

SAMPLE QUESTIONS AND SUGGESTED GUIDELINES OF ANSWERS-2015

CLASS-XII

PHYSICAL EDUCATION (THEORY)

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SAMPLE QUESTION NO.1

1. **Give one most important mechanical difference between walking and running ?** (1)
Ans. The body is totally airborne for a period of time during running whereas at least one foot contact the ground for the whole cycle during walking.
2. **What is the role of fat ?** (1)
Ans: Fats are important source of energy for long endurance activities, it is necessary for many body functions. Fats keep us warm and give protection to organs. It also help in production of hormones, maintenance of skin and hair etc.
3. **Define sports environment ?** (1)
Ans: It means availability of proper infrastructure, facilities of equipments. It is the conditions and circumstances in which sports persons perform or indulge in sports activities. In fact sports environment is meant for physical activities like playing games and sports. Practicing fitness work, playing fun and recreational games.
4. **What is acceleration?** (1)
Ans: Acceleration is the capacity to attain maximum speed in minimum time. Here athlete tries to attain top speed as fast as possible
5. **Define Posture ?** (1)
Ans: Posture is a tool of mechanical efficiency of body which causes minimum stress to muscles, More over maximum output of physical efficiency can be attained.
6. **What is isotonic exercise ?** (1)
Ans: The literal meaning of the word isotonic is constant tension i.e., iso means constant and tonic means tension. In this exercise the length of muscles changes (shortens or lengthens) during action along with tension in them. Isotonic exercise is a form of active exercise in which muscles contract and cause movement. There is no significant change in resistance throughout the movement, so the force of contraction remains constant. Such exercise greatly enhances joint mobility and helps improve muscle strength and tone.
7. **Define Balanced Diet ?** (1)
Ans: A diet which contains the proper amount of each nutrients, i.e. like carbohydrate, fat, protein etc is called Balanced Diet. A diet which consists of all the essential food constituents viz. protein, carbohydrates, fats, vitamins, minerals and water in correct proportion is called balanced diet. A balanced diet contains sufficient amounts of fibre and the various nutrients (carbohydrates, fats, proteins, vitamins, and minerals) to ensure good health. Food should also provide the appropriate amount of energy and adequate amounts of water.
8. **Why is friction necessary for movement?** (1)
Ans: Friction is a force which is applied in a opposite direction and helps in maintaining the balance of body .

9. **Define Bulimia Nervosa? (1)**
Ans. Bulimia nervosa is an eating disorder characterized by consuming a large amount of food in a short amount of time.
10. **What are the symptoms of anxiety? (1)**
Ans: Sweating, Stomach upset or dizziness
11. **How does camping create good leaders? (1)**
Ans: Camping is an activity by which an individual can get a chance to lead a group for outdoor activity and become a personality to lead.
12. **List down the fitness index score of Harvard step test? (3)**

Ans.

Rating	Fitness Index	Rating	Fitness Index
Excellent	>96	Below Average	54-67
Good	83-96	Poor	<54
Average	68-82		

13. **How can you measure recovery phase of an individual or measurement of cardiovascular fitness? (3)**
Ans. Recovery phase is measured by Harvard step test
 The formula to measure is :- $100 \times \text{test duration in seconds} \div 2 \times \text{sum of heart beats in recovery periods}$
14. **Explain the role of carbohydrate in diet? (3)**
Ans: Carbohydrate:- 1. Carbohydrate is the main fuel to the body. It supplies energy and heat to the body. 2. It helps in digestion and regulation of fat in protein metabolism.
 (a) It is composed of carbon, hydrogen and oxygen.
 (b) It helps in the metabolism of fat. (c) It is highly valuable when strong muscular work is undertaken.
 (d) Sources :- **Starches** - roots, tubers & plant stem. **Sugar** : It comprises 6 glucose, Maltose, Sucrose **Cellulose** :- Consists fibrous substance like, fruits, vegetable cereals, banana, sugar cane, etc.
15. **Explain the corrective measures of any three postural deformity. (3)**
Ans: Corrective measures of kyphosis 1x3=3
 (i) Perform Dhanurasana regularly (ii) Bend your head backward in standing position.
 (iii) Reverse sit-up (iv) Perform Bhujang Asana (v) Perform ushth Asana
Corrective measures of Lordosis
 (i) Forward bending (ii) Alternate toe touching (iii) Sloop walking
 (iv) Perform paschimotan Asana (v) Perform sit-ups regularly
Corrective measures of scoliosis
 (i) Perform Ardh Chakra Asana (ii) Chin-ups (iii) Swim by using breast stroke technique
 (iv) Perform Trikon Asana (v) Perform Tarra Asana
 (The students can write the corrective measures of any other deformities)

16. **In sports such as Boxing & Wrestling, the players tend to lose weight sharply. Explain pitfall of dieting? (3)**
Ans. Pitfalls of Dieting are as follows:
1. Intake of calories through drinking: when you want to lose weight you try to eat less and drink less too things like sweetened juices, sodas, coffee and ice creams etc. all these contribute to weight gain.
 2. Underestimating the calories: it is a fact that most of the persons who go on dieting usually underestimate the number of calories they consume. So, it is essential to be more aware about the number of calories you take in your diet.
 3. Crash dieting takes the biggest toll on water reserves of our body. Loss of water impairs (check/reduces) circulation and therefore overworks the heart and kidneys.
 4. Intake of labelled foods. 5. Not performing exercises.

17. Define eating disorders and elucidate upon any one ?

(3)

Ans. Anorexia and bulimia nervosa are the two types of eating disorders.

Anorexia nervosa is an eating disorder that cause people to obsess about their weight and the food they eat. People with anorexia nervosa attempt to maintain a weight that is far below normal for their age and height. To prevent weight gain or to continue losing weight, people with anorexia nervosa may starve themselves or exercise excessively.

18. Why have adventure sports become so popular these days ?

(3)

Ans. Adventure and risk-taking sports such as mountaineering, kayaking , rock climbing, downhill mountain biking and base jumping have increased in popularity in recent years. These activities court significant dangers and attract individuals who are prepared to gamble their personal safety and at times their lives in search of a rush of excitement or an unusual accomplishment.

19. Define knock knee and explain its corrective measures ?

(3+2=5)

Ans. If a person stand erect in standing position with his feet close together, then for a normal posture there should be some gap between the knees. If there is no gap and the knees touch or overlap, then it mean there is a deformity called knock knee. The main cause of knock knees is the weakness of muscles and ligaments and also the softness of bones of the knee region. To remove this deformity, extra care should be taken while walking. In this postural deformity the legs are bent inward and knees strike each other while walking or running. In this problem the knees join together while there is wide gap between the ankle varying directly with the degree of deformity. **Genu valgum**, commonly called "**knock-knee**", is a condition in which the knees angle in and touch one another when the legs are straightened. Individuals with severe valgus deformities are typically unable to touch their feet together while simultaneously straightening the legs. The term originates from the Latin genu, "knee", and valgus which actually means bent outwards. The main cause of knck knees is the weakness of muscles and ligaments and also the softness of bones of the knee region. To remove this deformity, extra care should be taken while walking.

Corrective measures-Activating and developing the arches of the feet,

Waking up the inner leg muscles (adductors), and Learn how to move the inner ankle bone inwards towards the outer ankle bone, and upwards towards the knee.

20. What are the types of personality and explain in detail the role of sports in personality development.

(2+3=5)

Ans. Personality is the dynamic organization within the individual of those psycho physical systems which determine his unique adjustment to his environment. Personality is not static but a dynamic concept. It is continuously chaning and growing. Children may have identical environment. They may have similar experiences but they react to the same environment in different way.

Types of Personality

Introverts:- Introverts are shy, self conscious quit retiring interested in the own thoughts and feelings, inclined to worry and easily upset.

Extroverts:- Extroverts are social, open frank, outgoing, eager to do thing adaptable, not easily worried or embarrassed and willing to work with others.

Ambiverts:- In ambiverts both the characteristics of introverts and extroverts are found. In every person mostly both the characteristics are found through one of them may be predominant.

Sports play a very important role in personality development. They improve the following qualities.

- (a) Self concept
- (b) Mental toughness
- (c) Emotional stability
- (d) Quick Decision
- (e) Planning (Points to be explained)

Sports and games play an important role in the development of human personality. They are no less important than food and fresh water. Games and sports help to combat anxiety, depression and stress. Sports train sportsmen to accept defeat gracefully and to move on.

21. Describe the procedure for administering Rikli & Jones fitness test. (5)

Ans. The test used to measure fitness of senior citizen is Rikli and Jones Senior citizen fitness test.

The Senior Fitness Test was developed as part of the Life Span Wellness Program of Fullerton University by Dr. Roberta Rikli and Dr. Jessie Jones. It is a simple easy-to-use battery of test items that assess the functional fitness of older adults. The test describes easy to understand and effective tests to measure aerobic fitness, strength and flexibility using minimal and inexpensive equipment.

The Individual fitness test items involve common activities such as getting from a chair, waling, lifting, bending and stretching. The tests were developed to be safe and enjoyable for older adults while still meeting scientific standards for reliability and validity. Here is a list of the tests, with links to more details for each.

1. Chair Stand Test – testing lower body strength
2. Arm Curl Test – testing upper body strength.
3. Chair sit and Reach Test – lower body flexibility test
4. Back Scratch Test – upper body flexibility test
5. 8-Foot Up and Go Test – agility test
6. Walk Test (6 minutes) or Step in Place Test (2 minutes) - The walk test is used to assess aerobic fitness unless the person uses orthopedic devices when walking or has difficulty balancing in which case they do the step in place test.

22. Define league Tournament ? Draw a Fixture of 9 teams in single league stair case method ? (2+3=5)

Ans. League tournament : In such tournament every team has to play with every other team irrespective to win or defeat or draw. In this tournament every team has good opportunity to comeback, skilled selection can be done, true winners can be found and other teams also get the ranking. This tournament has demerities like more time are required more amount of funds, more organizers are required, large level of arrangement are required, more trying for players etc.

Define : All the teams are treated at par in league tournament, There are two type of league Tournament

- (a) Single league tournament (b) Double league tournament 1

We discuss about single league $\frac{n(n-1)}{2} = \frac{9(9-1)}{2} = \frac{9 \times 8}{2} = \frac{72}{2} = 36 \text{ matches}$ 1

Number of Round = $N - 1 = 9 - 1 = 8 \text{ round}$

Stair case method (Round) 3

1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th
1-2							
1-3	2-3						
1-4	2-4	3-4					
1-5	2-5	3-5	4-5				
1-6	2-6	3-6	4-6	5-6			
1-7	2-7	3-7	4-7	5-7	6-7		
1-8	2-8	3-8	4-8	5-8	6-8	7-8	
1-9	2-9	3-9	4-9	5-9	6-9	7-9	8-9

The winner in the league will be decided on the basis of points.

23. What is the role spectators for positive sports environment ? (5)

Ans. The term “spectator means the person who watches at a show, game, events. The various important games were lots of spectators to see and motivate the players in cricket. In Kolkata Foot ball is very famous game, thousand of spectators see the game and encourage the players.

So, motivational factors play the important role, by giving support to the players and teams excited and try to give their best and also try to win the match. Better sports environment is the conditions and circumstances which are favourable and beneficial for the sports persons who perform or indulge in sports activities. The presence of spectators is essential for creating better sports environment. So spectators play vital role in game and sports.

The role of spectators for better sports environment are as follows.

- (a) Spectators are really motivators to players through slogan & shouting. (b) The confidence of player or team increases through motivation & perform best effort. (c) A sizeable presence of spectators creates healthy environment and generate more revenue to the organizer.
- (i) The spectators behaviour and attitude towards coaches, officials, and players should be appropriate towards any players. (ii) They should not instruct players on the field.
- (iii) They should not pass any comments towards referee, umpire or any other game official.
- (iv) They should not indulge themselves in any type of violence.
- (v) They should appreciate the good act of sports person.
- (vi) They should not throw any waste material towards the player or officials.
- (vii) They should try to motivate the players of that they may put up better performance.

24. Define Stress and elucidate its management techniques. (1+4=5)

Ans. A state of affair involving demand on physical or mental energy. The body's physiological response to demands place on it. In simple words stress is a condition or circumstance which can disturb the normal physical and mental health of a person. **Techniques to manage Stress:-**

- a) Participation in Physical activities, b) Achieve a high level of physical fitness,
c) Building self confidence, d) Relaxation techniques e) Developing Hobbies
f) Staying cool and confident under pressure g) Avoid the company of stressed persons
h) Don't think about stressful thoughts (Explain these points out of own words)

25. What are the factors affecting the motor Development of Children? (5)

Ans. The factors affecting motor development of children are:

1. **Nutrition :-** Nutritious food promotes good motor development. Sensory motor development is dependent upon nutrition that the child gets to a great extent. Children get stronger and development is good if they get nutritious food.
2. **Immunization:-** If mother and child both are immunized at a proper time it leads to good sensory motor development.
3. **Environment:-** Encouragement, love and security help the child to take risk to explore fearlessly and to know more about environment which leads to a better sensory development .
4. **Opportunities:-** Children who get more opportunities to do more activities, motor development is better in them. Opportunities to play to gain knowledge give a better chance of developing sensory motor activities.

26. What is friction? Explain its types, advantageous and disadvantage in the field of sports (5)

Ans. Friction : Friction is a force that resists the movement. Without friction it would be impossible to walk or run or do much of any kind of movement. It plays a very important role in movement of one body over another surface. The force of friction is the force that depends at the surface of contact of two bodies and opposes their relative motion. **Types of Friction:-**

a) Static Friction:- The opposing force that comes into play when one body tends to move over the surface of another, but the actual motion has not yet started is called static friction.

b) Dynamic friction: Dynamic friction is the opposing force that comes into play when one body is actually moving over the surface of another body. Further, dynamic friction can be of two types:-

i) Sliding Friction:- The opposing force that comes into play when one body is actually sliding over the surface of the other body is called sliding friction. For example, ice-skating and in planting the pole on pole vault.

ii) Rolling Friction:- The opposing force that comes into play when one body is actually rolling over the surface of the other body. Ex- When a hockey or cricket ball is hit. **Advantage:-** Friction is usually called a necessary evil. It means that it is essential in games and sports. Without friction, we cannot give a better performance in the field of sports. Ex. Spike (athletes), studs (football Players) **Disadvantage:-** Friction is disadvantageous in some of the sports and games, such as in cycling, there should not be more friction between road and the tyres of cycle. Still it can be said that friction is a advantage for the sports.

