but has become a complete discipline. It is having various subdisciplines such as sports sociology, sports biomechanics, sports medicines, exercies physiology, sports managemnt etc. it encourage health factors, consider safety means, promote moral values and discipline, prepared lesion plan, Effective teaching methods, new relationships etc. **1**

**10. Why we have Hypertension and stress?**

***Ans.*** Hypertension and stress are the results of (a) fast life, (b) competition, (c) economic and social pressures and (d) lack of physical activities. The promotion of games, sports and recreational activities can help solve such problems. **1**

**11. Mention the effects of Narcotics on human body.**

***Ans.***Narcotics are pain killers which make people slow and sleepy. The effects of these drugs are like slow response, deeline in activity, addiction etc. **Examples :** Morphin, opium, heroin, cocaine etc. **1**

**12. Briefly explain any three elements of Yoga?**

***Ans.* Elements of Yoga :** There are eight stages of Yoga to secure purity of body, mind and soul.

These are (i) Yama, (ii) Niyama, (iii) Asana, (iv) Pranayama, (v) Pratyahara, (vi) Dharana, (vii) Dhyana, (viii) Samadhi. (Explain any three) **3**

**13. Narrate any three side effects of the Prohibited Substances?**

***Ans.*** (a) Increase the heart rate; (b) cause cancer; (c) Infertility;

(d) decrease in sexual power; (e) hypertension. (Explain any three) **3**

**14. Explain any three factors affecting Physical Fitness and Wellness?**

(a) Genetic or hereditary (b) Environment

(c) Proper diet (d) Regular exercise.(explain any three) **3**

**15. Mention the different categories of Men and Women. 3**

***Ans.***

|  |  |  |
| --- | --- | --- |
| **Category** | **Men** | **Women** |
| Underweight RangeHealthy RangeOverweight RangeObese Range | Less than 2020 to 2526 to 30More than 30 | Less than 1919 to 2425 to 30More than 30 |

**16. Mention the effects of Exercises on Skeletal System.**

***Ans.* Effects of Exercise on Skeletal system :** As a result of exercise, bones have to be moved to various positions. These movements are made possible due to the provision of joints in the body. Therefore, during exercise the joints have to bear a lot of stress, which puts a lot of strain on its ligaments that exert a binding force and the cartilages, which are the paddings in between the bones. This strain is borne by the ligaments and cartilages up to a certain limit but when the strain exceeds a limit, these get injured. Excessive strain can also cause the fracture of a bone. Due to the injury of ligaments or cartilages or both ligaments and cartilages, the malfunctioning of the joints takes place. It leads to pain and swelling in the area. If this malfunctioning is allowed to continue for a long time, it can lead to a deformity of the joint. **3**

**17. Elaborate the types of lever & their application in sports. 3 *Ans:*** Class 1 - The fulcrum lies between the effort and the load. Example- Seated dumbbell triceps extension

Class 2 - The fulcrum is at one end, the effort at the other end and the load lies between the effort and the fulcrum. Example-Standing heel lift. Class 3 - The fulcrum is at one end, the load at the other end and the effort lies between the load and the fulcrum.Example-Seated biceps curl. **3**

**18. Briefly discus the various developmental characteristics during childhood.**

***Ans.* Developmental characteristics during childhood :**

(i) **Physical development :** In early childhood teeth start falling and permanent teeth starts grwoing. Growth of girls is more than boys in this period. Increase in height is slow because muscles and bones are developing.

(ii) **Intellectual development :** By the time the child is 12 years he develops language skills. One starts thinking, reasoning, remembering etc. keenly observes others. Interest in various things keeps on changing and exhibits love towards nature.

(iii) **Emotional development :** They become more stable emotionally. At this stage sentiments and complexes are formed. Child is innocent and remains under control. They start feeling conscious of their act.

(iv) **Social development :** Develops a good and bigger circle of friends. He loves to play with his peer group. They develop more interest in team games and love playing in their own groups. **3**

**19. Value based:-**

During 1972 Munich Olympic Games 11 players of Israel were shot Dead ruthlessly, during 1936 Berlin Olympics Adolf Hitler refused to Honour Jasse Owens, the negro athlete who got four gold medal in that Olympic and 3 Olympic games were not held due to World wars. In reference to these happenings of Olympics answer to the following questions.

a) Which are the values of Olympic are hampered in these cases

b) Which difference was still exists inspite of all trials by the leading countries of world and global leaders.

c) What is your message to the sporting arena in this context.

***Ans:*** a) Free from Discrimination & Friendship, b) Racial differences, c) to take steps to bring the world under one roof. Or any other related message. **3**

**20. Define Modern Olympic movement & explain its core values . 5**

***Ans:*** Olympic movement-As is clearly defined in the Olympic Charter, “The goal of the Olympic Movement is to contribute to building a peaceful and better world by educating youth through sport practised in accordance with Olympism and its values. The Olympic Movement is composed of three main constituents: the International Olympic Committee (IOC), the International Sports Federations (IFs) and the National Olympic Committees (NOCs).

**Values of Olympic movement**- **Excellence:**This value stands for giving one's best, on the field of play or in the professional arena. It is not only about winning, but also about participating, making progress against personal goals, striving to be and to do our best in our daily lives.

**Friendship:**This value encourages us to consider sport as a tool for mutual understanding among individuals and people from all over the world. **Respect:**This value incorporates respect for oneself, one's body, for others, for the rules and regulations, for sport and the environment. Related to sport, respect stands for fair play and for the fight against doping and any other unethical behaviour.

**Non-Discrimination.**The Olympic Movement strives to ensure that sport is practised without any form of discrimination whatsoever. **Solidarity.**The Olympic Movement is committed to developing programmes that, together, create a meaningful and comprehensive social response to issues within its sphere of influence.

**Fair Play:**- Fair play is based on justice. There should be justice to each player as well as team. There should not be any favour or inclination towards a team. Rules and regulation must be applied fairly to each team. 5

**21. Narrate the Aims and Objectives of CBSE Sports Programme**

***Ans. (a)* Aim and Objectives of CBSE Sports :** (1) To organize such other activities as may be conducive to the aim and objectives of the sports committee as mentioned above.

(2) To organize orientation refresher and training programmes for Physical Education Teachers.

(3) To raise the general standards of sports and games prevailing in the schools and to work for the develpoment and values through sports among the students.

(4) To encourage sportsmanship and to promote friendly relations among the schools.

(5) To organizer inter-school tournaments and competitions in the sports and games recognized by the CBSE.

**(b) Organising the National Level Sports and Games :** The organising school of the national championship will be responsible for conducting the tournament in the best possible manner. The organising school will send the complete and detailed information about the national championship to all the cluster. Zone level organising schools well in advance, so that the qualifying schools coming to participate in the nationals are fully aware of the venue details and other relevant information about it. The schools hosting national level competitions are permitted to participate directly at that level in that particular discipline and hence need not participate at the lower levels of the competition. Only one team/player shall be eligible for direct entry from the host school. In case of athletics, swimming and table tennis, a large number of students participate at national level. So keeping it in view, the nearby school can act as a co-host.Though the competition will be held at the same single venue but the boarding and lodging facilities either for girls or boys will be provided by the co-host school.

 **© Organising the Cluster/Zonal Level Sports and Games :** Each cluster/zone organising school will send a detailed circular intimating all the details at least a month before the commencement of a tournament. Immediately after the competition is over, the complete information will be sent to the AEO (Sports), CBSE regarding the address of the qualifying schools/athletes. **5**

**22. Mention in detail of the structure of Heart with figure**

***Ans.* Structure of Heart :** The heart is a muscular conel-shaped organ about the size of a clenched fist of the same person. It is located in the upper body (chest area) between the lungs, and with its pointed end (called the apex) downwards, forwards, and pointing towards the left. The heart is a pump consisting of four chambers. It is vertically divided into two halves (left and right) by a septum. Each half is further divided into upper and lower halves, which communicate through atrio-ventricular valves. The two upper chambers are called atria (singular-atrium) and the two lower chambers are called ventricles. The main purpose of the heart is to pump blood around the body. ***(Draw a figure of the Heart for another 4 marks)*** **1+4=5**

**23. Place your views on the development of physical education in post independence era. *Ans:*** a. Organisation of first Asiad games at New Delhi in 1951 in post independence era.

i) Government of India realized the importance of physical education or physical activities for the people and an important step in that direction was the establishment of a Committee which was named “Tara Chand Committee”.

ii) Central Advisory Board was being set up in the year 1950 to provide training to athletes in various games and sports, some special kinds of schemes were being introduced by government of India.

iii) Sports Talent Search Scholarship scheme was introduced by government of India in the year 1970-71

iv) All India Council of Sports was setup in 1954.Formation of National Institute of Sports at Patiala in 1961.

vi) Coaching Scheme for Games and Sports suggested by Raj Kumari Amrit Kaur was started in 1953.

vii) National Physical Fitness Drive (1959).&National Institute of Sports (1961).

viii) Organisation of Asid Games in 1982 & Common wealth Games in 2010 at new Delhi. **5**

**24. Discuss the prevention and management of obesity in detail. *Ans:*** Prevention of obesity- A. Exercise related Preventive Measures B. Diet-related Preventive Measures

A. Exercise related Preventive Measures :- Regural Physical Exercises, Yogic Exercises, Resistance Exercises

B. Diet-related Preventive Measures :- Avoid Fatty Foods, Avoid low calorie Diet, Avoid over eating etc.

a. Encourage children to eat only when hungry, and to eat slowly.

b. Avoid using food as a reward or withholding food as a punishment.

c. Serve at least five servings of fruits and vegetables daily.