SAMPLE QUESTION NO.2

1. **How extrinsic motivation sometime may kill intrinsic motivation ?** (1)
Ans. Extrinsic motivation may kill intrinsic motivation sometime because the physical appearance of the thing have more influence on the mind of an athlete.
2. **What is the meaning of Intra-mural competition ?** (1)
Ans. Competition within the wall of an institution means inter house and competition among students of same institution. The word 'Intra-mural' is combination of two latin words Intra and Mural where Intra means 'Inside' and mural means 'Within the walls'. The intra-mural means competition within the wall of institution.
3. **In which conditions knock out tournaments are better than Round Robin?** (1)
Ans. It is economical and time saving.
4. **What is the Role of media in positive sports environment?** (1)
Ans. Today media is one of the important source of publicity. There are many channels on television they only show coverage of sports. The newspaper also play on impotent role for improving the sports. The media successfully exploits the public need for entertainment. Media makes use of our need to witness the actual thing by serving as a mediator between event and viewers. Television is the right choice to see their favourite one when actual thing happens on ground.
5. **Calculate the physical Fitness Index using short formula for a 12 year old boy having completed Harvard Step Test for a duration of 3 minute and pulse rate of 54 beats for 1 to 1.5 minute.** (1)
Ans.
$$\frac{100x(3x60)}{2x54} = \frac{100x180}{2x54} = \frac{18000}{1080} = 166.86$$
6. **Which are the Fat Soluble Vitamin ?** (1)
Ans. The Foot saluble vitamins and A, D, E and U
7. **What is Interval method ?** (1)
Ans. This method is very useful for the athletes of the track event. It is based on the principle of "Effort and recovery".
8. **Reward and punishment should be on the sport. Comment** (1)
Ans. Reward and punishment is a technique of motivation which is most effective when is given on the spot. Delay in reward or punishment decreases its relevance.
9. **Regular Physical activities cannot stop the clock of ageing; but definitely it can slow the process. Justify ?** (1)
Ans. Regular exercise can delay the ageing process, as by regular exercise all the body function are working properly and blood supply to all the organs improve the efficiency of an individual. Regular exercise also makes muscle strong.
Following are the points which delay ageing process by regular exercise
1. Increase in hear rate and stroke volume 2. Increase in cardio output 3. Increase in size of lungs and chart.
10. **What is carbohydrate ? What are the sources of carbohydrate ?** (1)
Ans. Carbohydrates are composed on carbon, hydrogen and oxygen. Carbohydrate are the main source of energy. Carbohydrate help in the metabolism of fat etc. There are three main sources of carbohydrates, a) Starches- rice, potatoes, wheat and other cereals, b) Sugars-refined sugars, c) Sucrose and fruit sugar-fructose d) Cellulose (Explain points if any)
11. **How do climatic conditions affect the performance ?** (1)
Ans. Environmental conditions, such as excessively high or low temperatures, have the potential to have a negative impact on an athlete's well-being. An athletes' ability to use a numberof thermoregulation techniques helps in regulating body temperature.

12. **What are common postural deformities ?** (3)
Ans. The common postural deformities are :- Knock knee, Bow legs, Spinal curvature (Kyphosis, Lordosis, Scoliosis). Flat foot, round shoulders. (Any three to be explained.)
13. **Explain any three Macro Nutrients of diet ?** (3)
Ans. The three Macro Nutrients of diet are, (a) Proteins explore (b) Fat explore (c) Water explore
Three elements of diet are 1x3=3
Carbohydrate : It oxidize to release energy. An average adult requires 12000 calories of energy per day. This is the main source of energy. They contain the elements of carbon, Hydrogen and Oxygen with chemical formula CHO₂. On an average 1 gram of carbohydrates give 4 calories of energy or burning. There are two types of carbohydrates i.e. simple carbohydrate and complex carbohydrates. We obtained the carbohydrates in the form of starch. It is found in rice, potato, yams, bread, cereals etc. It is also found from milk, sugar, sugarcane in the form of glucose fructose and sucrose.
Proteins : There are necessary for growth & repair of body tissues. It contains the elements carbon, Hydrogen, Oxygen, Nitrogen and sometimes sulphur. They are turned into amino-acids by our digestive system. There are 23 amino-acids out of these, 9 amino-acids must be available in the diet. These are used by the body to create blood, muscles, nails, skin, hair and internal organs. We can get proteins from milk, pulses, cereals, egg, cheese, meat and fish.
Fats : Fats contain carbon, oxygen and Hydrogen in the percentage of 76, 12 and 12 respectively. It keep us warm and given protection to organs. It also help in production of hormones one gram of fat on burning gives 9 calories of energy. Extra amount of fats are stored under the skin. In the form of fatty acids. Two types of fatty acids i.e. saturated Fatty acid contain chain of carbon atom and unsaturated fatty acids. **Water** : Water is a compound which is made up hydrogen and oxygen elements in 2:1. It helps in transportation of nutrients to the cells of the body.
14. **Explain any three points on advantage/importance of correct posture ?** (3)
Ans: Importance :- (a) One's personality can be judged, (b) Better balance, agility and overall physical performance. (c) helps in maintaining proper manner of standing, sitting walking of one's body. (d) it is a measure of one's alertness. (e) has better alignment, which translates into less injury. (f) recovers quicker from exercise or physical exertion, and feels more energetic (Other points if any)
15. **Find out the need for better sports environment ?** (3)
Ans: Any three points to be explained 1x3=3
 (a) Provision for proper sports facility :- It is the basic requirement of the athletes to carry out sports and games facilities.
 (b) Encourage by parents :- Proper and timely encourage and guidance by the parents help in creating interest & attitudes in child.
 (c) Influence of community :- Popularity of sports in communities is bound to promote programmes particular community. Sporting tradition of a community must be maintained.
 (d) Influence of Tournaments :- Organising various tournaments of different level create more interest & promote better attitude towards the game & sports. (Other points if any by the students)
16. **Why is Women participation in sports much less?** (3)
Ans: The participation of women in sports is much less due to the following reasons:
 (a) Lack of female sports persons as role model.
 (b) Lack of media coverage and poor interest of spectators
 (c) Fewer number of women coaches
 (d) Poor education among women.
 (e) Attitude of society towards women's sports participation
 (f)

17. Explain food myths.?

(3)

Ans: There are various food myths specially prevailing in Indian, when to eat what how much and where to eat etc, things like that often confuse individuals, they are believed by people and now have scientific knowledge which says not to believe them.

1. Potatoes make you fat
2. Fat free products will help you in losing weight
3. Eggs increases cholesterol levels so avoid them
4. Drinking while eating makes you fat
5. Don't take milk immediately after eating fish
6. Starve yourself if you want to loose weight

18. Briefly explain any three objectives of adventure sports?

(3)

Ans:

- i) **To encourage creativity:-** To encourage creativity in participants is the sports. These sports allow new manoeuvres and stylish execution of existing techniques.
- ii) **To develop mental and physical fitness:-** To develop mental and physical fitness is also and important objective of adventure sports. These sports are helpful in developing mental and physical fitness.
- iii) **To improve social relations:** To improve social relations among the participants is another objective of adventure sports. Most of the sports such as trekking, river rafting, provide ample opportunities to improve social relations.

19. Discuss the factors influencing body image and self-esteem?

(3)

Ans:

- i) **Media Images:-** During teenage, the teenagers become more aware of celebrities and media images. They usually start to compare themselves with media images and celebrities.
- ii) **Family and school:-** We do not develop our body image all on our own. The family, school and other members of society can influence our self-esteem and body image.
- iii) **Life experience and natural ageing process:** Body image and self-esteem are also significant factors which influence the body image influence our body image and self-esteem.

20. Describe the causes and preventive measures of Scoliosis?

(2+3=5)

Ans: Causes of scoliosis-

- a. **Congenital scoliosis.-** Caused by a bone abnormality present at birth.
- b. **Neuromuscular scoliosis.** A result of abnormal muscles or nerves. Frequently seen in people with cerebral palsy or in those with various conditions that are accompanied by, or result in, paralysis.
- c) **Degenerative scoliosis.** This may result from traumatic (from an injury or illness) bone collapse, previous major back surgery, or osteoporosis (thinning of the bones).
- d) **Idiopathic scoliosis.** The most common type of scoliosis, idiopathic scoliosis, has no specific identifiable cause. There are many theories, but none have been found to be conclusive. There is, however, strong evidence that idiopathic scoliosis is inherited.

Preventive measures-

- a. **Avoid activities that require overexertion on only one side of the body.** One common type of scoliosis, called idiopathic scoliosis, is largely caused by muscle imbalances. Prevent scoliosis of this type by being conscientious of certain activities:
- b. **Exercise the back muscles.** Having strong and stable back muscles is tantamount to scoliosis prevention, as it is the back muscles that support the spinal column and hold it in its proper shape. Some recommended strength training exercises for the back.
- c. **Improve your posture.** Focus on sitting up straight and walking with your head up and your shoulders back.
- d. **Aquire proper vitamins and minerals.** Calcium contributes to keeping bones healthy, so eating foods like oatmeal, soybeans (preferred boiled without salt), almonds, and even sardines will keep your bones strong and stable.

21. What do you mean by sports training ? Highlight main features of Interval and Fartlek Training. (1+4=5)

Ans: Sports Training :- It is a process of sports perfection directed by scientific and pedagogic principles and aims at leading a sports person to high and top level sports performance in a game or a sport or an event by means of planned and systematic improvement of performance capacity and readiness of performance. "Sports training" is a planned and controlled process in which, for achieving a goal, changes in complex sports motor performance, ability to act and behavior are made through measures of content, methods and organization.

INTERVAL TRAINING : This training method is considered as best method for development of endurance. The method is based upon "effort and recovery" principle. During interval training recovery period is given to the athlete after each speedy workout. Recovery period can be adjusted according to the efficiency of athlete. The load can be increased by reducing the recovery period or by increasing the workout. It is of two types (a) slow or extensive interval training method (b) fast or intensive interval training method.

FARTLEK :- It is a Swedish term that means "speed play," is a form of interval or speed training that can be effective in improving your speed and endurance. Fartlek running involves varying your pace throughout your run, alternating between fast segments and slow jogs. Unlike traditional interval training that involves specific timed or measured segments, fartleks are more unstructured. Work-rest intervals can be based on how the body feels. With fartlek training, you can experiment with pace and endurance, and to experience changes of pace. This method was developed in Scandinavia. It is used to describe cross country runs where the steady speed of ordinary cross country running is changed into a mixture of faster and slower phases, each covering a different distance over natural terrain according to the individual approach of the sports person. The change of intensity is done depending upon the surface of running, surrounding condition of the sports person, climate and the like. This method is effective for development of both aerobic and anaerobic capacities of sports persons.

Example :

- (i) Jugging for 5 to 10 minutes (ii) Brisk walk for 5 min. (iii) End with stretching exercise.
- (iv) Run at fast steady pace over a distance of 800 m to 1200 m. (v) Run up the hill
- (vi) Easy running 40 to 50 m (vii) Run down the hill (viii) Walk of 5 min.
- (ix) Run at fast pace for one minute (x) Jog about 1 to 1.5 km.

1+2+2=5

22. Discuss the effect of food supplements on children in positive and negative manner (5)

Ans. Now a days Parents should be aware that many complementary health products, including dietary supplements and herbal medicines are available in market as dietary supplement but they have not been tested for safety or effectiveness in children. Because children's metabolism and their immune, digestive and central nervous systems are still maturing, side effects can differ from those seen in adults. This is especially true for infants and young children.

Advantages of Food Supplements

- (a) Supplements can contribute to improve muscular strength, endurance and overall physical performance.
- (b) Some supplements are used in combination with drugs as a method of complimentary or alternative treatment of health conditions.
- © Food supplements gives vitamin and minerals which protect the body from disease.

Disadvantages of Food supplements

- (a) Food supplements can cause adverse side effects also, if they are not consumed in the right quantity. They can damage liver and reduce bone strength.
- (b) Weight-loss supplements may contain numerous untested ingredients that have not been examined for safety or effectiveness in children. The possibility of product contamination is the main safety concern about dietary supplements for both children and adults, but the danger may be grater for children.

23. Suggest various methods for flexibility training to improve the optimum flexibility.

(5)

Ans. Following are the stretching ways for flexibility development:

Active stretching is where you are taking the muscle beyond its normal range of motion with assistance (PNF or with the help of a partner)

Passive stretching allows the muscles and tendons to stretch naturally without the use of additional forces acting on the muscle/tendon. The flexibility gains are not as great with passive stretching as it is with active stretching.

1. **Static stretching** is a technique where the muscle is slowly stretched and then held in the stretched position for several seconds. This type of stretching allows the muscle to be relaxed so that a greater length can be achieved. It is the most frequently.

2. Used and most recommended type of stretching. There is a low risk of injury with this technique.

3. **PNF stretching** is much longer stretching session when compared to the other types. It requires a partner's help to utilize this technique. The use of a partner is so that there can be a contraction and relaxation phase. This type of stretching is actually the most effective form of stretching, but it is also considered the most painful type of stretching,

4. **Dynamic stretching** is a technique that many athletes should be accustomed to. This type of stretching can be in the form of leg swing walks or carioca just to name a few. This is a great way for teens to work on their flexibility in a fun way. It allows them to be active and it can be done with groups and teas. This type of stretching goes for more than two seconds and is done without stopping the movement.

5. **Ballistic stretching** is a type of stretching, but it is not recommended for improving flexibility. This type of stretching could lead to muscle soreness and injury because it is possible that this technique could cause small tears in soft tissue due to the bouncing movements that force the muscle to lengthen. Ballistic stretching due to the bouncing, could stretch ligaments too far if the movement is not controlled.

24. Define Round Robin tournament and draw a fixture of 8 teams by any method.

(5)

Ans: A round-robin tournament (all-play-all tournament) is a competition "in which each contestant meets all other contestants in turn" irrespective of any kind of result.

Fixture- No of matches- $\frac{n(n-1)}{2} = \frac{8(8-1)}{2} = 28$

No of rounds- $N-1 = 8-1 = 7$

Fixture- Cyclic method

Fixture

1 st round	2 nd round	3 rd round	4 th round	5 th round	6 th round	7 th round
A-B	A-H	A-G	A-F	A-E	A-D	A-C
H-C	G-B	F-H	E-G	D-F	C-E	B-D
G-D	F-C	E-B	D-H	C-G	B-F	H-E
F-E	E-D	D-C	C-B	B-H	H-G	G-F

25. What do you mean by anxiety ? How can it be managed.

(2+3=5)

Ans: Anxiety :- Anxiety is a psychological and physiological state of an individual. It is characterized by cognitive, emotional and behavioral components. These components combine to create an unpleasant feeling, which is associated with uneasiness, fear of worry.

According to Levitt, "Anxiety is a personal feeling of apprehension accompanied by an increased level of physiological arousals". "Anxiety is a chronic fear that limits our ability to carry out normal functions". **Anxiety** (also called **angst** or **worry**) is a psychological and physiological state characterized by somatic, emotional, cognitive, and behavioral components. It is the displeasing feeling of fear and concern. The root meaning of the word anxiety is 'to vex or

trouble'; in either presence or absence of psychological stress, anxiety can create feelings of fear, worry, uneasiness, and dread. **Anxiety in sports** is a natural reaction to threat in environment & part preparation of fight response. It is a psychological phenomenon.

Management of Anxiety :- Anxiety can be managed through various techniques such as

- (i) Deep breathing (ii) Drink water (iii) Follow advice (iv) Psychological balance
- (v) Warming-up (vi) No criticism (vii) Focus your target (viii) Sufficient practice
- (ix) Self confidence (x) Encouragement, (The students can write any other points)

3

26. Explain in detail the AAHPER Test.

Ans. AAPER PHYSICAL FITNESS TEST : This test consists of the following six items :

- (a) **Pull ups :** In case of girls, the pull-ups are to be started from a flexed arm hang. This test item judges the arm and shoulder girdle strength. (b) **Flexed Leg situps :** This test is meant to judge the efficiency of abdominal and hip flexor muscles. (c) **Shuttle Run :** This test item is meant for judging the speed and change of direction. (d) **Standing Long Jump :** For judging the explosive power of leg muscles.
- (e) **50 yard Dash or Sprint :** For judging speed. (f) **600 yard Run :** For judging endurance.

Administration of Tests : these tests can be conducted in a gymnasium or out-doors. The only apparatus required in these tests is a horizontal bar having a diameter of approximately 1½ inches for pull-ups and flexed arm hang for girls. However, arrangement has to be made for the timing and recording of all scores with the help of timers and recorders. **Item No.1—Pull ups :** This item has to be done from a hanging position on the bar by using the overhead grasp (with palms facing outwards). The arms and legs of a subject should be fully extended. From hanging position, the subject should raise his body with his arms until his chin is placed over the bar. Then, he should lower his body to a full hanging position. In doing so, the knees should not be bent and the pull should not be jerky or snap pull. (The number of completed pull-ups is the score of the subject.) **Item No. 1 (Girls)—Flexed-arms hung :** In this test item for girls, the subject is required to hang from the bar with flexed arms and overhead grasp. She should raise her body to a position where the chin is above the bar, the elbows are flexed and the chest is close to the bar. The stopwatch is started as soon as a subject assumes such a hanging position and is stopped when the subject's chin falls below the level of the bar. (The time recorded in seconds for which a subject holds the hang position is her score). **Item No. 2—Sit-ups :** For this test meant for boys and girls, the subject should lie on his or her back with knees flexed and kept not more than 12 inches from the buttocks. The hands of the subject should be placed at the back of the neck, fingers clasped and elbows touching the mat. From this position, the subject should raise his or her head and elbows forward upwards till the elbows touch the knees. This constitutes one sit-up. (The number of correctly performed sit ups in 60 seconds from the start of the first sit-up is the score of a subject). **Item No. 3—Shuttle Run :** For this test item, two parallel lines are drawn at a distance of 30 feet from each other and two blocks of wood are placed behind one of the lines. The subject has to stand behind the other line and on the signal "Ready", "Go" should run to pick up one block, run back to the starting line and place the block behind the line. He should again turn back to pick up the second block and bring it also behind the starting line. Two such trials are given. (The better time of the two trials to the nearest 10th of a second is the score of the subject). **Item No. 4—Standing Long Jump :** In this test, a subject is required to stand behind a take-off line, with feet apart. He takes a jump forward by extending his bent knees and swinging the arms forward. The best jump recorded, out of the three trials given, is the score of the subject. (The jump should be recorded in feet and inches). **Item No. 5—50 Yard Dash :** Two lines are drawn at a distance of 50 yards from each other. The subject is made to run from the start line to the finish line and his time taken is recorded in seconds (nearest to the tenth of a second.) This indicates his score. **Item No. 6—600 Yard Run :** This run can be organized on a track, on a football field or an open area marked for this purpose. In this test item, a subject runs a distance of 600 yards. The subject takes a standing start from the start line. The subject may walk in between. However, the objective is to cover the distance in the shortest time. When he crosses the finish line, he is informed of his time. (The time taken to run the distance is recorded in minutes and seconds).

5

-XX-

SAMPLE QUESTION NO.3

1. **What is Seeding?** (1)
Ans:- SEEDING:- It is a way of spotting the teams and fitting them into the fixtures that strong teams don't meet in the earlier round. The no. of seeding team should be always power of two. A **seed** is a preliminary ranking that can be used in arranging a sports tournament. It is called a seed because of the analogy with plants where the seed might grow into a top rank at the end of that tournament, or might instead wither away. Players/teams are 'planted' into the bracket in a manner that is typically intended so that the best do not meet until later in the competition.
2. **Explain Inter-House competition?** (1)
Ans: It means competition among the students of same institution on various fields. It enhance and explore the talents of the students and give them better exposure.
3. **Define Extramural competition ?** (1)
Ans:- Extramural competitions are conducted between the players of two or more institutions. In this case the best players represent their institutions. Ex.-Inter DAV School, CBSE cluster Tournament
4. **What is strength endurance ?** (1)
Ans:- Strength endurance is the ability to overcome resistance under conditions of fatigue.
5. **Define cardiovascular fitness ?** (1)
Ans: It is the ability of an individual to strengthen the heart muscles during continuous muscular activities in which number of muscles groups are used.
6. **What is standing posture ?** (1)
Ans: Standing posture of an individual is considered as the basic posture from which all his other postures stem. It in reality is movement upon a stationary base. a) The feet should be parallel and wide apart, the weight is evenly balance over both legs. b) Shoulder should be back and relaxed with relaxed body position.
7. **What is Isometric Exercises?** (1)
Ans: Isometric exercise is a type of muscle workout in which you perform isometric muscle contraction. An isometric muscle contraction occurs when your muscle exerts force without changing its length. In other words, when you do an isometric muscle contraction, your joint doesn't move. Unlike concentric (when muscle shortens as it works) and eccentric (when muscle lengthens when it works) types of contractions, isometric muscle contraction neither lengthens nor shortens the muscle fibers.
8. **What is Pace race ?** (1)
Ans: Pace race : The speed of Athlete requires a high degree of concentration and complete attention towards the race. It means the pace has to be set with other athlete.
9. **Find the functions of protein.** (1)
Ans:- Protein should account for 10% to 20% of the calories consumed each day. Protein is essential to the structure of red blood cells, for the proper functioning of antibodies resisting infection, for the regulation of enzymes and hormones, for growth, and for the repair of body tissue.
10. **What is Training?** (1)
Ans: **Training** is about knowing where you stand (no matter how good or bad the current situation looks) at present, and where you will be after some point of time. Training is about the acquisition of knowledge, skills, and abilities through professional development.
11. **Mention four committees for organizing sports events.** (1)
Ans: various committees- a) Organizing secretary, b) Accommodation, c) Refreshment, d) Technical, e) Official, f) Press & publicity committees etc. (Mention any four)

12. **Define fat and mention its function** (3)
Ans: FAT:- Fats are important source of energy for long endurance activities. It keeps us warm and gives protection to organs. It also help in production of hormones, maintenance of skin and hair. The main function of fat is to supply energy to the body. By offering energy, fats save proteins from being used for energy and they allow proteins to perform their function. Fats also help in building up structural material of cells and tissues.
13. **Mention the positive contribution of Pranayama & Yoga to sports** (3)
Ans: PRANAYAMA → It 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. proraka (inhalation), kumbhakal (retaining the breath) and rechak (exhalation)
YOGA HELPS A SPORTS PERSON → a – improves various system, b – weight control, c – regulates diet, d – increases immunity, e – glandular functioning improves, f – controls anxiety, g – relaxes body, h – develops fitness etc.
14. **What are the methods of endurance development?** (3)
Ans: ENDURANCE DEVELOPMENT:-
 a) Continuous method:- i) Slow continuous method ii) Fast continuous method.
 b) Interval training method:- i) Speed of work ii) Duration of work
 c) Fartlek training method:- i) it is flexible in nature ii) no equipment
15. **Define Yoga and find out its importance ?** (3)
Ans: Yoga :- It is union of Atma and Paramatma. It derives from sanskrit word “Yuj” which means union of soul with God. It consists of both mental & physical exercises.
Importance:- a) Yogic exercise enables the body to be physically fit. B) It give relief from any kind of tension. (c) It controls & regulate sense organs. D) It improve reflex action & neuro-muscular co-ordination. E) It increases the body flexibility. (Other points if any may be explained)
16. **Differentiate between Isometric and Isotonic exercises** (2)
Ans:- ISOMETRIC EXERCISE → Isometric exercises are those exercises, which are not visible. In fact there are no direct movements, hence they can't be observed. In these exercises, work is performed but is not seen directly. In these exercises, a group of muscles carry out tension against the other group of muscles. For example, pushing against a sturdy wall.
ISOTONIC EXERCISE → Isotonic exercises are those exercises in which movements can be seen directly. There are various examples of Isotonic exercises such as calisthenics exercises, running and jumping or the spot, lifting of weights or weight training exercises and exercises with medicine ball.
17. **How Lordosis can be cured?** (3)
Ans: LORDOSIS CAN BE CURED → In this deformity of tumber spine the body weight is shifted backward. Thus all forward bending asanas or exercise are helpful for correcting lordosis :
 a – Paschimota asana, b – Halasana, c – Forward bendry exercises,
 d – alternative toe touching, e – long stride walking, f – protein lying
18. **What are Fats. What are its types and sources?** (1)
Ans: Dietary fat is one of the nutrients that fuels the body. It give the body 4 calories per gram, fat is more than twice as energy dense, providing the body with 9 calories per gram. Though fat is associated with greasy foods such as hamburgers and pizzas, it is a necessary nutrient that has important functions within the body. There are two main types of fat, saturated and unsaturated fats. Saturated fats are usually referred to as the bad or unhealthy fats while unsaturated fats are referred to as the good or healthy ones **Saturated fats** are found in animal products and are unhealthy because they generally raise the level of bad cholesterol (LDL) in the body. Sources include dairy products (milk, cheese, butter, ice cream), meats and eggs. **Unsaturated fats** are found mostly in vegetable products and are healthy because they tend to lower the bad cholesterol (LDL) while raising levels of good cholesterol (HDL). Sources include vegetable oils (olive & canola oil), nuts, seeds and seafood (salmon, tuna, shrimp).

19. **Elaborate the various leadership qualities one inculcates by participation in adventure sports?(3)**

Ans: Following are the qualities developed by participating in adventure sports:-

- a) **Creative**:- Through participation in adventure sports a students can learn and produce new technique or ideas which are needed during the camping, rock climbing or any other adventure sports .
- b) **Good Communicator** :- By participating in adventure sports a student can learn to express his view in a better way. It plays a very effective role in teaching and coaching process.
- c) **Decision Maker** :- A student can able to take good and wise decision during participation in games and sports.

20. **What is sports training ? Explain two types of strength training method ? (1+4=5)**

Ans: Sports Training : Training in sports is a continuous process based on scientific principles and aiming for higher performance. Sports training is the basic form of preparation of a sportsman. In fact it is a planned and controlled process of achieving goals in which the changes of motor performance and behaviour are made through measures of content, methods and organization.

Types of strength training a) **Isometric** :- Iso-constant, Metric – length, b) The direct movements of the muscles does not takes place or not visible. C) The length of the muscles remain unchanged.

Formula – work done = force x distance, **Isometric** – work done = force x 0 = 0

Advantages :- (a) Useful for weight lifters gymnastic. (b) can be performed for warm-up.

(c) can be done at any place. (d) Require less time.

Disadvantages : It raises the B.P. . It does not create any interest. It develops only static strength.

(b) **Iso-tonic Exercise** : In this exercise, the movements of the muscles can be seen directly. Work is done in these exercises. It tone up the muscles. The movement of the muscles takes place.

Advantage: It generate strength due to full range of movements.

(a) It develops variety of skill.

(b) (b) It can be evaluated easily.

Dis-advantage: It requires costly equipment. (b)Strength gain are not uniform. © Chances of injury is more.

Concentric -Concentric contractions are those which cause the muscle to shorten as it contracts. An example is bending the elbow from straight to fully flexed, causing a concentric contraction of the Biceps Brachii muscle. Concentric contractions are the most common type of muscle contraction and occur frequently in daily and sporting activities.

Eccentric -Eccentric contractions are the opposite of concentric and occur when the muscle lengthens as it contracts. This is less common and usually involves the control or deceleration of a movement being initiated by the eccentric muscles agonist.

21. **What do you mean by coordinative abilities and elaborate on the types of coordinative abilities?(3)**

Ans: Coordination is the ability to repeatedly execute a sequence of movements smoothly and accurately. This may involve the senses, muscular contractions and joint movements. Everything that we participate in requires the ability to coordinate our limbs to achieve a successful outcome – from walking to the more complex movements of athletic events like the pole vault.