Management: Encourage children to drink water rather than beverages with added sugar, such as soft drinks, sports drinks and fruit juice drinks. (explain these Points in detail) **5**

**25. Explain in detail the Functions of Muscular System**

***Ans.* Functions of Muscular System :** Muscular system is just like a machine which converts chemical energy into mechanical energy. As we are well aware that there are three types of muscles in our body *viz.* skeletal muscles, smooth muscles, and cardiac muscles. Each type of muscle performs specific function in our body. Along this, there are two types of skeletal muscle fibres in a human body namely, red fibres and white fibres. They are also called slow twitch fibres and fast twitch fibres respectively. These fibres also have different functions. The various types of muscles and fibres perform the following functions :

1. Big muscles provide protection to the bones.

2. Some muscles help in increasing the range of movements.

3. Muscles also provide shape to the human body.

4. The two types of skeletal muscle fibres *i.e.* slow twitch fibres and fast twitch fibres perform different types of functions. Slow twitch fibres contract at a slow rate. These fibres play vital role in endurance activities or aerobic activities, such as in cross country race or long distance races. The fast twitch fibres contract at a fast rate. These fibres produce explosive power. These fibres perform fast repetitive contraction. These fibres are used in 100 M race or sprint races, high jump, weightlifting, basketball and football, etc. These fibres play vital role in performing anaerobic activities.

5. Smooth muscles are concerned with the movements of internal organs, such as those of the stomach, intestines, visceral and blood vessels.

6. Cardiac muscles perform pumping action of the heart.

7. Skeletal muscles provide the force for movement of the skeletal system. These muscles perform movements at our own will.

8. Muscle contractions usually carry out one of the two things—either they maintain a posture or they cause movement. **5**

**26. Discuss the principles involved in Physical Activity Environment.**

***Ans.*** Proper environment for a beneficial physical activity is required. The principles to be followed:- location of the place of physical activity, Polluteless environment for physical activity, Proper facilities for physical activities, Proper playgrounds and courts, Proper climatic conditions, Existing infrastructure should be well-maintained, Physical activity environment should be safe and clean, Drugs free environment, Physical activity environment should be attractive and enjoyable, Good social environment. (Explain any five) **5**

**X –**

**SAMPLE QUESTION NO. 3**

**1. Write a short note on modern Olympics. 1**

 ***Ans.*** When the ancient city of Olympia was excavated, Coubertin started to campaign for the revival of the Summer Games as an international event. His views were accepted and the modern Olympics were born in 1896. This also marks the birth of the Olympic Movement

**2. Mention the full form of SAI & the year of its establishment.**

***Ans.*** Sports Authority of India & 1984 **1**

**3. What is the aim of Physical Education**

***Ans.*** The aim of physical education is to influence the experiences if persons to the extent that each individual within the limits of his capacity may be helped to adjust successfully to society, to increase and improve his wants and to develop the ability to satisfy his wants. **1**

**4. What do you mean by Swadhyaya?**

***Ans.*** To study the great Vedas, granths, Upanishads, yogdarshan and gita with devotion is called swadhyaya. **1**

**5. What is Diet control?**

***Ans.*** It means the proper proportionate of diet to provide energy to the body. It is to avoid and minimize fatty food, over eating, taking of healthy and hygienic food etc. **1**

**6. Define circulatory system**

***Ans.*** It consists of blood, blood vessels heart etc. It provides fluid movement in body. **1**

**7. What do you mean by Mechanism of Respiration?**

***Ans.*** Mechanism of respiration is a process by which the lungs expand to take in air and after that contract to expel the air outside. **1**

**8. What is drug abuse?**

***Ans:*** Drug abuse, is a patterned use of a substance (drug) in which the user consumes the substance in amounts or with methods which are harmful to themselves or others. **1**

**9. What do you mean by wellness**

***Ans.***The scientific meaning of wellness is the state of being healthy and free of diseases. Wellness is defined as the optimal functioning of body and creative adapting to environment that involves the whole person. **1**

**10. What do you mean by doping?**

***Ans.*** Doping may be defined as the introduction of artificial substances or drugs into the body to improve performance and gain advantages. **1**

**11. Define heart rate.**

***Ans.*** Heart beats per minute of an individual is called his heart rate. The heart rate of an individual depends on many factors such as (a) age, (b) postural changes, (c) emotions and (d) as a result of exercise.

During exercise it varies with (i) the type of exercise, (ii) intensity of exercise. **1**

**12. Explain any three importance of Meditation in Sports**

***Ans.* Importance of meditation in sports :**

(1) It helps to increase concentration and focusing of thoughts or goals.

(2) Eliminates stress and anxiety.

(3) Gives relaxation to body and mind.

(4) Helps in controlling our thoughts and behaviour.

(5) Helps in stabilizing cardio - respiratory and autonomic activity of individuals.

(6) Constant practice of meditation helps one to control anger/aggression.

(7) Eliminates unwanted, undesirable and destructive thoughts appearing in mind so that a clam and healthy state of mind is achieved. **3**

**13. Briefly explain any three components of positive life style.**

***Ans:*** Healthy diet, Physical activity, Stress management, Socialization, Personal hygiene, Proper sleep, Balance in life. Safe environment. **( explain any three) 3**

**14. Explain in detail the Load, Adaptation and Recovery**

**Load:-** In the field of sports the load is known as training load, a training load is the work or exercise that a sportsperson performs in a training session. In other words it can be said that training load is the psychological and physiological demands put on the organism through movement resulting in improvement or maintenance of performance capacity. **Adaptation:-** Adaptation is the process of long-term adjustment to a specific stimulus. Adaptation refers to your body’s physiological response to training. Adaptation occurs during the recovery period after the training session is completed. When you do new exercises or load your body in a different way, your body reacts by increasing it’s ability to cope with that new load.**Recovery:-** Recovery is to regain what was lost. Recovery is an essential part after exercise or training load. **The process of stimulus-recovery and adaptation:-** The general adapation takes place inside the body all the time. For improving the sprts performance, the Training load has to be increased. Fatigue during the training is another cause of lack of adaptation. In fact it is actually a process of intentionally repeating stimuli (exercise) which results in recovery-adaptation, which avoidingover-training. **3**

**15. Explain the breathing process in the human body**

***Ans.* The Process of Breathing :** Breathing involves the ribs, the intercostal muscles, lungs and the diaphragm. Breathing process is carried out in two phases :

• Inhalation or Inspiration • Exhalation or Expiration.

**Inhalation :** To make inhalation possible the intercoastal muscles contract and lift the ribs upward and outward. The diaphragm muscle also contracts and flattens. These movements increase the size of chest cavity; as a result the pressure inside the lungs decreases. As the pressure outside the lungs is greater, the air moves into the lungs. **Exhalation :** When breathing out, the muscles relax, the ribs go back to their normal unexpanded position, and the diaphragm springs back into place. With the chest activity back to its normal size, the pressure inside the lungs increases and is greater than the atmospheric pressure. As a result the air moves out of the lungs through nose or mouth. **3**

**16. Explain the principles of sports training.**

***Ans:*** a. Principle of continuity- it should be continuous, regular, and should not be long period of inactivity Interval between two training session should not be too long.

b. Principle of individual difference- As each person is differ in their shape & size so also working ability. So the load factor of each one must be as per the suitability and standard of the person.

Other related points like- Principle of overload, Principle of use, Disuse, Principle of variety, principle like of warm up & cool down etc. **3**

**17. Why meditation is required for a human being**

***Ans.*** Meditation is a process of complete constancy of mind. It is a stage prior to Samadhi. Generally, dhyana remains attached to our life at every moment. Whenever we perform any specific task in the family it is usually advised to do that task with ‘dhyana’ (*Dhyan se Karana*). But we do not understand its appropriate meaning. It fact, dhyana is a complete concentration of mind over a period of time without any divergence. **3**

**18. Narrate the importance of physical fitness and wellness**

***Ans.* Physical fitness :** It is the ability of an individual to carry out his daily routine or without getting tired and having extra amount of energy to meet any kind of unforeseen emergency.

Physical fitness and wellness is required for proper growth and development. It enables the body’s physiological systems to function more efficiently and smoothly. Physical fitness is not only one of the most important keys to a healthy body but also the basis of dynamic and creative intellectual activity.

(i) It improves the quality of life. In our daily life a physically fit person can manage the routine work efficiently and without getting fatigued.

(ii) It helps in teh prevention of cardiovascular diseases. A physically fit person is less prone to coronary heart diseases.

(iii) It improves the efficiency of cardiovasular system. (iv) Helps in harmonious growth and development.

 (v) Fulfils proper nutritional requirement.

(vi) It helps in better management of stress and tension. **3**

**19. Value Based:-**

***Ans.*** In Hockey match two forwards players scoring equal no. of goals both of them want to become the best scorer. In the last minute when one of the forward player gets an opportunity to put the ball in the goal. Suddenly to everyones surprise he passes the ball to the other forward player of his team for taking the opportunity to score.

a) What does this action of passing on the opportunity to another player depicts?

Ans. The sprit of Sportsmanship.

b) What values the player taught through this action?

Ans. It convey the message that team is above the individual or player performance. **3**

**20. Explain any five career options available in Physical Education**

***Ans.* Physical Education and Career Options :** The careers related with Physical Education are outlined as under :

(a) **Athletic Coach :** Organize, instructs, and teaches amateur and professional athletes in fundamentals of individual and team sports.

(b) **After school/Summer program Co-ordinator :** Responsible for administration of program and activities run at that time. Job responsibilities are similar to that of a Principal of an Institution.

(c) **Athletic Director-College/University :** Responsibilities similar to the Head of the Department of Physical Education or an Administrator.

(d) **Activities Director :** Responsible for a recreation program’s daily operation, primarily organize and direct participants.

(e) **Community/Commercial Recreation :** Organize and direct leisure activities and athletic programs for employees of all ages.

(f) **Cardiovascular Fitness Instructor :** Conduct group exercise sessions that involve aerobic exercise, stretching, and muscle conditioning. The care of Cardiac Rehabilitation. 5

**21. Motion plays a vital role in Games and Sports - Explain**

***Ans:* (a) Laws of Motion :** The laws of motion that have great bearing in sports activities are known as Newton’s Laws of Motion. These are :

(i) A body continues to remain in its state of rest or of uniform motion in a straight line unless it is compelled by force to change that state.

(ii) The acceleration produced in a body is proportional to the force applied.

(iii) For every action, there is always an equal and opposite reaction.

(i) Running around a curved athletic track or a dodging technique in Kho-Kho or Basekt ball depends upon the successful application of the first law of motion as stated above.

(ii) The second law indicates that a greater force is required to reach a certain speed in a given time if one starts from a stationary position than when he is already in motion. This law is applicable in relay races while exchanging batons in exchange zones. It points to the need for an early start by an exchange runner.

(iii) As a consequence of the third law of motion, a runner is required to push his feet against the ground with great force in order to get a similar forward propulsive force. 5

**22. What is health related fitness and discuss its components.**

***Ans.*** Health related physical fitness is important for all the people throughout the life. Its main aim is to achieve and maintain those specific qualities which enhance the working efficiency of the individual and his standard of health. It can be done through proper nutrition, regular and proper physical activities, effective stress management, control and prevention of diseases and by getting rid of harmful health related habits such as smoking and drinking. – The components are – Cardiovascular endurance, Muscular Strength, Muscular Endurance, Flexibility, Body composition etc. Explain the points. **5**

**23. Explain in detail the Role of Yoga in development of Physical Fitness**

***Ans.***Yoga is derived from Sanskrit word ‘Yuj’ which menas union or to join. It means the unification of atma with Parmatma. Yoga is a true union of our will with the will of God. It is a method by which one obtains control of one’s latent powers. It makes the organs of our body active in their functioning and has good effect on internal functioning of the body. We can define yoga as ‘checking the impulse of mind’ according to Patanjali. It was Patanjali’s Yoga Sutras who refined and systematized yoga. Modern men have adopted yoga to gain peace in mind which ultimately leads to good health and fitness.

**Role of Yoga in Physical Fitness :** The prolonged practice of yoga leads the student to a sense of peace with his/her enviornment. Asanas cater to the needs of every individual according to hisphysical condition and capacity. Various effects of yoga on individuals are stated below :

(1) **Improvement in Concentration Power :** The concentration power is very significant in the field of sports. Concentration is required approximately in all games and sports. In fact, endurance, strength and desire to excel lose their meaning if there is no concentration. For example, when a badminton player displays his concentration his gaze is fixed on shuttle and his energy, tactics and skill produce very good results, for him. Some asanas like Vajrasana, Vriksasana, Padmasana and Siddasana, etc. and Pranayama such as Ujjayi, Kapalbhati and Bhastrika, etc. are beneficial for the improvement of concentration power.

(2) **Improvement in the function of Respiratory System :** Generally, it is observed that an individual sues one-sixth of the full capacity of the lungs. If the complete capacity of the lungs is brought into proper use it can give best results. By doing Pranayama, the lungs’ capacity can be increased which is always beneficial for sports activities related to endurance. Research studies have shown that Pranayama is extremely beneficial for swimmers. The various forms of Paranayam, *i.e.*, Ujjayi, Sheetkari and Bhastrika enhance the function of respiratory system. It also increases will power and vital air capacity of the individual.

(3) **Improvement in Skeleton System :** Research studies have also shown that various yogic exercises enhance the strength of cartilages and ligaments to bear the maximum stress. These yogic exercises also increase the flexibility of joints. These changes are beneficial in various sports activities. These yogic exercises are specially significant in gymnastics, diving and swimming, etc.

(4) **Prevent Sports Injuries :** Sportspersons have a tendency to get injuries such as sprain, strain, muscle cramp or rupture and fractures, etc. Such injuries can be prevented by practice of yogasanas. Therefore, yogasanas should be performed during warming-up or in conditioning period for preventing sports injuries.**5**

**24. Discuss the Types of Ergogenic Aids**

***Ans.*** Mechanical & Pharmacological Aids, Nutritional & Physiological Aids, Psychological Aids, Safe Ergogenic aids (Proper Nutrition, Carbohydrate Loading, Stress Management), Harmful ergogenic aids (Blood doping, Human Growth Hormone, Anabolic steroids). Explain the points referring the text book. **5**

**25. What are the Effect of exercise on Muscular System :**

***Ans:*** Following changes in our muscular system can be seen if exercises are done on regular basis :

(1) **Efficiency in the Movements of Muscles :** The movements of muscles become efficient and smooth. The movements during different activities become attractive.

(2) **Change in Shape and Size of Muscle :** Through regular exercise, the shape and size of muscle is changed. In fact, cells of muscles are enlarged which change the shape and size of muscle.

(3) **Delay Fatigue :** Regular exercise delays fatigue. The fatigue is mainly due to formation of carbon dioxide, lactic acid and acid phosphate. The accumulation of CO2, acid phosphate and lactic acid becomes less in an individual who performs exercise regularly. Hence, fatigue can be delayed if exercises are performed daily.

(4) **Improves Reaction Time :** Due to regular exercise, the speed of nerve impulses increases which ultimately improves the reaction time. These nerve impulses move very quickly through motor nerves from nervous system to muscle fibre. Owing to this the reaction time improves.

(5) **Body Posture Remains Correct :** By doing exercise regularly, the strength of muscles increases, which in turn, keeps the body posture in correct position. The postural deformities do not occur. If there is any physical deformity, it is removed by doing regular exercise. **5**

**26. Discuss the behavior change Technique for Physical Activity**

***Ans.*** Behavioural factors matters a lot in the physical activity and games and sports. The changes in behavioural process having a positive impact in the day to day life of the person. The Techniques - Self monitoring, Goal Seting, Corrective Feedback, Boosting Performance. (Explain the points in detail) **5**

**-X –**

**SAMPLE QUESTIONS NO.4**

**1.** **Elucidate the term measurement in sports. 1**

***Ans.*** Measurement is the way of test & techniques to collect information about a specific skill or fitness level of an individual. It is a way of evaluation that records an individuals response in specific units of measurements.

**2. What is muscles? 1**

***Ans.*** It is a small fibrous tissue that attaches to bones. The numerous designs of muscles and tendons are the foundation of all voluntary movements. It is of two type voluntary & Involuntary muscles.

**3. Define the term sports psychology? 1**

***Ans.*** It involves the study of how psychological factors affect performance and how participation in sport and exercise affect psychological and physical factors.

**4. Define somato type in your own words. 1**

***Ans:*** The structure or build of a person, especially to the extent to which it exhibits the characteristics of an ectomorph, an endomorph, or a mesomorph. The term somatotype is used in the system of classification of human physical types developed by U.S. psychologist W.H. Sheldon.

**5. What do you mean by limbering down 1**

**Ans:** a.Helps your heart rate and breathing to return towards resting levels gradually.

b. Helps to remove waste products from muscles, such as lactic acid, which can build up during vigorous activity (lactic acid is most effectively removed by gentle exercise rather than stopping suddenly)

**6. What is centre of gravity ? 1 *Ans:*** The [point](http://dictionary.reference.com/browse/point) in any [solid](http://dictionary.reference.com/browse/solid) where a single applied [force](http://dictionary.reference.com/browse/force) could support it,the point where the [mass](http://dictionary.reference.com/browse/mass) of the object is equally balanced. The center of gravity is also called the center of [mass](http://dictionary.reference.com/browse/mass). When a man on a ladder leans sideways so far that his center of gravity is no longer over his feet, he begins to fall.