Basic coordination abilities:

Adaptive ability enables modifications of motor activity on the basis of comparison or anticipation of new or changing conditions during performing motor activity.

Balance ability is understood as an ability to keep body or its parts in a relatively stable position.

Combinatory ability is understood as an ability to simultaneously put partial movements together into more complex movement structures.

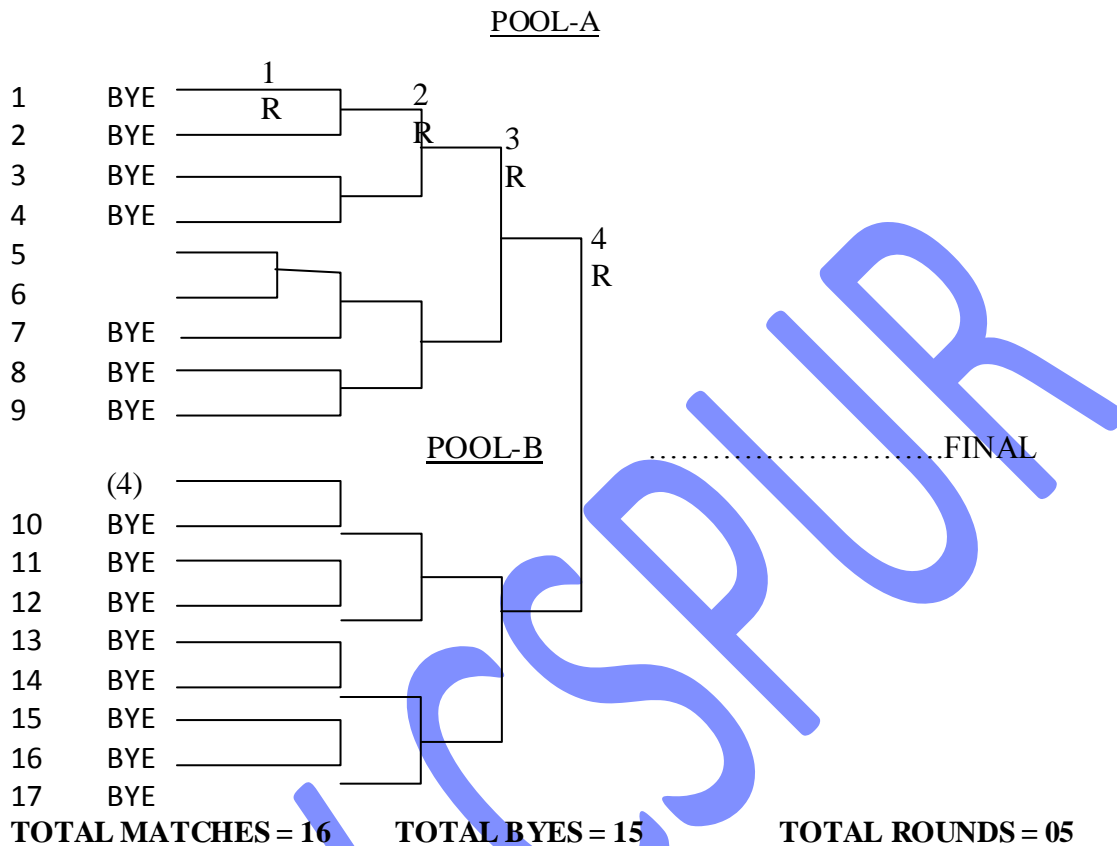
Orientation ability is an ability to realize position of the body or its parts in space and time.

Rhythm ability enables to grasp and meteorically express rhythm which is externally determined or contained in the motor activity it self.

22) **What is Knock out Tournament? Draw a single knock-out fixture of 17 teams** 1+4 (5)

Ans: In this a team is once defeated automatically gets eliminated from the tournament. Only the coining team continue in the tournament. (single & double)

KNOCK-OUT FIXTURE FOR 17 TEAMS (1)



23. **What do you mean by micro nutrients? Explain in brief about mineral as micro nutrients in detail.** (5)

Ans: Minerals and vitamins are included in micro nutrients. Micro nutrients are required in very small amounts. The main function of these nutrients is to enable various chemical reactions to occur in the body,

Minerals:- Mineral are very essential in our diet. Four percent of our body weight is made up minerals. These are required for healthy teeth, bones and muscles. It is also used by body for various activities such as transmission of nerve, impulses formation of hormones and maintenance of heart beat etc.

Macro Minerals:- a) Calcium: Calcium is among the top macro-minerals in terms of growth and development of our bones and teeth. It helps in blood clotting. Its deficiency may cause rickets. The sources are cheese, milk, orange, juice, eggs, green leafy vegetables and cereals.

b) Potassium: Potassium is one of the most required minerals in diet. It is helpful in keeping the nervous system and muscular system fir and active all the time. it helps in maintaining the amount of water in blood and tissues. Its main sources are banana, tomatoes, green leafy vegetables, beans etc.

c) Sodium: It helps in muscular activities. It also helps in transmission of nerve impulses. The sources are table salts, pickles and butter etc.

d) Magnesium: It repairs and maintains body cells. It is found in meat, brown rice, beans and whole grains etc.

Phosphorus: Phosphorus helps in the formation of bone and teeth. It keeps the muscles and nerve activities normal. The sources are egg, fish, liver, milk, and unpolished rice etc.

Micro Minerals: a) Iodine: It produces the hormones for the thyroid gland. It is also significant for proper growth and development. Lack of iodine can cause goiter (swollen thyroid gland) and mental retardation. The sources are iodized salt, fish and sea food.

b) Iron: it is essential in the production of hemoglobin. Its deficiency causes anemia. The sources are meat, egg, dry fruits, spinach banana and green leaf vegetables.

c) Chromium: it is essential in the production of hemoglobin. Its deficiency may cause diabetes. The sources are soybeans, blackgram, carrot, tomato, groundnuts, bajra and barley.

24. **What is role of diet in sports performance?** (5)

Ans: At its most basic level, food is simply your body's source of energy and is what enables you to move. But different kinds of foods play different roles and can help give you quick bursts or sustained periods of energy, assist your muscles in post-training recovery and spur muscular growth and strength.

a. Increased Energy-Digestion is the process by which your body converts food into energy. Foods have different ratings, which indicate how quickly your body uses the energy from those foods. High-GI foods are digested quickly and provide instant energy, while low-GI foods give you a steady supply of energy and keep your blood glucose levels even.

b. Muscle Recovery- Food provides energy but can also help your body recover afterward. As personal trainer and exercise expert Chris Zaino explains, high carbohydrates help your body recover. As he explains, high carbohydrates may quickly replenish muscle glycogen levels that have been depleted during training. Zaino suggests that eating within 15 minutes after an exercise session may aid in recovery. Effective recovery can lead to improved performance in the future.

c. Increased Strength-Upper- and lower-body muscle strength can dramatically improve your sports performance. And while carbohydrates give you energy, protein may increase strength. This is because protein contains amino acids, which your body uses to build muscle. In one study, increasing protein intake by 40 grams daily during an exercise program resulted in significant increases in strength compared to the exercise program combined with increased carbohydrate consumption.

d. Protein intake - must be met in order to maintain body weight, replenish glycogen stores, and provide adequate protein for building and repairing tissue.

e. Fat intake should be adequate to provide essential fatty acids and fat-soluble vitamins, as well as to help provide adequate energy for weight maintenance. Overall, diets should provide moderate amounts of energy from fat (20-25% of energy)

f. Body weight and composition can affect exercise performance, but should not be used as the sole criterion for sports performance. Consuming adequate food and fluid before, during, and after exercise can help maintain blood glucose levels during exercise, maximize exercise performance, and improve recovery time.

g. Athletes should be **well hydrated** before beginning exercise; they should also drink enough fluid during and after exercise to balance fluid losses.

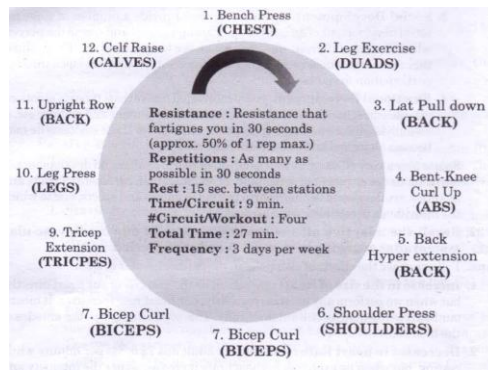
h. Athletes will not need **vitamin-and-mineral supplements** if adequate energy to maintain body weight is consumed from a variety of foods.

25. **What is circuit training? Draw a circuit of different stations and find out its benefits importance.**

1+2+2 (5)

Ans:- In this training method in which certain exercises of various kinds are performed with or without apparatus with given dosage. It was developed by "Adams and Morgan" in 1957. This is considered for the development of "strength & Endurance. Circuit training method is a scientific method which is based on overcoming various exercises at once. It is meant for to develop strength & endurance. It is an off-season training method. It is a form of body conditioning or resistance training using high-intensity aerobics. It targets strength building and muscular endurance. An exercise "circuit" is one completion of all prescribed exercises in the program. When one circuit is complete, one begins the first exercise again for the next circuit.

DIAGRAM OF STATIONS



Benefits of circuit training.

- 1) It is easy and interesting method.
- 2) It requires short duration
- 3) It can be performed indoor and as well as outdoor
- 4) It involves the all organs of body
- 5) It can be easily supervised by the coach.
- 6) It provides an interesting atmosphere.

Importance:

1. It is the best method for beginners as it develops strength and endurance. Maximum functioning of muscles can be gained in a single circuit.
2. It gives relief from any kind of tension. The trainee gains good result in a short period. It doesn't create boredom as lot variety of exercise can be included etc.
3. It is a workout routine that combines cardiovascular fitness and resistance training.
4. The initial routines were arranged in a circle, alternating between different muscle groups.
5. Circuit training plays an integral role in the offseason workouts of many professional athletes.

26. Define speed and describe the types and various methods of Improving Speed. (5)

Ans: Speed is the rate of motion, or the rate of change of position. It is expressed as distance moved per unit of time. Speed is measured in the same physical units of measurement as velocity. Speed is defined as the ability of an individual to perform similar movements consecutively at Fastest rate, e.g., short distance races like 100 metres and 200 metres. Speed as the capacity of an individual to perform successive movement of the same pattern at a fast rate.

Types of Speed: 1) **Movement speed:** It is the ability to do a movement in minimum time. It depends upon technique, explosive strength, flexibility and coordinative abilities.

2) **Locomotor ability:** It is the ability to maintain maximum speed for a maximum time or distance. Events like 100mt, 200 mt, 400mt requires this ability.

3) **Speed Endurance:** Speed endurance is the ability to perform movements with high speed under conditions of fatigue. This depends upon technique, local muscular endurance and lactic acid tolerance ability.

Methods for improving speed.

- 1) **Acceleration runs-** It is the ability to increase speed from jogging to running and finally sprinting. It depends on explosive strength, frequency of movement & technique. To attain maximum speed from a stationary position this is practised after learning proper technique.
- 2) **pace run or races-** A competitive **pace race** is a timed race in which the objective is not to finish in the least time, but to finish within the prescribed time and in the best physical condition. In some races, the prescribed time is very narrowly defined and the winner is the competitor who finishes closest to the prescribed time. Complete recovery is ensured between two repetition. This means to running the whole distance of a race at a constant speed. In this the athlete runs the race with uniform speed.

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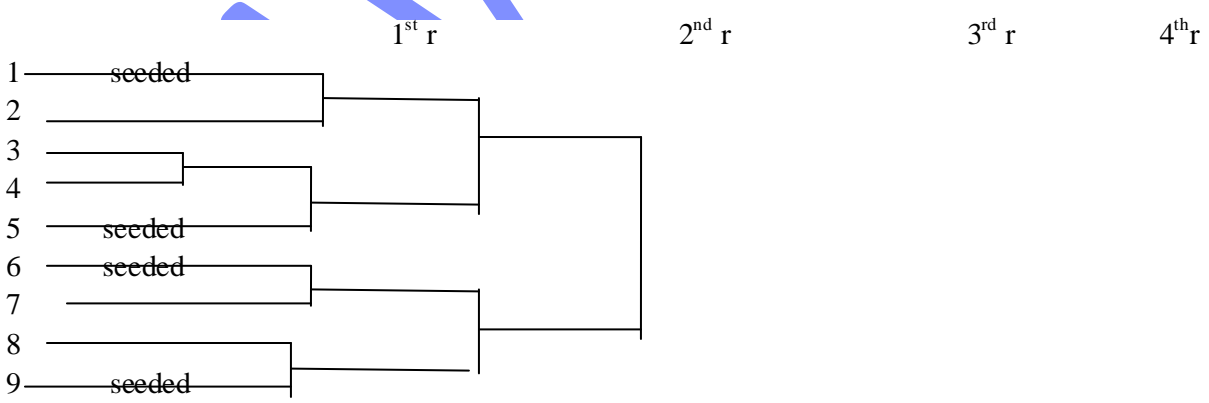
SAMPLE QUESTION NO.4

1. **What is Anulom-Velom Pranayam?** (1)
Ans: Anulom Vilom (Alternate Nostril Breathing) is one of the most effective pranayama (breathing exercises) to purify the mind and body. Anulom Vilom offers benefits in curing most of the internal body conditions and is very useful in releasing stress and anxiety. Anulom Vilom pranayama can be performed by people of all ages. It will help to practice this breathing exercise in a peaceful place like near a river or in a garden with plenty of greenery.
2. **What is Motivation?** (2)
Ans: Motivation in sports can be said to make a difference between a mediocre career and one which is destined for greatest. If you reach the highest level of motivation in sports, you always considered to be in the zone. In order for an athlete to reach this point he/she has to work extra hard. Motivation is thought to be a combination of the drive within us to achieve our aims and the outside factors which affect it. With this in Factors associated with motivation-
Smart Measurable Agreed Realistic Time related Exciting Recorded
3. **What is the meaning of Yoga?** (1)
Ans: Yoga is the union of Atma and Paramatam. It is a way to join God i.e merge of soul with God and experience of oneness with him. In fact it is the science which deals with the health of body and harmony of mind.
4. **Define Sports Psychology.** (1)
Ans: It is the science which deals with sportsmans behavior to improve performance. It is the branch of applied psychology which deals with sports performance and behavior of a player during training and competition. It explores one behaviors in athletics. The American Psychological Association defines sport psychology as "the study of the psychological and mental factors that influence and are influenced by participation and performance in sport, exercise & physical activity.
5. **Find out the causes of scoliosis ?** (1)
Ans: **Congenital scoliosis** (present at birth) - this is rare and occurs because of the bones in the spine developing abnormally when the fetus is developing in the uterus (womb).
Leg length - if one leg is longer than the other the individual may develop scoliosis
6. **What are the causes of Kyphosis** (1)
Ans: Kyphosis is caused by illness, malnutrition, crowd, deficiency of pure air, insufficient exercises, rickets, carrying heavy loads on shoulders, unsuitable furniture, weak muscles, shyness among girls and habit of doing work by leaning forward etc.
7. **Define Posture.?** (1)
Ans: Posture is a tool of mechanical efficiency of body which causes minimum stress to muscles, moreover maximum output of physical efficiency can be attained.
8. **What is sitting posture ?** (1)
Ans: Sitting posture- Back bone should be erect, the upper region of the back bone should be straight against back of chair, head should in line with hip & shoulder.
9. **What do you mean by Flexibility?** (1)
Ans: It is ability of joint to move to maximum range. Flexibility of individual varies from joint to joint due to many reasons like structure of joint, attachment of ligaments and tendon of joint, surrounding muscle etc. It is of two types an Active (to do the movement without external help and Passive (to the movement with internal help)flexibility.
10. **What do you mean by Protein?** (1)
Ans: Proteins are the basic structures of all living cells. They are complex organic compound which form chain of Amino-acids that contains carbon, hydrogen and nitrogen. It helps to repair or replace the worn out tissues. Protein is complex organic nitrogenous compounds.