**7. What do you mean by learning ? 1 *Ans:*** Learning is a process, not a product. Learning is a change in knowledge, beliefs, behaviors or attitudes.

It is not something done to students, but something that students themselves do.”

**8. Explain the functions of heart? 1**

**Functions:a.**The function of the heart is to maintain a constant circulation of blood throughout the body. B- It acts as a pump and its action is composed of a series of events known as the 'Cardiac Cycle'. C -In human beings, when the heart is beating normally, the cardiac cycle occurs about 74 times per minute. D-The heart pumps about 6 quarts (5.7 liters) of blood  throughout the blood.

**9. Define gene doping in sports. 1 *Ans:*** Gene doping or transfer is based on the principles of gene therapy. Here a healthy gene is transplanted into cells or directly into the genome to replace a mutated or absent gene. This process of gene doping, in the future, is likely to be used by athletes in an attempt to improve the function of normal healthy cells

**10. What is passive warm up? 1 *Ans:*** In passive warm-up the body temperature is usually increased by some external means, such as wearing heavy apparel, like a sweatshirt, steam bathor consume hot drinks. One of the advantages of using a passive means of warm-up is that energy is not expended in the warm-up activity.

**11. Mention the side effects of prohibited substance in sports. 1**

***Ans:*** Side effects of anabolic steroids-

Psychological effects-Misusing anabolic steroids can also cause the following psychological effects like- aggressive behaviour, mood swings

#### Physical effects-reduced sperm count, [infertility](http://www.nhs.uk/conditions/Infertility/Pages/Introduction.aspx), increased risk of prostate cancer

**12. Discus any three rehabilitation procedure through exercise. 3**

***Ans:*** a. Shoulder exercise-covers the exercises and general approach to shoulder rehabilitation. Exercises for the rotator cuff muscles, deltoid muscles and other muscles which support and surround the joint are covered.

b. Knee, hamstring & thigh-exercises cover early, middle and late stage exercises for rehabilitation from thigh injuries including hamstring strain exercises, quadriceps strain as well as jumpers knee.

c. Lower leg & Ankle exercise-involve rehabilitation exercises for the calf muscles, Achilles tendon injuries and ankle including ankle sprains.

**13. Explain the laws of motion with specific reference to sports 3**

***Ans:*** 1st law: "An object in motion will remain in motion unless an external force acts upon it. "

Ex-In Soccer ,a ball is kicked, if not for the friction of the grass or another player's foot, the ball would continue on forever.

2nd law: "F = ma; acceleration is proportional to force and inversely proportional to the mass of the accelerated object ."

Ex-When driving a car ,the acceleration of the car is proportional to the force exerted by the tires, and inversely proportional to the mass of the car.

3rd law: "For every action there is a equal and opposite reaction."

Ex- Dribble a basketball, the ball collides with the floor, and then the floor exerts a force on it propelling it back into the air.

**14. Find out any three characteristics of childhood stage. 3**

**Ans:** a)Walking and Running-As an infant, baby will learn to roll over, sit up, crawl and pull to a standing position. It's all leading to his first steps, which will occur around his first birthday.

b.Fine motor skills-The small muscles of the hand develop during the early years, which is called fine motor development. Babies use their fingers and hands as they pick up small pieces of food .

c. Curiosity- is the driving force behind most learning that young children do. As an infant, little one will crawl to the objects in his environment that interests him -- even if those are untouchable.

**15. Discus the Roles of Yoga in sports :**

**Ans:** Yoga and sports are often seen in opposition. Yoga is for practice whereas sports emphasis is placed upon training. Yoga is an excellent exercise for the body, mind and soul and helps sports-persons to become more agile, stronger and focused. The prolonged practice of yoga leads the student to a sense of peace with his/her environment. Asanas cater to the needs of every individual according to his physical condition and capacity. Following points justify the role of sports :

(1) **Stimulates and changes emotional attitude :** Yoga has a major relation to have control on our emotions. In the field of games and sports if a player does not have control over his emotions he fails to give out his actual performance. He is not adjusted to outside environment, hostile crowd, spectators which directly affects his performance level. With the help of Yoga one learns to have patience and have control on one’s emotions which results in courage, positive thinking and mental equilibrium.

(2) **Helps you feel relaxed :** A regular practice either before or after sports and games helps you to feel relaxed, at ease and happy. After vigorous workout an individual feels tired and his muscles are stressed and strained. We can overcome fatigue with the help of yoga asanas by relaxing body and mind. **3**

**16. Find out various types of transfer of learning. 3 Ans:** Positive transfer - when learning in one context enhances a related performance in another context.

Ex-basket ball player can easily play Hand ball.

Negative transfer - when learning in one context undermines a related performance in another context. A squash player is to practice Tennis.

Applicational transfer- When previous learning is applied to lfe situation for improvement.

**17. Mention how smoking affects the human Body**

***Ans.*** (a) Regular and heavy smoking increases the heart rate which leads to the palpitation of heart.

(b) Heavy smoking is the major factor causing lung cancer, cancer of the mouth and tongue.

(c) Smoking habit leads to chronic bronchitis. (d) Smoking may also cause coronary artery disease.

(e) Cigarette smoking is a leading risk factor for the cancer of oesophagus, stomach, pancreas and the cervix.

(f) Cigarette smoking by pregnant women has a harmful effect on the foetus in the womb. **3**

**18. Outline the organization and constitution of CBSE Sports Programme**

***Ans.* Organisation and Constitution of CBSE Sports :**

(1) The chairman, CBSE shall be the chairman of the sports committee.

(2) The headquarters of the sports committee shall be the Central Board of School Education, Delhi.

(3) For ensuring the smooth and efficient conduct of Inter-school Sports and Games, the activities are organised under the general directions of the CBSE and in conformity with its policies.

(4) CBSE organises the sports and games tournament at cluster level, zonal level and national level in various sports and games annually.

**19. Value Based:- 3**

***Ans.*** Sunny is a good shot putter. His height was 5 feet 6 inches with a body weight of 75 kg. His body was muscular. He used to put the shot with Perie O’ brien technique. For the last one year his performance was

stable even after his best efforts. He met our new physical education teacher to discuss about the root cause of his problem. He saw his technique of putting the shot. He was not satisfied with his technique. He suggested that this technique is not suitable for the shot statured individual. He told him to practice disco-put technique instead of Perie O’brien technique. Approximately, after 6 months’ practice his performance was improved by 1.70 metre. In this way, biomechanics helped him a lot.

Based on the above passage, answer the following questions:

1. What qualities did sunny posses? 2. Which part of the Bio-mechanics applied here

3. What values of the new physical education teacher did impress you?

Ans:- 1. Learning attitude & hard work, 2. Projectile and moment sped , 3. Application of skill in a perfect method and the response to the student with an attitude of learn.

**20. Define warm up and find out the physiological benefits of warm up. 1+4**

***Ans:*** A warm-up generally consists of a gradual increase in intensity in physical activity ,[joint mobility](http://en.wikipedia.org/w/index.php?title=Joint_mobility&action=edit&redlink=1) exercise, and [stretching](http://en.wikipedia.org/wiki/Stretching), followed by the activity. Warming up brings the body to a condition at which it safely responds to nerve signals for quick and efficient action.

Increased speed of contraction and relaxation of warmed muscles

Dynamic exercises reduce muscle stiffness

Greater economy of movement because of lowered viscous resistance within warmed muscles

Facilitated nerve transmission and muscle metabolism at higher temperatures; a specific warm up can facilitate motor unit recruitment required in subsequent all out activity

Increased blood flow through active tissues as local vascular beds dilate, increasing metabolism and muscle temperatures, Allows the heart rate get to a workable rate for beginning exercise

Mentally focused on the training or competition.

**21. Write short note on Olympic Oath, Olympic motto, Olympic Symbol/Flame, & Olympic flag. 5**

***Ans: Olympic oath****-*"In the name of all the competitors, I promise that we shall take part in these Olympic Games, respecting and abiding by the rules which govern them, committing ourselves to a sport without doping and without drugs, in the true spirit of sportsmanship, for the glory of sport and the honor of our teams."

**Olympic motto**- The Olympic motto is made up of three Latin words -
**Citius - Altius - Fortius.** These words mean **Faster - Higher - Stronger.**
It was the Dominican priest Henri Didon who first expressed the words in the opening ceremony of a school sports event in 1881. Pierre de Coubertin, who was present that day, adopted them as the Olympic motto. **Olympic Flame**- The tradition of lighting an Olympic Flame comes from the ancient Greeks. During the Ancient Olympic Games, a sacred flame was lit from the sun’s rays at Olympia, and stayed lit until the Games were completed. This flame represented the "endeavor for protection and struggle for victory." It was first introduced into our Modern Olympics at the 1928 Amsterdam Games. Since then, the flame has come to symbolize "the light of spirit, knowledge, and life."