19. **Define Strength and explain the types of strength.** (3)
Ans: Strength is the ability to overcome resistance or to act against resistance.
a) Maximum Strength:- It is the ability to overcome or to act against resistance. It is the maximum force which is applied by the muscles to perform any certain activity. For developing maximum strength intensity is high and repetitions are less.
b) Explosive Strength: It is a combination of strength and speed abilities. It is the ability to overcome resistance with high speed. For developing explosive strength, intensity is sub maximum and repetitions are performed as fast as possible.
c) Strength Endurance: It is the ability to overcome resistance or to act against resistance under conditions of fatigue.

20. **Explain any five importance of pranayama in sports.** (5)
Ans:- Importance of Pranayama
Pranayama - the science of breath control, consist a series of exercises intended to meet these needs and to keep the body in vibrant health.
a. Proper Breathing in a Yogic point of view is to bring more oxygen to the blood and to the brain, and to control prana or the vital life energy.
b. It is the only means of supplying our bodies and its various organs with oxygen which is vital for our health.
c. Breathing is one of the ways to get rid of waste products and toxins from our body.
d. Oxygen is the most vital nutrient in our bodies.
e. It is essential for the proper and efficient functioning of the brain, nerves, Glands and other internal organs

21. **What is elimination tournament and draw a fixture of 9 teams having 4 players as the seeded one.** (5)
Ans: A single-elimination tournament.-
 It is also called a knockout, cup or sudden death tournament, is a type of elimination tournament where the loser of each match or bracket is immediately eliminated from winning the championship or first prize in the event.
 Fixture- No of matches- $N-1=8$, $N+1/2=UH$, $N-1/2=LH$, N of byes- $16-9=7$, no of round- 4



22. **Explain in detail the role of Individual in Improvement of Sports Environment and sports related accidents.** (5)
Ans:- **ROLE OF INDIVIDUAL IN IMPROVEMENT OF SPORTS ENVIRONMENT FOR PREVENTION OF SPORTS RELATED ACCIDENTS →**
 a – Proper warming up, b – Regular conditioning, c – Sufficient physical fitness, d- Protective equipments, e – Proper concentration f – Medical check up, g – Check equipments, h- Proper officiating and coaching, i – Controlling aggression & violence, j – Knowledge of health education
 k – Consider sports ethics, l – Follow training principles etc. (Explain the points)

23. Define endurance and explain its types and methods to develop endurance in the body. (5)

Ans: Endurance- Endurance (also called Stamina, or Durability) is the ability of an organism to exert itself and remain active for a long period of time, as well as its ability to resist, withstand, recover from, and have immunity to wounds, or fatigue. In humans, it is usually used in aerobic or anaerobic exercise. endurance. Endurance training which is designed to improve stamina, endurance, and overall performance. Athletes use it while they prepare for both long and short events. People who are not athletes may utilize endurance training as a method to get fit. It is the ability to withstand fatigue.

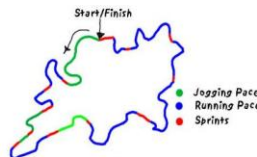
Types of Endurance :

1. **Basic Endurance:** Basis endurance is the ability to perform movements in which large number of body muscles are involved and the activity is performed at slow pace for long duration such as jogging, walking, slow running and swimming.
2. **Speed Endurance:** It is the ability to resist fatigue in activities lasting up to 45 seconds. The event of 400 mts sprint is the most suitable example of speed endurance. This is mainly dependent upon the power and capacity of energy production.
3. **General Endurance:** It is the ability to resist fatigue satisfactorily caused by different types of activities. Activities may be aerobic or anaerobic in nature. These activities may be low or high intensity but for longer duration.

Various methods to develop Endurance ability-

- a) **Continuous method-** The load administered for a prolonged period of time. As the loads are continued for a long time the intensity of running is low. It may be slow continuous, fast continuous and varied pace method.
- b) **Interval type of training** involves repeated efforts at a relatively faster pace, separated by measured intervals of incomplete recovery. It is based on the principle of effort & recovery. It can be classified into short time interval, middle time interval and long time interval.
- c) **Fartlek training-** Fartlek, developed in the 1930s which means "speed play" in Swedish, is a training method that blends continuous training with interval training. The variable intensity and continuous nature of the exercise places stress on both the aerobic and anaerobic systems. Intensity and speed can be varied whenever the athlete wishes. Fartlek training allows the athlete to run freely over varying distances and at varying speeds. Fartlek allows the athlete to run at varying intensity levels over distances of their choice. This type of training stresses both the aerobic and anaerobic energy pathways.

Diagram- 1. Warm up with a steady jog for approximately 7-10 minutes, 2. High intensity sprint, for approximately 60-75 seconds, 3. Light Jog for approximately 130-150 seconds, 4. Cool down with a steady jog for 7-10 minutes, 5. Run hill or stairs, 6. Vertical jump from crouch position, 15-20 times, 7. Push-ups, 8. Sit-ups, 9. Lunges



24. What do you mean understand by motor development? Explain the motor development during childhood. (5)

Ans:- Motor development refers to the development of a child's bones, muscles and ability to move around and manipulate his or her environment.

Motor development during childhood:

Motor development only happens when the child is biologically and mentally ready for it. Motor development is a progression from the top to the toe. It is a specific science, mastering one movement pattern or task does not mean that it will improve or develop other motor skills. Skills that are learnt over and over again are more likely to be recalled for a longer period.

Children also refine their control over gross motor skills, learning to master where they hop, skip, throw and jump. They are able to gain this improved control and coordination due to increase in their flexibility (e.g, their range of movement in joints and muscles), balance, and agility (e.g, their ability to change their body's position, which requires a combination of balance, coordination speed, reflexes, and strength. Kids at this age also learn how to synchronize the movement of their body's various parts, allowing for the development of smoother, more coordinated whole-body movement routines such as are needed for participating in organized sports.

25. Discuss in detail about the Rockport fitness walking Test (5)

Ans. Rockport Fitness Walking Test : This test is very good to measure Cardio-Respiratory fitness of the individual. Thus the objective of this test is to monitor the development of the athlete's maximum Cardio-Respiratory ability (VO₂).

Requirements of Test :

- (i) Running track (200 m or 400 m),
- (ii) Stop watch, (iii) An Assistant/Helper.

Administration of Test :

- (i) Choose a windless day to conduct the test.
- (ii) Record your weight in pounds (lbs)
- (iii) Walk one mile (1609 mt) as fast as possible.
- (iv) Record the time to complete the one mile walk.
- (v) Immediately on finishing the walk record your heart rate (beats per minute).
- (vi) Determine your Maximum Cardio-Respiratory ability (VO₂) from the calculation given below.

Calculation Procedure : Analysis of the result is done by comparing it with the result of previous test. It is expected that, appropriate training between each test should be done to show improvement.

The formula used to calculate VO₂ Max is : $132.853 - (0.0769 \times \text{weight}) - (0.3877 \times \text{Age}) + (6.315 \times \text{Gender}) - (3.2649 \times \text{Time}) - (0.1565 \times \text{Heart rate})$ Where :-

- (a) Weight is in pounds (lbs), (b) Gender : Male = 1 and Female = 0
- (c) Time is expressed in minutes and seconds,
- (d) Heart rate is in beats/minute (e) Age in years.

Evaluation of Test : Students who are fit will have better scoring in test as compared to unfit individual.

26. Recall the adaptive affects that take place in our cardiovascular system after engaging in exercise for a longer period. (5)

Ans. Following are the effects of exercises on the cardiovascular system:

1. **Increase in the size of heart:** We cannot do the exercise or our heart directly, but when we perform any exercise regularly, our heart rate increases. It means our heart performs exercise automatically. This process develops the muscles of the heart.
2. **Decreases in hear Rate:** General an adult has 72 beats per minute while resting, but when he exercises his hear rate increases as per the intensity and duration of the exercise. Even an adult's heart rate increases. But experienced athlete's heart rate remains low in comparison to beginner when both perform same exercises.
3. **Increase in Stroke Volume:** Stroke volume is a volume quantity which the heart pumps out the blood in one single stroke in aorta. Heart's efficiency and big size, Increases the stroke volume
4. **Decreases in cholesterol level:** Regular exercise reduce the cholesterol level in our blood. The level of cholesterol in blood has a direct link with the blood pressure.
5. **Increases in number and efficiency of capillaries:**
6. **Reduced risk of heart diseases:** Regular exercises gradually reduce stress related hormones from circulating in the blood. This results in increase of blood flow path in the blood vessels which in turn lower the risk of building of plague which affects the heart. Hence, exercises reduce the risk of heart diseases.

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SAMPLE QUESTION NO.5

1. **What do you understand by Kyphosis?** (1)
Ans: Kyphosis implies an increase or exaggeration of a backward or posterior curve or a decrease of reversal of a forward curve. Depression of chest is common in kyphosis. It is an abnormal increase in the flexion of the spine i.e outward curvature of the spine with round shoulders and head dropped forward resulting in the hump towards the back. The most common symptoms for patients with an abnormal kyphosis are the appearance of poor posture with a hump appearance of the back or "hunchback," back pain, and stiffness in the back. Most often, these symptoms remain fairly constant and do not become progressively worse with time.
2. **What is Scoliosis?** (1)
Ans:- It is a postural defect in which there may be one large lateral curve extending through the whole length of spine. Scoliosis is a condition in which the spine bends to the side abnormally; either to the right or left. The curvature can be moderate to severe. Any part of the spine can be bent in scoliosis; but the most common regions are the chest area (thoracic scoliosis) or the lower part of the back (lumbar scoliosis).
3. **What do you mean by Projectile & Power** (1)
Ans. Projectile: A projectile is an object on which the only force acting is gravity.
Power: Power is the rate at which work is done (measured in watts (W), in other words the work done per second.
4. **What do you mean by growth food?** (1)
Ans:- Protein which is the combination of oxygen, carbon & hydrogen, helps for proper growth & development muscles & tissues.
5. **Briefly explain about the types of motivation** (2)
Ans:- Motivation means to be inspired to do something and there are two types of motivation:-
Intrinsic:- It is internal motivation- Ex. For own sake or for the country,
Extrinsic:- it is external motivation - reward and award
6. **What is bow legs?** 1
Ans:- This deformity is called as rickets. This is a postural defect in which the lower long bones of the leg get bent. Bowed legs in a toddler is very common. When a child with bowed legs stands with his or her feet together, there is a distinct space between the lower legs and knees. This may be a result of either one, or both, of the legs curving outward. Walking often exaggerates this bowed appearance. Adolescents occasionally have bowed legs. In many of these cases, the child is significantly overweight.
7. **What does the word tournament mean?** 1
Ans:- A tournament is a competition held among various teams in a particular activity according to a fixed schedule where a winner is decided.
8. **What is Lordosis?** 1
Ans:- Lordosis is a common defect in deformity & posture. Here lumbar curve becomes more pronounced and front central position of pelvic region is tilted forward. **Lordosis** is the inward curvature of a portion of the lumbar and cervical vertebral column. Two segments of the vertebral column, namely cervical and lumbar, are *normally* lordotic, that is, they are set in a curve that has its convexity anteriorly (the front) and concavity posteriorly (behind), in the context of human anatomy.
9. **What is positive sports environment?** 1
Ans:- Positive sports environment encourages everyone to perform physical activity with full interest and helps to keep fit and healthy.
10. **Define maximum strength.** 1
Ans:- Ability to act against maximum resistance. Ex.-shot put, discus throw, weight lifting etc.