**Olympic Symbol/Emblem-** It comprises of five interlinked rings or circles to represent the sporting friendship of all people, the rings also symbolise the five continents *i.e.,* Africa, America, Asia, Australia and

Europe. Each ring is of a different colour *i.e.,* blue, yellow, black, green and red. the colour of each ring was proposed by be Coubertin himself. The colours of the rings represent the following continents :

1. Blue ring represents America continent.

2. Black ring represents Africa continent.

3. Red ring represents Australia continent.

4. Yellow ring represents Asia continent.

5. Green ring represents Europe continent.

The Olympic motto is inscribed under the emblem which consists of three Latin words :

CITIUS (Faster), ALTIUS (Higher), FORTIUS (Stronger)

In the literal meaning, the words represent the athletic goals—running faster, jumping higher and throwing farther. (A figure can be made for a better answer)

**Olympic Flag-** The flag was designed by Pierre de Fredy, a French man, who took about one year to complete it and made of White silk Background indicates peace, prosperity, progress contains 5 interconnected rings , represents the 5 continents. The colours of the rings are Blue, black, red, yellow, green, represents America, Africa, Australia, Asia, Europe. Citius Altius and Fortius to be written. Created in 1913 by Baron Perie de coubertin, solemnly inaugurated in paris in 1914, hoisted first time at the 1920 Antwerp Olympics.

**22. Define Human Anatomy & find out its importance in Physical education. 1+4**

***Ans:*** Anatomy (from the Greek word **anatome,"dissection**"), is a branch of natural science dealing with the structural organization of living things. It is an old science, having its beginnings in prehistoric times. dissection of all or part of an animal in order to study its structure. Anatomy is the study of structure of human body. It explains all the details related to human structure.In other words, every one must study anatomy in order to live a healthy life.

Importance-a. The study of anatomy and physiology are essential to know physical education and sports from scientific point of view.

b. A sport trainer should have an ample knowledge of anatomy because it is only with the knowledge of anatomy, the sport trainer can improve the performance of his player by knowing the effects of exercises on the various bodily parts of his player.

c. It helps in evaluation of a player’s capacity. D. It helps in positioning of body during training session.E. It helps a player to choose any sport event as per his bodily capacity.

**23. Mention the Doping control Procedure in detail. 5**

***Ans:*** Drug-free sports environment is the need of the hour now. The stages involved in doping control procedure are – selection of athlete, notification, reporting to the doping control station, selecting the sample collection vessel, provision of urine sample, selecting the sample collection kit. splitting the sample, sealing the urine sample, measuring specific gravity, verification of the doping control form, laboratory process for analysis of the sample. Explain any five.

**24. Discuss the different guidelines at different stages of growth. 5**

***Ans.*** Mention the different stages of Growth – 1. Infancy (1 to 3 years), 2-Early Childhood (3 to 8 years),

3-Later Childhood (8-12 years), 4-Adolescence (13 to 19 years),

5-Adulthood (above 19 years).

The growth systems and the exercises required for the proper growth to be mentioned – refer the book for the details.

**25. Discuss the principles involved in Physical Activity Environment.**

***Ans.*** Proper environment for a beneficial physical activity is required. The principles to be followed:- location of the place of physical activity, Polluteless environment for physical activity, Proper facilities for physical activities, Proper playgrounds and courts, Proper climatic conditions, Existing infrastructure should be well-maintained, Physical activity environment should be safe and clean, Drugs free environment, Physical activity environment should be attractive and enjoyable, Good social environment. (Explain any five) **5**

**26. Discuss the sports awards in detail. 5**

***Ans.* Rajiv Gandhi Khel Ratna Award :** Rajiv Gandhi Khel Ratna Award is presented for the spectacular and most outstanding performance in the field of sports to the sports-persons in a year (April 1 to March 31). This award is presented to one sportsperson from individual sports but it can be given to more than one person in case of team games. The selection committee do not have discretionary power to select only a few members of a team for the award. This may disrupt the team spirit. However, if in the opinion of the selection committee, there is no performance deserving this award in a particular year, it may not be given in that year. This award consists of the following :

(1) A cash amount of Rs. 7·5 lakh exempted from income tax and wealth tax in the year in which it is disbursed. In case the award is given to more than one sports-person of the team, the amount shall be divided equally *i.e.,* Rs. 3·75 lakh for each sportsperson.

(2) A scroll of honour of each sportsperson.

(3) One splaque to each sportsperson.

The selected sportsperson for this award is also provided a blazer, a tie and the reimbursement of TA/DA at the rates decided by the department for coming to Delhi to receive the award.

The amount of award may be given either in cash or in the form of saving certificates or otherwise, as deemed fit by the Government. The achievements in the sports and games which are included in Olympic Games. Asian Games, commonwealth Games and in billiards, snooker and the chess shall be eligible for consideration for this award.

**Dronacharya Award :** This award is given to honour those coaches who have successfully trained sportspersons or team and enabled them to achieve outstanding results in international competitions. This eminent award was started in the year 1985 with the objectives to honour the contribution and role of coaches and trainer on a persistent basis leading towards apex performance by sportspersons trained by them. To motivate the trainers and coaches to work with more focus and dedication and to train sportspersons in order to help them in achieving success in international level competitions. It is given to coaches for their hard work to produce top level sportspersons. This award is named after the legendary guru or teacher ‘Dronacharay’. In this award, the coach is given five lakh rupees cash, scroll of honour and statue of guru Dronacharya. It is given in three different categories i:e Individual event, Team event & Indigenous sports category. Some of its recipients were Karan sing, Bobby George (Athletics), D.P. Azad (Cricket), Rajinder Sing (Hockey), Saeed Mohammuddin (Football), Sham Sunder Rao (Volleyball).

**Arjun Award :** Arjun award is the supreme honour, which is awarded to sportspersons by the Govt. of India. This award is given to such sportsperson who achieves extraordinary position during that year and who has been giving extraordinary performance during the past three years. This award was started in 1961. Arjun award includes a statue of Arjun (Mahabharata) made of bronze, d diploma and 5 lakh rupees cash. This award is given in the memory of Arjuna of Mahabharata. The selection committee for Arjun award will be headed by the Retired Judge of supreme Court/High Court. It wil consists of sportspersons of eminence (Olympions or previous Rajiv Gandhi Khel Ratna or Arjuna Awardees), 3 sports journalists/Experts/Commentators, 1 sports person of eminence/sports administrator/sports expert belonging to parasports, 1 sports administrator, 1 ex-officio member (Director General, Sports Authority of India and one Member secretary, Joint secretary (Sports), Dept. of Sports. The nominations for the award will be send by the National sports federation, Indian Olympic association to the Ministry of Youth Affairs by 31st May every year. It is not be given second time to one sports person, it can be given posthumously. The decision of the Govt. of India in this regard is final and binding.

**-X –**

**SAMPLE QUESTION NO.5**

**1. Mention the adolescent problems. 1**

***Ans:*** a. Physiological problem- In this stage suddenly there are changes in internal organs and experience

functions. Rapid changes takes place in breathing system, excretory, digestive & other system in the body.

b. Problems of self support- An adolescent does not want to get others support and want to depend on himself to rise in life. Other problems are- Physical problems, Emotional problems, Fitness problem, Aggressive behavior.

**2.** **Explain the law of Inertia with application to sports. 1**

***Ans:*** Law of Inertia- objects at rest will stay at rest unless acted upon by an unbalanced force.

Exam.- The force felt by a catcher when the ball hits his glove is an example of the law of intertia- the ball intends to keep moving but the glove and the force applied by the catcher's hand in the glove prevented it from moving any further.

**3. Find the difference between growth and development in sports. 1**

***Ans:*** Growth is physical changes whereas development is overall development of the organism.

a) Growth is change of physical aspects of the organism. Development is overall changes and progressive changes of the organism.

b) Growth is the change in shape, form, structure, size of the body. Development is structural change and functional progress of the body.

**4. Discus the procedure of skin fold measurement 1**

***Ans:***  This test estimates the percentage of body fat by measuring skin fold thickness at specific locations on the body. Skinfold measurements are generally taken at specific sites on the right side of the body. The tester pinches the skin at the location site and pulls the fold of skin away from the underlying muscle so only the skin and fat tissue is being held. Special skinfold calipers are then used to measure the skinfold thickness in millimeters. Exa. Triceps - The back of the upper arm

Pectoral - The mid-chest, just forward of the armpit,Subscapula - Beneath the edge of the shoulder blade.

**5. Write a brief note on types of force with reference to sports. 1**

***Ans:*** The force responsible for the change in the direction of a body in turning motion is called the centripetal force and always has a direction towards the center of the circular path. In order for circular motion to be possible, some resultant force must be acting on the body with a direction always to the center of the circle.Exa- discus throw or cyclist in Velodrome arena.

**Centrifugal force** is a fictitious force associated with a rotating system, such as a merry-go-round on a playground. When the system stops rotating, the force seems to disappear. Isaac Newton’s First Law, “that an object in motion tends to stay in motion with the same speed and in the same direction unless acted upon by another force. Exa-Hammer throw.