11. **What is vitamin?** 1
Ans: An organic chemical compound is called a vitamin when it cannot be synthesized in sufficient quantities by an organism, and must be obtained from the diet. Deficiencies of vitamins produce specific disorders.
12. **What is motivation?. What are the techniques of motivation.** (3)
Ans: MOTIVATION:- Motivation is a kind of inner force which energises a man to make constant efforts. In other words motivation is the condition which increases the desire to perform better. In fact 'motivation' is a key to accomplishment. It is one of the most important area in human psychology. It has an immense effect on learning.
TECHNIQUES OF MOTIVATION:-
 1. Knowing the player 2. Goal Setting 3. Environmental factor 4. Presence of Opposite sex etc.
13. **Define carbohydrate and mention its function.** 3
Ans: Carbohydrate- It is an organic compound that consists only of carbon, hydrogen, and oxygen. Carbohydrates are an ideal source of energy for the body. This is because they can be converted more readily into glucose, the form of sugar that's transported and used by the body, than proteins or fats can.
Functions- a. Carbohydrates spare protein so that protein can concentrate on building, repairing, and maintaining body tissues instead of being used up as an energy source.
 b. It is necessary for the regulation of nerve tissue and is the ONLY source of energy for the brain.
 c. Certain types of carbohydrates encourage the growth of healthy bacteria in the intestines for digestion
14. **Discuss about camping in detail.** (3)
Ans: Camping:- Camping means "to live away from the home for a few days in the company of friends or colleagues".
 ;- camping is usually enjoyed with activities like hiking, trekking, rock climbing , etc.
 ;-there may be various types of camping such as Ncc camp , scout camp , Nss camp, etc.
 ;- camping is well planed , well organized, well managed purposeful programme which is organized outside and in natural environment away from homes in the form of temporary residence.
15. **What is protein? What are its types and sources.** 3
Ans: PROTEIN:- For essential growth and repair of muscles and other body tissues. The basic structure of protein is a chain of amino-acid, that contains carbon, oxygen, hydrogen and nitrogen.
Types:- Essential protein and non-essential protein
Sources:- animal Protein:- egg, milk, milk products , meat and fish.
 Vegetables protein:- Pulses, soyabin, mustard, dry fruits and food grains groundnuts etc.
16. **What is posture and describe causes of poor posture.** 3
Ans: Posture-The position of the body; the situation or disposition of the several parts of the body with respect to each other, or for a particular purpose,the position of a figure with regard to the several principal members by which action is expressed.
causes of poor posture- (explain any four points)
 a. Injury and Muscle Guarding, b- Disease and Nutritional State, c- Habit, d- Muscle Tension & Muscle Weakness, e- Mental Attitude and Stress, f- Heredity g- Improper Shoes.
17. **Elaborate any three physiological factors determining endurance.** (3)
Ans: Aerobic capacity:- (i) oxygen intake(ii) oxygen transport (iii) oxygen uptake
 (a) Energy reserves, (b)Lactic acid tolerance, (c) Movement economy, (d) Muscle composition
 Oxygen Uptake:- It is highest rate at which oxygen can be taken up and consumed by the heart per minute.
 Cardiac Output:- The cardiac output is simply the amount of blood pumped by the hear per minute.
 Hydration and Endurance Exercise:- Sweating is normal physiological response to prolonged exercise, required for the dissipation of hear produced during energy metabolism.

18. **Discuss the precautions for taking food supplements.** (3)

Ans: Precautions for taking food supplements:-

:-Do not pay heed to the words of salesmen or advertisements which claim that these supplements will improve child's brain.

;- first of all ensure that there is a lack of essential nutrients in a child needs to take food supplements or not.

;- before purchasing an individual should ensure that it is free from preservatives, contains no fillers and does not contain any added sugar.

19. **Discuss the angular and linear movements in detail.** (3)

Ans: Linear motion;- linear motion is described by straight line movement. It is also known as rectilinear translation. in this the athlete moves in the same direction. **(Explain with examples)**

Angular motion:- To produce angular motion ,movement has to occur around an axis.

20. **What is bulimia? Discuss its types, causes and treatment in detail.** (5)

Ans: Bulimia:- is an eating disorder in which a person eats excessive amount of food and then vomits it in order not to gain weight.

Types:-

1. **Purging Bulimia-** The individuals regularly eating in self-induced vomiting or the misuse of laxities, diuretics.

2. **Non-Purging Bulimia-** The individuals uses other methods to get rid of calories and to prevent weight gain. She/he uses fasting, strict dieting etc.

Causes:-

a) **Psychological Factors-** Problems such as low self esteem, perfectionalism, impulsive behavior, depletion, anxiety disorders.

b) **Social Factors-** The peer pressure as well as media may aggravate the desire to be skinny specially among teenagers. The persons who remain in media are at a high risk of eating disorders.

c) **Family History:** Family history or biological factor plays a role in developing bulimia

Treatment- i) Medications- Anti-depression may alleviate the symptoms of Bulimia along with the psychotherapy or psychological treatment. Fluoxetine is the only antidepressant to treat bulimia.

ii) **Psychological treatment:** - Helps in improving symptoms of bulimia.

21. **Explain any five common postural deformities and explain the corrective measures of any three deformities** (5)

Ans: Five common postural deformities:-

(1)-**Spinal curvature:-**Deformity related to spine. Weak muscles cause the formation of spinal curvature.

(2)**Flat foot:-** the main cause of flat foot is weak muscle. Weak muscles cannot bear the body weight.

(3)**Knock-knees:-**In this deformity both the knees knock or touch each other in normal standing position.

(4) **Bow legs:-** It is also a postural deformity . it is opposite to knock knees. There is wide gap between knees when a bow legged person keeps his feet together.

(5) **Round shoulder:-** In this deformity ,the shoulders become round and sometimes they seem to be bent forward.

corrective measures

1) **Round shoulder-**Standing Chest Stretch, Supine Chest Stretch, Behind the Back Stretch, chakrasana etc.

2) **Flat foot-**Towel Grab, Single Leg Stands, Toe Raises, jumping on toes etc. Activating and developing the arches of the feet,

3) **Knock Knee:** Waking up the inner leg muscles (adductors), and Learn how to move the inner ankle bone inwards towards the outer ankle bone, and upwards towards the knee.

22. Explain the mechanical Analysis of Walking.

1x5=5

Ans: It can be studied in two phases as stance phase & swing phase.

a. Heel strike-The stage begins with the heels touches the ground & continues until the complete foot is on the ground.

b. It is the moment when the complete foot on the ground. The early flat foot stage occurs when the bodys centre of gravity passes over the top of the toe. The main purpose is to allow the foot to act as a shock absorber.

c. Late flat foot- In this stage when the bodys COG passes in front of thje neutral position. This stage lasts when the heel lifts off the ground.

d. Heel rise- This stage starts when the heel begins to leave the ground. In this stage of walking the ground forces that go through the foot are very significant.

e. Toe off-This stage begins when the toes leave the ground completely. This stage continues until beginning of swing phase.

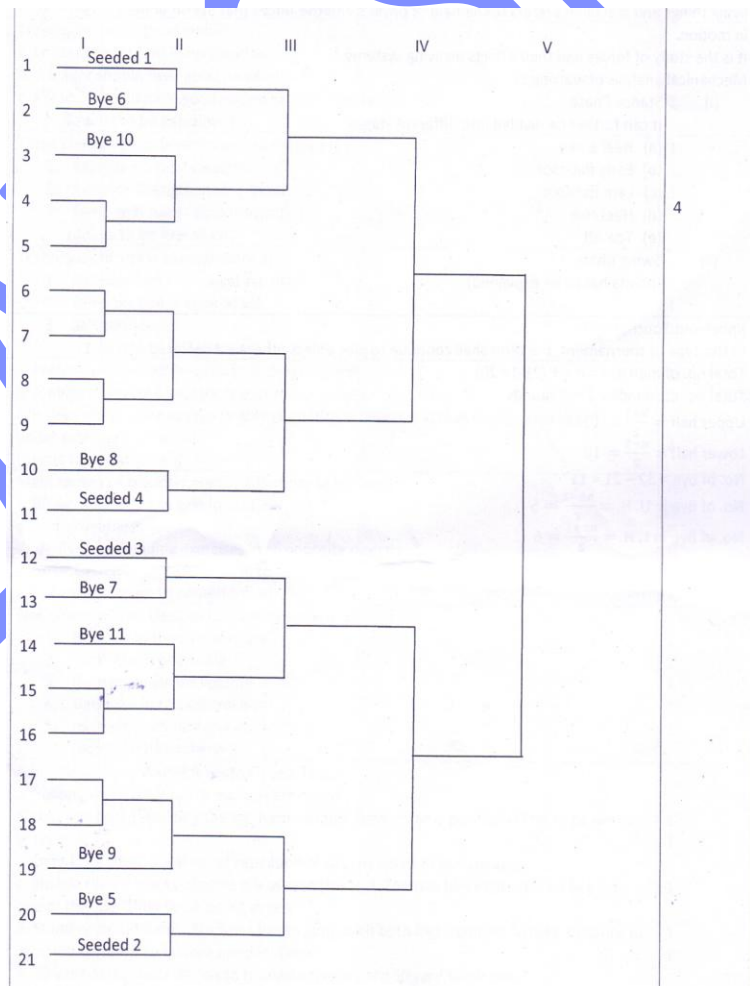
23. What do you mean by knock-out tournament and draw the fixture of 21 teams with 4 teams seeded. 5

Ans: In this type tournament, the term shall continue to play unless otherwise defeated.

Total number of matches = N-1 (21-1=20) Total Number of Rounds = $2^5=5$ rounds

Upper Half = $\frac{n+1}{2} = 11$, Lower Half = $\frac{n-1}{2} = 10$, No. of Bye = $32-21=11$

No. of Bye in Upper Half = $\frac{nb-1}{2} = 5$ No. of Bye in lower Half = $\frac{nb+1}{2} = 6$



24. **Define Projectile and explain the factors which affect the projectile trajectory.** 5

Ans: Projectile: an object thrown into the space either horizontally or at acute angle under the action of gravity is called a projectile. In the field of games and sport there are many examples of projectiles such as putting the shot, throwing a hammer, discus and javelin in athletics.

Three factors affecting projectile trajectory or parabola are follows:

1. **Angle of Projection:** When it is projected or released at the angle of 30 degrees making a parabolic path. It covers less distance when it is projected at the angle of 60degrees and covers more distance when projected a 45 degree angle.
2. **Projection height relevant to the landing surface:** If the height of the projection and the landing surface is equal then release the object at the angle of 45 degree. If the level of he landing surface is more that the height of projection, increase the angle of projection, means above the 45 degree.
3. **Spin:** The spin also affects the flight of an object. In fact the amount and direction of spin acting on a projectile directly affects the distance covered or travelled by the projectile. The main reason behind this fact is the air pressure acting on the ball.

25. **Discuss the points to improve the body image and self esteem in detail.** 5

Ans: 1. To have a positive and optimistic attitude: A positive and optimistic attitude can help individuals to improve body image and self esteem. So one should try to have a positive and optimistic attitude in life.

2. **To change your life style:** Changes in your life style such as adopting a specific diet and with planned exercise programme in order to lose weight, gain muscles or change in body shape and size can be healthy choice.
3. **To identify all the aspects of your appearance realistically:** for improving body image and self esteem, identify all the aspects of your appearance which you can change realistically and which you can't change. It is will know fact that human beings are imperfect.
4. **To stop your intrinsic negative comments:** When you hear negative comments coming from the core of your heart, stop them immediately if you want to improve your body image and self-esteem.
5. **To give compliments about good things done by you;** If you want to improve your self-esteem and body image, do some good things everyday and give compliments to yourself that you really have done good things. This act will give you immense pleasure.

26. **What do you mean by anorexia nervosa? Explain the causes and management of anorexia in detail.** 5

Ans: Anorexia nervosa is a type of eating disorder that affects women and men of all ages. The individuals who have anorexia nervosa, desire to lose weight because they have intense fear of gaining weight, such individuals limit the amount of food intake severely and can become dangerously thin. It is a eating disorder.

Causes of Anorexia:- 1. **Psychological factor:-** The affected individual with anorexia are usually perfectionist 2. **Social Factors:-** Cultural and social pressures to be thin can lead to anorexia in view of participate in ballet, gymnastics etc. 3. **Biological factors:-** If female with anorexia has an offspring, that offspring is ten to twenty times more likely to develop anorexia.

Management of Anorexi;- 1. **Face the reality:-** First of all it is essential to face the reality. Realize of admit it that you have a problem of anorexia. Admit it that your relentless pursuit of thinness is out of your control 2. **Restoring healthy weight:-** An affected person can not recover from anorexia without resorting appropriate body weight. A psychologist can play an effective role in helping the person to return to a healthy weight. A dietician can provide adequate and proper guidance to a healthy diet.

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SAMPLE QUESTION NO.6

1. **What is acceleration?** (1)
Ans: Acceleration is a vector quantity that is defined as the rate at which an object changes its velocity. An object is accelerating if it is changing its velocity.
2. **What is Bye?** (1)
Ans:- BYE: A team which gets bye does not play in the first round. It is a form of privilege to a team which is exempted to participate in the first round.
3. **What is special Seeding?** (1)
Ans:- Special Seeding:- In this the seeded player or team participate directly in Quarter final or Semi final. They need not to wait for longer duration.
4. **Define cardiovascular endurance** (1)
Ans:- Cardiovascular endurance is the ability of heart to deliver blood, oxygen and nutrients present in it to the working muscles for a prolonged period . In other words, it can be said that it is the physical ability to maintain aerobic exercise for prolonged period of time.
5. **What is postural deformity?** (1)
Ans:- Postural deformities are the exaggerated curvature of the spine. The spine is naturally curved but various factors may give rise to the deformities. It reduce the efficiency of individual to great extent & cause more health problem.
6. **What is simple carbohydrate?** (1)
Ans:- Simple carbohydrates are simple sugars with a chemical structure that is composed of one or two sugars. They are refined sugars that have very little nutritional value to the body, and therefore, it's advisable that their consumption be limited to small quantities.
7. **What is body building food ?** (1)
Ans:- Amino acids are the building blocks of protein, which in turn are the building blocks of muscles. While our body produces a number of necessary amino acids within itself, a person will need to get most of his amino acids from high protein diet foods.
8. **Why planning is necessary in sports?** (1)
Ans:- The success of any programme depends upon efficient control ,coordination of activity. It requires many types of committees for good organization of sports events. A well organized programme of PE develops the interest & enthusiasm of students.
9. **Explain the role of organizing committees in tournament** (1)
Ans:- This committee is headed by organising secretary who looks after all the planning for the competition, coordinate with other committee for smooth conduct of tournament.
10. **Find out the objectives of Intramural competition.** (1)
Ans: a.To provide opportunities for individual development through various activities.
b.To provide leadership and fellowship opportunities through participation.
c.To provide recreation for individuals, regardless of their skill ability.
11. **Write a short note on vitamin** (1)
Ans: Vitamins are complex compounds of carbon and essential for normal functioning of body. It is important for metabolism of fats and carbohydrates and helps to repair and maintenance of various tissues. Vitamins are natural substances found in plants and animals and known as Essential nutrients for human beings. Human body uses these substances to stay healthy and support its many functions. There are two types of vitamins: water-soluble and fat-soluble. Deficiencies of vitamins and minerals may be caused by disease states such as mal absorption.