**6. Discus the Meaning of Yoga 1**

***Ans:*** ‘Yoga’ means the individual should be united to or be in communion with the God. Yoga means union, join, yoke, bind, attach or connect. It also means the unification of physical, mental, intellectual and spiritual aspects of human being. The following definitions can be beneficial to understand the meaning of yoga : “Checking the impulses of mind is Yoga.” **—Patanjali.** “Yoga is attaining the pose.” **—Mahrishi Ved Vyas.**

“Yoga is spiritual Kamdhenu.” **—Swami Sampurnanand. In Bhagwad Gita Lord Krishna** said, ‘Skill in actions or efficiency alone is Yoga’.

It has given stress on Karma Yoga, the individual should perform his duties well without thinking about its benefits. Yoga is also defined as a state of higher powers and potentialities and even the ultimate state of silence.

**7. Explain in brief management of adolescence problems 1 *Ans:*** a) Guidance of parents, b. To provide suitable environment, c. Education for motor development, d. Sex education, e. Education of psychology, f. Religious & moral education,

g. Adequate freedom & responsibility. (Explain)

**8. Mention the Parts of Ashtang Yoga. 1**

***Ans.* Parts of Ashtang Yoga :** (i) **Yamas :** Moral codes of universal nature.

(ii) **Niyamas :** Personal conduct with physical and mental discipline. (iii) **Asanas :** Practice of posture.

(iv) **Pranayama :** Breath control (v) **Pratyahar :** Develop inner mental strength

(vi) **Dhyana :** Meditation (vii) **Samadhi :** Contemptations and reflections.

**9. Define Measurement 1**

***Ans:* Measurement :**According to **H. M. Barrow**, “Measurement refers to the process of administrating a test to obtain quantitative data.”

According to **Barry L. Johnson** and **Jack Nelson,** “Measuremnet aids evaluation process in which various tools and techniques are used in collection of data.”

So, measurement is such a process through which our level of performance, fitness level, ability, knowledge, personality traits and skills are measured with the help of various standard tests.

Measurement is important for : (i) giving motivation,

(ii) Knowing the abilities and capabilities.

**10. Mention the components of Blood Plasma 1**

The component of blood plasma are—

(i) Water (ii) Proteins such as albumin, fibrinogen, etc.(iii) Fats

(iv) Carbohydrates (iv) Mineral salts such as sodium, calcium, potassium, magnesium, Phosphorus, etc.

**11. What are the Benefits of warming up 1**

(i) It regulates the cardiovascular system for the coming needs.

 (ii) neuromuscular co-ordination increases with warming up and also enhances nervous

conductivity. (iii) It increases the body temperature so that muscle fibres can be easily stretched.

(iv) It tones up the muscles and helps to avoid injury to the muscles.

**12. Define psychological health and find out various indicators of psychological health. 3**

***Ans:*** Health psychology is a specialty area that focuses on how biology, psychology, behavior and social factors influence health and illness. Various Indicators are- a. Go to bed time early at night and get up early which will make you happy. b. Avoid narcotics, cocaine & other banned substances

c.Eat plenty of green vegetables 7 other diary food . d. take a warm bath or shower before going to bed.

e. Play light music or instrument for better relaxation.

**13. Explain two testing methods to detect prohibited substance 3 *Ans:*** Urine Testing-. A sample is provided and split into two bottles and sealed by the athlete. A code number will be attached to the bottle and recorded on the relevant paperwork to ensure the correct result is given to the athlete whilst retaining their anonymity. If it is positive, the relevant sporting organisations are notified whose responsibility it is to decide what penalties or bans are to be imposed.

Blood testing- is used in the detection of drugs such as [**EPO**](http://www.teachpe.com/drugs/epo.php) **and** [**artificial oxygen carriers**](http://www.teachpe.com/drugs/doping.php) by testing the blood count. Over time a "blood profile" of an athlete can be built up to help determine average readings for each individual. The same anonymity and representative procedures apply as for urine sampling.

**14. Explain various responsibilities by the athletes towards anti doping policies. 3**

***Ans:*** a.Be available for Sample collection and provide accurate and up-to-date whereabouts information for this purpose. b. Be knowledgeable of and comply with all anti-doping policies and rules applicable to them

c. Assist, cooperate and liaise with the Anti-Doping Organisations in relation to the conduct of any investigation or hearing into an alleged anti-doping rule violation, in a confidential manner.

**15. How can health threat be prevented through lifestyle change? Discuss any three.3**

***Ans.*** Prevention of Health Threats:- Health threats like cancer, diabetics hypertension can be prevented through Regular Exercise, Healthy eating habits, Sufficient sleep, prevention of injuries, Maintaining a healthy weight etc. (explain any three)

**16. What is Vital Capacity 3**

***Ans.* Vital Capacity :** It is the volume of air that can be breathed out by forced expiration, after taking a deep breath or forced inspiration. It is about 4800 cc in males and about 3100 cc in females and can be measured by an instrument called Spirometer. It is influenced by the following factors :

(i) **Size :** It is directly related to the size of an individual. (ii) **Sex :** It is less in females.

(iii) **Posture :** It is greater in the upright position and alter after changing the posture.

(iv) **Disease :** In many diseases such as pneumonia, T.B., etc. it is reduced.

**17. Mention the Heart Rate in our day to day life. 3**

***Ans.* Different of Heart Rate :-** Number of contractions done by heart in one minute. The resting or basal heart rate is 72. The heart rate increases due to various factors but exercise or physical activity makes it fast in short period. The intensity (speed of work) ; volume (duration of work) also brings in heart rate. For example :

(a) When we are at complete rest - heart rate is approx. 72 beats/min.

 (b) When we are walking - heart rate is approx. 100 beats/min. (c) When we are jogging - heart rate is approx. 120 to 140 beats/min. (d) When we are fast running - heart rate is approx. 160 to 180 beats/min.

(e) When we are fast running for longer duration - heart rate is approx. 200 and above beats/min.

**Manual procedure to note heart rate :** In this procedure the index finger is slightly placed over any of the arteries like at wrist (Radial artery), at elbow (Brachial artery) at neck (Jugular or Carotid artery), at groin (Femoral artery). Feel the pulse putting slight pressure by the finger. Notice and count this for 15 seconds and then multiply the counted beats by 4, this will be the heart rate of an individual in one minute.

**18. Find out any three physical characteristics of Mesomorph. 3**

***Lean Figure*** – Mesomorphs have lean figures that clearly define their muscle groups, easily observed in the contours of their skin. ***Well Built*** – With clear muscle definition, broad shoulders and a narrow waist, mesomorphs appear to be naturally well built. ***Strong Legs*** – Mesomorphic types have very strong legs. This is necessary to support their large muscular body structures.

**19. Value based- 3**

Ms. Dutee Chand an upcoming female sprinter from Odisha has been banned by IAAF due to presence of more Hyperandrogeneism in the body. After appeal in the court of Arbitration for Sports (CAS), it cleared the sprint queen to compete again in National & International level due to unscientific & unethical attitude of IAAF.

In reference to the aforesaid incident answer the following.

a) “The verdict of CAS upholds the gender equality in sports”. Justify

b) What should be the role of IAAF towards the drug free sports?

c) What value Dutee Chand teaches to the sporting community?

***Ans:*** a-Yes, the decision of CAS is upholds the gender equality in sports, when a sports person don’t know

his/her hereditary body strength and capacity and not tested positive in the prohibited substances then where the question of male and female is arises.

b. The IAAF is proud of its position at the forefront of the global fight against doping in sport, and is resolutely committed to athletics, and to the preservation of a zero-tolerance policy with respect to doping.

c. Without loosing hope, She fought like a true fighter in legal way and finally her all out effort towards Athletics has been paid off and came back successfully.

**20. Explain any five components of Wellness. 5**

***Ans:*** Wellness is a state of being well, a way of life, a choice, and a lifestyle designed to achieve a person's highest potential for well-being. Components-Physical wellness, social wellness, emotional wellness, spiritual wellness, Nutritional wellness, financial wellness, Intellectural wellness, Environment wellness. (Explain any five)

**21.** **Define Physical education and explain its aims & Objectives in detail. 5**

***Ans:*** Physical Education and its Aims & Objectives:- Physical Education is and educational process that has its aim to the improvement of human performance and human development through the medium of physical activities within an educational setting. True Physical Educators is on the body and through the body . According to J.B. Nash Physical Education is that field of education which deals with big muscles activity and their related responses.

**Aim of Physical Education:-** The aim of physical education is the wholesome development of an individual, or a complete living. According the J.F. Willims, Physical education should aim to provide skilled leadership, adequate facilities and ample time for the individual and the groups to participate in activities that are physically wholesome, mentally stimulating and socially sound. The aim of physical Education must be to make every child physically, mentally and emotionally fit and also to develop in him such personal and social qualities as will help him to live happily with others and build him up a good citizen.