12. **Explain the corrective measures of flat foot.** (3)
Ans: 1) Always wear orthopedics or shoes with built-in support.
 2) Have your feet evaluated on a regular basis.
 3) Avoid prolonged sitting or standing. (Explain)
13. **Find out the purpose of Sit & reach test.** (3)
Ans: The sit and reach test is a common measure of flexibility, and specifically measures the flexibility of the lower back and hamstring muscles. This test is important as because tightness in this area is implicated in lumbar lordosis, and lower back pain. This test was first described by Wells and Dillon (1952) and is now widely used as a general test of flexibility.
14. **Explain one method of cardio vascular fitness test.** (3)
Ans: Harvard step test-This test requires the athlete to step up and down off a gym bench for 5 minutes at a rate 30 steps/minute which measures the Aerobic fitness test. The distance to be covered is 1 mile on normal track. After the workout, timing, heart rate, has to be measured.
 The athlete steps up and down onto a standard gym bench once every two seconds for five minutes (150 steps), The assistant stops the test after 5 minutes
 The assistant measures the athlete's heart rate (bpm) one minute after finishing the test - Pulse 1
 The assistant measures the athlete's heart rate (bpm) two minutes after finishing the test - Pulse 2
 The assistant measures the athlete's heart rate (bpm) three minutes after finishing the test - Pulse 3
 b. Rock fort one mile test- Main objective to to check the the development of vo2 max.
15. **Explain the role of Angular of movement in sports.** (3)
Ans:- Angular momentum is defined as: angular velocity x moment of inertia. The angular momentum of a system remains constant throughout a movement provided nothing outside of the system acts with a turning moment on it. This is known as the Law Conservation of Angular Momentum. (e.g. if a skater, when already spinning, moves their arms out to the side, then the rate of spin will change but the angular momentum will stay the same).
16. **Find the difference between Macro & Micro nutrients.** (3)
Ans: Macronutrients mainly include carbohydrates, proteins and fats and also water which are required in large quantities and their main function being the release of energy in body. Whereas, micronutrients mainly comprise vitamins and minerals which are required in minute quantities. However, both macronutrients as well as micronutrients are essential.
 Macronutrients include Carbon, Oxygen, Hydrogen, and Nitrogen. Micronutrients are chlorine, iron, maganese, zinc, boron, sodium, copper, molybdenum and nickel.
17. **Explain correct sitting & standing posture.** (3)
Ans: Good posture while standing is a straight back, squared shoulders, chin up, chest out, stomach in. If you can draw a straight line from your earlobe through your shoulder, hip, knee, to the middle of your ankle—you've got it.
Sitting posture-Place the feet flat, firmly on the floor and keep your shoulders wide apart. The hips and knees should be bent at 90 degrees. Roll your shoulder back and down, moving the shoulder blades down your back. Your ears, shoulders and hips should be in a straight line, and your back should make an S-shaped spinal curve.
18. **Find out any two test items in Kraus Weber Test.** (3)
Ans: Exercise 1. Bent knee sit up, Exercise 2. Sit up with legs extended Exercise 3. Hip flexors extension 4. Exercise to test the muscles of upper back.
 5. Exercise targets the muscles of the lower back.
 6. Bend forward to touch the floor for three seconds.& this exercise tests overall flexibility, especially in the muscles of the back. (Students has to explain any two in detail)

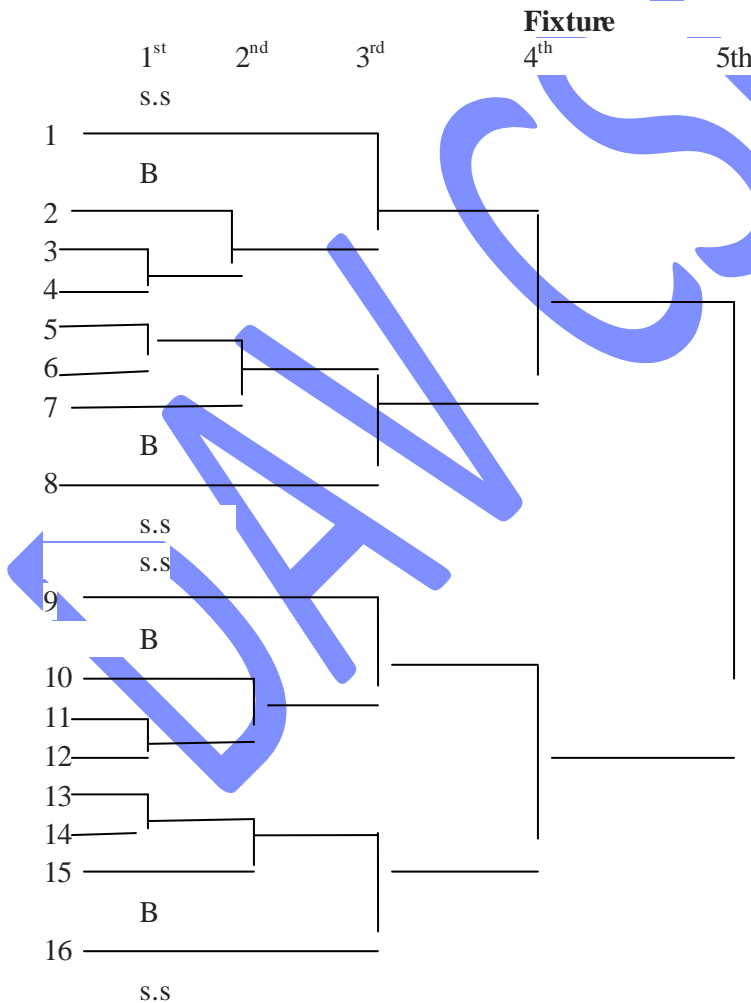
19. **Enlist two types of coordinative ability.** (3)
Ans: Orientation ability- It is the ability to determine the position of body & its parts in time & space in relation to gravity. It depends on functional capacity of sensory organs like eyes & other sense organs.
Reaction ability-It is the ability to react immediately to a signal. They are of two types as simple reaction & complex reaction.
20. **List down the objectives of Planning.** (5)
Ans: a. To keep control over all activities which suggests that planning & control are connected with each other.it also helps in keeping a good control in organizing a tournament.
 b. Reduce the chances of mistake-It suggest programmes can be conducted with proper coordination with least mistakes rather focusing on success.
21. **Explain potential & Kinetic energy in sports.** (5)
Ans: Potential energy is the capacity for doing work that a body possesses because of its position or condition. For example, a stone resting on the edge of a cliff has potential energy due to its position in the earth's gravitational field.
Kinetic energy is energy a body possesses because it is in motion, as described by the following formula. **kinetic energy = 1/2 mass x velocity²**
 2. Kinetic energy seldom ends with a single reaction.
22. **Explain the advantages of correct posture.** (5)
Ans: Explain any three-
 a. Good posture can increase concentration and thinking ability.
 b. Good posture facilitates breathing, naturally enabling you to breathe properly. It opens up your ribs so your lungs have more room to inhale oxygen.
 c. Good posture improves your image. People with good posture look smarter and more attractive. It can also make you look thinner.
23. **List down three types of Continuous training method.** (5)
Ans: Continuous training method is a type of physical training that involves activity without rest intervals It is divided into three parts a. Slow continuous running- intensity will be low and heart beat 60%-80% of HR_{max}. b. Fast continuous training- Intensity will be high and heart beat 85%-95%- of HR_{max}, duration will be 15-20minutes, c. variable pace- It is the combination of both the runnings. This type of training may be of high intensity, or moderate intensity with an extended duration, or fartlek training.
 Exercise modes noted as suitable for continuous training include indoor and outdoor cycling, jogging, running, walking, rowing, stair climbing, simulated climbing, Nordic skiing, elliptical training, aerobic riding, aerobic dancing, bench step aerobics, hiking, in-line skating, rope skipping, swimming, and water aerobics.
24. **Explain in which way sports help in personality development?** (5)
Ans: Sports strips away personality, letting the white bone of character shine through. Sport gives players an opportunity to know and test themselves.”
 a.Team work and inspiration One of the main aspects of playing some sort of sport is that it helps you perform better at your workplace; especially if you are required to work with a group of people.
 b. Improves self-esteem and builds confidence Perhaps, the most important qualities sports inculcate in you are self-esteem and confidence. You learn to take success and failure in the right spirit.
 c. Provides relief from stress: When you are bogged down with work etc, playing some sort of sport helps you stay stress-free and happy.

25. **What is eating disorder and explain any two Abnormal eating habits ?** (5)

Ans: Common symptoms include: Repeated episodes of bingeing and purging
 Feeling out of control during a binge and eating beyond the point of comfortable fullness. Purging after a binge, typically by self-induced vomiting, abuse of laxatives, diet pills, diuretics, excessive exercise, or fasting
 Frequent dieting. Extreme concern with body weight and shape.
 The goal of bulimia nervosa treatment is to stop the binge eating and purging cycles while dealing with any complications brought about by the eating disorder.
 Creating a healthy attitude towards food, Gaining self-esteem, Creating nutritional eating patterns, Preventing relapse

26. **What is Elimination Tournament ? Draw fixture of 16 teams in single elimination tournament where 4 teams are Special seeded.** (5)

Ans: A single-elimination tournament — also called an Olympic system tournament, a knockout, single penetration, or sudden death tournament — is a type of tournament where the loser of each bracket is immediately eliminated from winning the championship or first prize in the event.
 Total nos of Team-16, Total nos of matches -15, Total nos of rounds- 05
 Teams in UH- & LH- 8, Total Nos of bye in UH & LH- 2 each, Total special seeded teams -4



QUESTIONS FOR REFERENCE

1. **Explain various symptoms of stress ?** (1)
Ans: Sign & symptoms of Stress—(Students has to explain any two in detail) Inability to concentrate, Poor judgment, Seeing only the negative, Aches and pains, Diarrhea or constipation, Nausea, dizziness Chest pain, rapid heartbeat Eating more or less, Sleeping too much or too little, Isolating yourself from others, Procrastinating or neglecting responsibilities.
2. **What is Frictional Force?** (1)
Ans: Whenever an object moves against another object, it feels **frictional forces**. These forces act in the opposite direction to the movement. Friction makes it harder for things to move. Frictional forces are much smaller on smooth surfaces than on rough surfaces, which is why we slide on ice.
3. **Define coping strategies in your own words.** (1)
Ans: In psychology, **coping** is expending conscious effort to solve personal and interpersonal problems, and seeking to master, minimize or tolerate stress .The effectiveness of the coping efforts depend on the type of stress/or conflict, the particular individual, and the circumstances.
4. **Find out one factor affecting Projectile.** (1)
Ans: The force of air resistance always decreases the velocity of an object. This mean the horizontal component of the initial velocity will not be constant. So, the force of air resistance is decrease the range.
5. **What is Environment?** (1)
Ans:- The Sum total of all surroundings of a living organism, including natural forces and other living things, which provide conditions for development and growth. The term “environment” refers to the natural setting in which we live. For Example, a “home environment” refers to where we live.
6. **What is ricket?** (1)
Ans:- **Rickets** is a softening of bones in children due to deficiency of vitamin D, phosphorus or calcium, potentially leading to fractures and deformity. Rickets is among the most frequent childhood diseases in many developing countries. The predominant cause is a vitamin D deficiency, but lack of adequate calcium in the diet may also lead to rickets.
7. **Explain the correct sitting posture.** (1)
Ans: Correct sitting posture- Sit up with your back straight and your shoulders back., buttocks should touch the back of chair.. A small, rolled-up towel or a lumbar roll can be used to help you maintain the normal curves in your back. Distribute body weight evenly on both hips.
8. **What is sports nutrition?** (1)
Ans:- **Sports nutrition** is the study and practice of nutrition and diet as it relates to athletic performance. It is concerned with the type and quantity of fluid and food taken by an athlete, and deals with nutrients such as vitamins, minerals, and organic substances such as carbohydrates, proteins and fats.
9. **Mention Pre-meet work for organizing tournaments.** (1)
Ans:- It is the initial phase where organizing committees dis. various charge and form various subcommittees before tournament starts.
10. **What is measurement in sports?** (1)
Ans:- Measurement in Sport assists in evaluating the effectiveness of specific measurement tools.Measurement in Sport and Exercise provides a complete analysis of the tools and methods used in sport and exercise psychology research.
11. **What do you mean by adventure sports?** (1)
Ans:- Defined as activities where there is a high degree of risk to the participant. b) Defined as outdoor activities in which the participant competes in a natural environment against himself / herself.