**Objectives:-** The objectives are Physical Development (Proper growth & Development, Proper functioning of various systems of the body), Social Development (Developing qualities of sympathy etc., Becoming worth member of home or society), Mental Development (Alertness of mind, deep concentration), Moral Development (Development of sportsmanship, Developing leadership qualities), Organic Development, Emotional Development, Neuro-muscular development & Development of health

**22. What do you mean by positive sports environment? Discuss the elements required for a positive sports environment. 5**

***Ans:*** Meaning & Importance- For the promotion and encouragement of sports and games the appropriate sports environment is always required. Sports and games cannot be flourished in the absence of appropriate sports environment. Elements;- Sports stadiums or sports complexes, Playground/courts, sports equipments, training equipments and protective equipments, Normal climatic conditions, Culture and tradition of society, attitude and behaviour of officials and spectators, attitude and behavior of parents and players, drugs, tabacco and alcohol free environment, - explanation any five.

**23. What are the symptoms of overload and how to overcome it. 5**

***Ans:*** A systematically, applied, gradually progressive training load is required for an athlete to adapt and improve performance. In order to adaptation to take place adequate recovery strategies must be utilized. Overload occurs as a result of a training schedule that is spontaneously enhanced, lasts for sustained periods of time and is performed at high volume or high intensity or both without sufficient recovery period.

**Symptoms of over load:-** ***a) Psychological Symptoms*** like increased irritability, oversensitivity to criticism, dullness, anxiety, depression, insecurity, change in personality etc.

***b) Performance Related Symptoms:-*** i) Movement coordination (tensed movements, disturbance in rhythm etc), Competitive qualities (fear of competition, confusion in competition, Increasing tendency to abandon the struggle etc), Somatic functional symptoms ( loss of sleep, body weight, lack of appetite, digestion Problems, joint aches and pains, night sweating, impaired muscular strength etc.)

**How to overcome Overload:-** The problem of over load can be solved or tackled best by the endeavours of the physician, coach, athlete and parents. The tips are Plan the training, Nutrition, Psychological Strategies, Social Interactions, Medical Aids, Physical Therapy etc. (Explain it in your own words)

**24. Explain in detail the Ancient Olympic Games 5**

***Ans.*** The orgin- it is started in 776 B.C, Harcules, the son of God zeus started the games & sports in the honour of his father, it continued approximately one thousand years when it is stopped in 394A.D The course of the Ancient Olympic Games, Rules for competitions, Opening & Closing Ceremony, events conducted, Awards and honours will be explained in detail – Refer the text book for detail.

**25. Explain the Skill, Technique and Style in detail 5**

**Skill:-** A skill is the ability ot perform a whole movement. Skill can be defined as automatisation of motor action. Skill donets the level of effectiveness with which a movement or motor action can be performed. A skill can also be defined as any action that is learnt for a purpose and is needed to take part in activities. The skills are classified into open skills, fine skills, interactive skills, complex skills, etc.

**Techniques:-** Techniques are the basic movements of any sport or event. For ex, a block start in a 100 mt. reace is technique. In fact technique is the way of performing a skill. When developing a skill, a performer will attempt to improve the aspects of his technique. A technique involves scientific and economical methods adopted to achieve top performance in sports competition.

**Style:-** A style is an individual’s expression of technique in motor action. No two sports persons are alike in different factors which determine motor action. Therefore each sports person due to his specific or particular psychic, physical and biological capacities realizes the technique in a different way. It is called style.

**26. Explain any five Physiological benefits of Asanas 5**

***Ans.*** Bones and joints become strong, muscles become strong, circulation of blood becomes normal, respiratory organs become efficient, efficiency of digestive system is increased, nervous system is calmed and strengthened, glandular activity is stimulated and regulated properly, Enhance the efficiency of excretory system. Immune system is strengthened.

**-X –**

**EXTRA QUESTIONS FOR REFERENCE**

**-X –**

**1. Enlist the performance enhancing substances.**

***Ans:*** Perfomnace enhancing substaces:- Doping can be classified into the following two types: 1. Performnace enhancing substances, 2. Physical methods. Perfomace enhancing substaces are.

1) Stimulants:- Stimulants are related to a group of drugs that enhance alertnes and physical activity by increasing heart and breathing rates and the functions of the brain.

2) Anabolic steroids:- Anaboli steroids stimulate the growth of muscles and help the athletes to train harder and recover rapidly.

3) Peptide Harmones:- peptide harmones are substances that are produced by glands in the body.

4) Narcotics:- Narcottics are used to reduce or eliminate pain from injuries or allow athletes to do persistent efforts for a longer time.

5) Cannabinoids:- Cannabinoids are psychoactive chemicals that cause a feeling of relaxation.

6) Diuretics:- Through diuretics are non-performance enhancing drugs but these are used in sports remove fluids from the body particularly water.

**2. Mention Some of the important institutions for Physical education of the Country**

***Ans.* Some of the important institutions for Physical education**

(i) LNUPE (Lakshmi Bai National University of Physical Education) at Gwalior.(ii) NSNIS (Netaji Subhash National Institute of Sports) at Patiala, Kolkata, Bengaluru and Gandhi Nagar. (iii) YMCA College of Physical Education at Chennai. (iv) HVP Mandal Degree College of Physical Education, Amravati. (v) LNCPE (Lakshmi Bai National College of Physical Education) at Thiruvananthapuram.(vi) Govt. College of Physical Education, Patiala, Hyderabad, Jodhpur.

(vii) C. P. Degree College of Physical Education, Baruch. (viii) B. R. Ambedkar Physical Education College, Muzaffarpur. (ix) Shahid Sanshi Ram College of Physical Education, Kharar (Punjab).(x) Indira Gandhi Institute of Physical Education and Sports Sciences, Delhi. (xi) Training Institute of Physical Education, Mumbai.

**3. Mention the side effects of Alcohol**

***Ans.*** Alcohol reduces the ability of a person to make decision. One has poor judgement and decision making ability *e.g.* a tennis player under influence of alcohol can not judge the ball properly and hence cannot decide quickly where to hit. It is difficult for a drunken player to concentrate on the game and to remember the techniques, strategies and tactics of the game. A sportsman tends to be aggressive after intake of alcohol and plays a rough game. Physical fitness decreases and chances of Injuries increase a great deal. Hence, looking at all the ill effects that consumption of alcohol has, it is wish to avoid consuming liquor in any form.

**4. Discuss about Waist-Hip-Ratio**

***Ans.* Waist-Hip-Ratio (WHR) :-** WHR means ‘Waist-to-Hip-Ratio’ this is the ratio of circumference of waist to that of the hips. **Test Administration :** It is calculated by measuring the smaller circumference of the waist (above the belly) and dividing by the hip circumference at the widest part of buttocks/hip. The ratio is applied both to men and women.

**Evaluation of Test :** WHR is good indicator of health and attractiveness of a person. The ratio around 0·7 is considered good and health among women, whereas the ratio at around 0·9 is considered health among men. These persons have less chances of health problems like diabetes, cardiovascular disorders, cancers etc. The persons will also look attractive.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Group** | **Excellent** | **Good** | **Average** | **Poor** | **Bad** |
| Female | 0·70 | 0·75 | 0·80 | 0·85 | 0·90 |
| Male | 0·90 | 0·95 | 1·00 | 1·05 | 1·10 |

**5. Discuss the types of Physical Activities**

***Ans.*** Lifestyle Physical activities, Vigorous Physical activities, Muscles strengthening Physical activities, Flexibility enhancing Physical activities (/Explain these points in detail referring the text book)

**6. Discuss the special Olympic Bharat in detail**

***Ans:*** Formation, Mission, vision, oath, Goal achievements & Benefits to be mentioned.

**7. Physical activities plays a major role in shaping of a all round bodily movement – justify**

***Ans:*** Life Style Physical Activities, Vigorous Physical Activities, Muscles Strengthening Physical Activities, Flexibility Enhancing Physical activities - Explanation in brief.

**8. Mention three Importance effects of Yoga**

***Ans.* Important effects of Yoga :** (i) **Increased willpower and confidence :** Regularity plays an important role as it takes time to develop this major quality. All these yogic asanas aim at purification, nervous control and co-ordination and attention increases which help in building up of confidence at work. (ii) **Improves health and reduces obesity :** Everyday practice of yoga for about 30 minutes leads to perfect health and fruitful life. Only yoga can bring peace and happiness to life. Reducing weight is not a day’s work, it needs lot of effort and strong will. Yoga asanas and Pranayama if practised regularly reduce obesity and make the person flexible and healthy. iii) Reduce Mental Tension : Yoga can help in reducing the tension. It is a well-known fact that most of the persons remain under stress and tension. Asanas, Dhyan are beneficial for relasing stress and tension. Apart from these cure & prevention from diseases, Keep the correct posture of body, provides relaxation, Spritiual development , Physical purity may also be mentioned with explanation.

**9. Briefly explain the Oxygen debt and Second Wind.**

*Ans:* **Oxygen Debt**:- means when the demand for oxygen is greater than the supply. It means that when your body works hard you breathe a lot of oxygen but you cannot absorb enough to cope with the level of activity. The ATP (Adinosine Triphosphate) is the source of energy for muscular contraction. There are three main sources, which provide a continual supply of ATP, 1. Creatine phosphate, 2. Glycolysis, 3. Oxidative phosphorytation (Critic acid), When we start exercise during the few seconds of muscular contraction the reserved ATP is used immediately, During this period ADP(Adinosine diphosphate) level increase. If oxygen supplied to muscles become exhausted (during heavy muscular activity), the pyruvic acid formed in glycolysis is converted to lactic acid. The accumulation of latic acid in the muscle causes fatigue. At this stage muscle is in oxygen debt. A complete rest helps in removing oxygen debt. During the rest, ATP is again stored in the muscles for activities. Generally lactic acid is removed approximately in one hour if cooling down is performed properly. It may also take two hours or more if cooling down is not done with gently exercises.

**Second Wind.:-** When we usually do vigorous activities or long time activities after sometime we feel a sense of discomfort like Breathlessness, pain in chest, headache pain in the muscles, which are involved in that activity, feeling of dry throat etc. We think that activity should be stopped immediately, But if we makeup our mind to continue and continue that activity then we feel relaxation and comfort. This stage is termed as second wind. So the phenomenon of recovery from discomfort at early stage is known as second wind. It usually happens with the beginners not with the experienced athletes.

**Changes in our body due to second wind. :-** Breathlessness Disappears, Muscles become Normal, Changes in blood circulation system etc. can be explained briefly**.**

**10. Explain Plateau and Cause of Plateau.**

***Ans:*** When we learn any skill in the field of sports, we find rapid progress in the beginning, but after some time, the progress stops itself. We do not get any progress after training. It seems unless to do further training. Our progress ceases. The stage is called ‘Plateau of learning’ in fact plateau is a stagnation or temporary decline in learning process or in performance or training. **Causes of plateau;-** Deficiency in physiological power, Competition schedule, less interest, Fatigue or staleness, Environmental pollution, lack of concentration, Too rapid progress at the start etc. (explain in brief).

**Elimination of the Plateaus:-** The Psychological method such as motivation, will power, firm determination and creativeness etc can reduce the stage of plateau.

**11. What is emotion? Explain its concept and controlling of emotion.**

***Ans:*** the Emotion is derived from a latin word ‘Emovere’ which means to stirrup, to agitate or excite, Emotions play a very significant role in human life. These are related with internal needs of human beings, Emotions stimulate the mind and as a result emotions become intense. According to Mc Dougall “Emotion is a moved or stirred up state of feeling in an individual linked with some tendency. There are physiological changes associated with each emotion frequently of a muscular or glandular nature”. In simple words, emotion is any strong agitation of the feelings actuated by experiencing love hate, fear etc. and usually accompanied by certain physiological changes.

**Methods of controlling of Emotions:-** Control your breathing, Meditation, Repression, Redirection, Exercise, Avoid the situation, Introspection etc. (Explain it briefly.

**12. What are the factors affecting the Transfer of learning.**

***Ans:-*** There are some factors which affect the transfer of learning like Learner’s will, Learner’s Intelligence, Learner’s personal achievement, Identical Subject Matter, Training in transfer, Depth of Original understanding (Explain it in brief as per the marks)

**13. Explain the Mechanism involved in Respiration.**

***Ans:-*** Mechanism of respirations a process by which the lungs expand to take in air and after that contract to expel the air outside. The main muscles of respiration in normal breathing are the intercostals muscles and diaphragm. Mechanism of respiration involves inspiration and expiration, which are stated below. **Inspiration:-** When we inspirate or inhale the intercostals muscles contract actively to expand the chest cavity. Ribs and sternum move upward and outwards. **Expiration;-** When we exhale or expirate the intercostals muscles relax. Ribs and sternum move downward and inwards.

**14. Mention the properties of Muscles.**

Ans: The muscles have some specific properties that enable them to perform various functions:- a) **Excitability** refers to the ability to activate muscles thereby causing it to contract, b) **Contractility** is the ability to the muscles to shorten forcibly when it is stimulated adequately, c) **Elasticity** is the ability of muscle tissue to return to its normal resting length and shape after being stretched, d) **Extensibility** is the ability of the muscle to be stretched or extended which may be explained as per the marks.

**15. What is Limbering Down, What are the importance of Limbering Down.**

Ans:- Cooling down/limbering down is also called warming down. To bring the body in normal state after any competition or training is called cooling down. Cooling down allows the body to transit gradually from an exertional state to a resting or near resting state. The stretching exercises of Hamstrings, Chest, Glutes, Quadriceps, Triceps/shoulders can be helpful for cooling down. Importance:- a. Body temperature becomes normal, Proper removal of waste products, Decrease in tension, reduces the chancs of dizziness or fainting, Supply of oxygen, decreasein the level of adrenaline in theblood, muscles do not remain stiff, heart reate returns to initial stage etc to be explained.

**-X –**

**UNSOLVED QUESTION PAPER FOR YOU**

**PHYSICAL EDUCATION (Class: XI)**

**CBSE MODEL QUESTION PAPER – 2015**

**Max Time: 03 Hrs Max Marks: 70**

** Question paper consists of 26 questions.  All questions are compulsory**

** 01 Mark question must be answered in 10-20 words.03 Marks question must be answered in 30-50 words.  05 Marks question must be answered in 75-100 words.**

1. What do you mean by Objective of Physical Education 1

2. How does Physical Education helps to make carrer to its followers? 1

3. Write a brief note on Ancient Olympics. 1

4. Justify Olympic Symbol 1

5. Discuss Obesity is the cause of concern 1

6. What is ergogenic aid in doping 1

7. Explain Sports Psychology 1

8. Define second wind in your own words 1

9. Simplify the term overload in sports. 1

10. Write in brief the importance of cooling down. 1

11. Explain one principle of sports training 1

12. Explain three components of positive life style 3

13. Find out the role of Pranayam in sports 3

14. List down the process of life style changes to prevent the health threats. 3

15. Explain in brief on the development of Yoga in Indian History 3

16. Analyse the Importance of Test & Measurement in sports. 3

17. Find out the procedures to be adopted to measure height, weight and skin fold3

18. Differentiate between growth & development 3

19. Value Based.

Kick-Boxing and Taekondo are group fitness workouts that combine martial arts maneuvers, boxing moves and traditional group exercise activities. Participants execute a variety of punches and kicks, building movement combinations that involve the entire body. **Based on the information above, answer the following questions:**

1. What are kick-boxing and taekondo? 2. Are they effective from of exercise?

3. Write two values, one learns by involving in kick-boxing and taekondo workouts?3

20. List down the development of Physical Education in post independence era 5

21. Explain the role of IOA and write in brief any three National Sports Award of Our Country. 5

22. What should be the role of Athletes responsibility in doping and mention various doping control procedure.5

23. Define sports psychology and list down function of respiratory system at the time of exercise 5

24. What is sports Bio-mechanics?. Explain the role of equilibrium with its application in sports. 5

25. Simplify laws of learning. With specific reference of laws of learning and transfer of learning. 5 26.Critically analyse healthy environment leads to healthy sports. 5

**TIME MANAGEMENT FOR THE PRACTICE PAPERS**

**NOTE: 15 MINUTES WILL BE ALLOTED TO EACH EXAMINEE FOR READING THE QUESTION PAPER BEFORE COMMENCEMENT OF THE EXAMINATION.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MARKS PER QUESTION** | **EXPECTED TIME PER QUESTION** | **NUMBER OF QUESTIONS** | **TOTAL EXPECTED TIME** | **AVERAGE EXPECTED TIME FOR EACH CATEGORY** |
| 1 | 1-3 min | 11 | 11-33 min | 33 min |
| 3 | 5-7 min | 8 | 40-56 min | 48 min |
| 5 | 10-13min | 7 | 70-91 min | 84 min |
|  |  | Revision time For  | the whole Paper | 15 min |
|  |  |  | **Total** | **180 min** |

**ASSESS YOURSELF ON THE GRADING CHART**

**NOTE: 15 MINUTES WILL BE ALLOTED TO EACH EXAMINEE FOR READING THE QUESTION PAPER BEFORE COMMENCEMENT OF THE EXAMINATION.**

|  |  |  |  |
| --- | --- | --- | --- |
| **TIME LIMIT** | **SUM OF TIME LIMIT** | **GRADE** | **REMARKS** |
| Lower time limit | 121 min | **Brilliant** as he/she has finished the paper before the expected time | Very well-prepared but needs to revise thoroughly so as to score 100% marks |
| Upper time limit | 180 min | **Average** as there is no time left for revision | Needs more practice and increase speed so as to keep time for revision |
| Expected time limit | 165min | **Excellent** as he/she is left with 15 minutes for revision | Well prepared but remove mistakes, if any during revision so as to get 100% marks.  |

**GOOD LUCK FOR THE EXAMINATION-2016**

**-XXXXXXXXXX-**

**Prepared by:-**

**Dept. Of Physical Education, DAV, Cspur**