12. **Enlist the materials requirement for river rafting.** (3)
Ans:- Materials required for river rafting:- It involves the use of a raft for navigating through rivers.
a) A swim suit b) Additional clothing c) Sunshade d) Sun glasses
e) Sun screen lotion f) First aid box g) Life jacket h) Waterproof bags
i) Flash light j) Helmet k) Plastic bags
l) Personal medication
13. **Mention any two advantages of weight training.** (3)
Ans:- advantages of weight training:-
a) Reduces stress and tension: -Weight training is also advantageous for reducing stress and tension. It acts like an outlet for stress and tension.
b) Increases bone density: - It helps in increasing bone density. Research studies which have been conducted in this Field indicates that the risk of osteoporosis is lower for the individual, who perform weight exercises.
14. **What do you mean by oxygen intake and oxygen uptake?** (3)
Ans:- **Oxygen intake:** It is the amount of oxygen which can be taken by the lungs from atmosphere. It depends upon size of chest Strength of respiratory muscle lungs size, number of active alveoli.
Oxygen uptake: It is the amount of oxygen which can be adsorbed a consumed by the working muscles from the blood. It depends on the rate of diffusion which is further determined by speed of blood flow, temp and partial pressure of oxygen in blood. .
15. **What do you mean by dynamic strength and static strength?** (3)
Ans:- **Dynamic strength:-**also called as isotonic strength because it is related to movements. Movements are clearly visible when someone uses dynamic strength. In pull-ups and push-ups, we require dynamic strength.
Static strength:- It is also called as isometric strength . it is the ability of muscles To work/act against resistance. This type of strength is not seen directly. it is measured by a dynamometer.
16. **Mention the material requirement & safety measures of mountaineering.** (3)
Ans: **Plan** your mountaineering carefully, Before each excursion look at the latest **weather forecast** and keep your eye out for any changes in the,
Assess your **fitness level** objectively and choose a suitable excursion. Material required-
(a)Cloths and footwear (b)Ropes and slings (c)Climbing equipment
(d)Skiing equipment (e)Camping equipment (f)Rescuing equipment
(g)Food and water
17. **Explain the role of physical activities in improving quality of life.** (3)
*Ans:*Control your weight, Reduce your risk of cardiovascular disease, Reduce your risk of some cancers Strengthen your bones and muscles, Improve your mental health and mood.
18. **Find the difference between easy & moderate trekking.** (3)
Ans: **Easy trek-**The beginners are offered this trek which consists easy trek, no difficult climbing And provide colourful horizons.
Moderate trek-The Moderate treks begin to present more of a challenge to first time trekkers and are tougher than easy treks .So these treks are suitable for any walker looking for something a little more challenging and energetic.
19. **What do you mean by active & passive flexibility?** (3)
Ans: **Passive flexibility** refers to someone physically moving a part of your body for you. This requires no effort on the part of the patient. For instance, a therapist may grasp your arm gently and move in a circular motion.
Active flexibility exercises are for people trying to increase or maintain flexibility on their own. They require no assistance to perform simple movements, such as arm circles or flexing of fingers.

20. Define combination tournament. Draw a fixture of 16 teams in league cum knock out. (5)

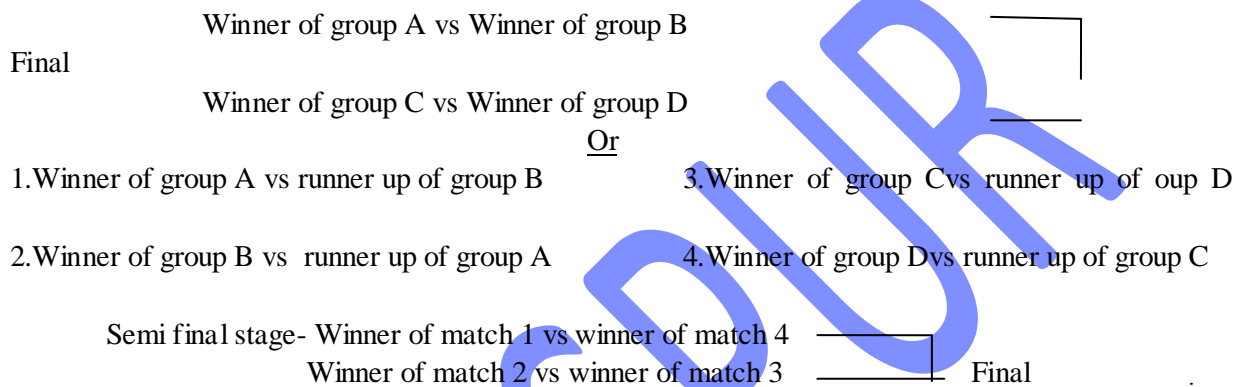
Ans. Combination tournament-These tournaments are conducted when the matches are to be played on group/zonal basis. In other word it is combined with league and knock out format of competition.

League phase (16 teams)-

Group A	Group B	Group C	Group D
1-4 3-4	5-6 7-6	9-10 11-10	13-14 15-14
3-2 1-2	7-8 8-5	11-12 12-9	15-16 13-16

Knock out phase-

Either



21. Diet can enhance the performance of a sports person. Explain (5)

Ans: **CARBOHYDRATES-** Carbohydrates are needed to provide energy during exercise. Carbohydrates are stored mostly in the muscles and liver. Complex carbohydrates are found in foods such as pasta, bagels, whole grain breads, and rice. They provide energy, fiber, vitamins, and minerals. These foods are low in fat. Simple sugars, such as soft drinks, jams and jellies, and candy provide a lot of calories, but they do not provide vitamins, minerals, and other nutrients.

PROTEIN-Protein is important for muscle growth and to repair body tissues. Protein can also be used by the body for energy, but only after carbohydrate stores have been used up. Only strength training and exercise will change muscle. Athletes, even body builders, need only a little bit of extra protein to support muscle growth. Athletes can easily meet this increased need by eating more total calories (eating more food).

Water-Make sure you drink plenty of fluids with every meal, whether or not you will be exercising. It is important to start exercising with enough water in your body. Continue to sip water during and after you exercise -- about 1/2 to 1 cup of fluid every 15 to 20 minutes. Water is best for the first hour. Drink even when you no longer feel thirsty.

Vitamin-A well-planned and nutritionally adequate diet should meet an athlete's vitamin and mineral needs. Supplements will only be of any benefit if your diet is inadequate or you have a diagnosed deficiency, such as an iron or calcium deficiency. Use of vitamin and mineral supplements is potentially dangerous and they should not be taken without the advice of a qualified health professional.

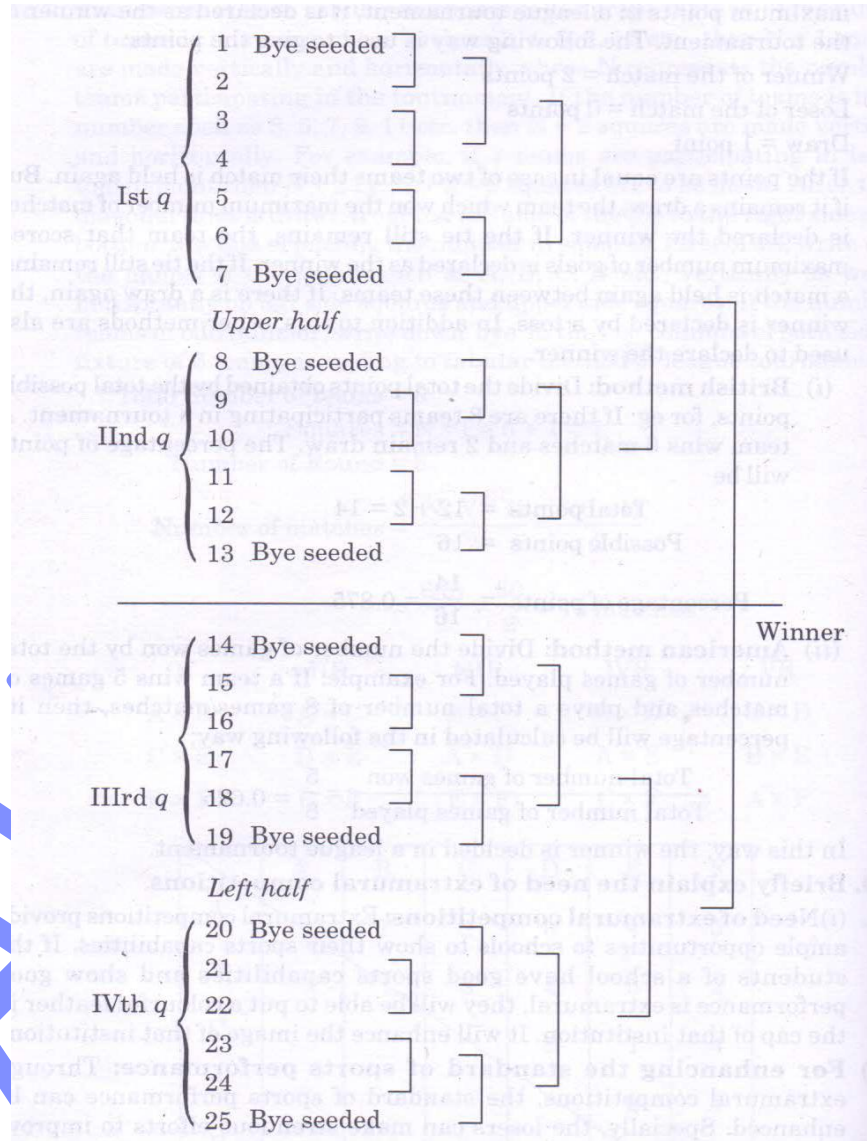
Fat-It provides the highest concentration of energy of all the nutrients. One gram of fat equals nine calories. One pound of stored fat provides approximately 3,600 calories of energy. **Saturated fats** are found primarily in animal sources like meat, egg yolks, yogurt, cheese, butter, milk. This type of fat is often solid at room temperature. **Unsaturated fats** include monounsaturated and polyunsaturated fats, which are typically found in plant food sources and are usually liquid at room temperature.

22. **Discuss any five effects of exercise on Respiratory system** (5)

Ans: Improved tidal volume, Improved vital capacity,
Breathing will be more rhythmic and regular, improved gas exchange capacity,
Improved maximum oxygen uptake,
Faster recovery rate, improved aerobic capacity. (Explain with points)

23. **Draw a fixture of 25 teams on knock-out basis in which 8 teams are to be seeded. (5)**

Ans:- $32-25 = 7$ byes



25. **Define planning.**

Ans: Planning: - It is usually interpreted as a process to develop a strategy to achieve desired objectives to solve problems and to facilitate action.

26. **What do you mean by correct posture?**

Ans: Correct posture :- The posture in which the body is so balanced as to produce least fatigue. It means balancing the body in accurate and proper manner while sitting, standing etc or during any other actions.

27. **What do you mean by gross motor development?**

Ans: Gross motor development: - It involves the development of large muscles in the child's body such as sitting, walking, running etc.

28. **What is cardio-respiratory endurance?**

Ans: The heart's ability to deliver blood to working muscles and their ability to use it, is called Cardio respiratory endurance.

29. **Who is a spectator ?**

Ans: A person who is present at and views a spectacle, display, or the like/member of an audience.

30. **Define leadership.**

Ans: Leadership has been described as "a process of social influence in which one person can enlist the aid and support of others in the accomplishment of a common task.

31. **Define healthy weight.**

Ans: A healthy weight is a weight that lowers the risk for health problems. For most people, body mass index and waist size are good ways to tell if they are at a healthy weight.

32. **What is fine motor skills?**

Ans: Fine motor skills are the coordination of small muscle movements which occur e.g., in the fingers, usually in coordination with the eyes.

33. **What do you mean by ageing?**

Ans: Ageing is the process of becoming older. It represents the accumulation of changes in a person over time. Ageing in humans refers to a multidimensional process of physical, psychological, and social change.

34. **Elucidate two disadvantages of weight training.**

Ans: It can introduce injury and pain if done incorrectly or excessively. It takes a lot of hard work and dedication to achieve high success. It requires a balanced, nutritional diet to be fully effective. Equipment or membership to a gym can be expensive.

35. **State any two dimensions of personality.**

Ans: Neuroticism - A tendency to easily experience unpleasant emotions such as anxiety, anger, or depression. Extroversion - Energy, surgency, and the tendency to seek stimulation and the company of others. Agreeableness - A tendency to be compassionate and cooperative rather than suspicious and antagonistic towards others. Conscientiousness - A tendency to show self-discipline, act dutifully, and aim for achievement. Openness to experience - Appreciation for art, emotion, adventure, and unusual ideas;

36. **What do you mean by Harvard Step test ?**

Ans: The test for measuring cardiovascular endurance of human beings by using easily available and inexpensive equipment. It was started by Brouha in 1943.

NOTE :- APART FROM THIS CBSE HAS INTRODUCED 1 VALUE BASED QUESTION OF 3 MARKS. – HERE IS AN EXAMPLE FOR YOU.

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 accidentally 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? 2. What quality girls have shown by walking together?

Ans: Unity, Coordination, understanding.

Ans: Sportsman spirit

3. What was so special about the race?

Ans: Sportsman spirit

SOME UNSOLVED QUESTION PAPERS FOR YOU

PHYSICAL EDUCATION

Class: XII

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.

- Q1 Give one most important mechanical difference between walking and running. (1)
- Q2 How extrinsic motivation sometime may kill intrinsic motivation? (1)
- Q3 What principles should be followed for goal setting? (1)
- Q4 What do you understand by self-esteem? (1)
- Q5 Which motor quality does a senior citizen lack who finds difficulty in tying the shoe laces while sitting on The chair? (1)
- Q6 In which conditions knock out tournaments are better than Round Robin? (1)
- Q7 What does the organizers intend by stating that, “Only such students shall participate in the Intramurals who have not represented the school in any Football Championship in the past and minimum 10 substitutions shall be compulsory in a 90 min game”. (1)
- Q8 Explain any two objectives of participation in adventure sports. (1)
- Q9 Enlist the equipments required for camping. (1)
- Q10 Calculate the Physical Fitness Index using short formula for a 12 year old boy having completed Harvard step test for a duration of 3 minute and a pulse rate of 54 beats for 1 to 1.5 minute. (1)
- Q11 Why does the weight lifters diet include lots of protien? (1)
- Q12 Explain why are the angle of release for shot-put, javelin and discus throws different? (3)
- Q13 “Friction is a necessary evil”. Justify your answer with suitable examples from sport. (3)
- Q14 Regular physical activities cannot stop the clock of ageing; but definitely it can slow the process. Justify. (3)
- Q15 How can the minimum muscular strength for children assessed? (3)
- Q16 Explain the advantages of correct posture. (3)
- Q17 In sports such as Boxing and Wrestling, the players tend to lose weight sharply. Explain the pitfalls of dieting. (3)
- Q18 Elaborate the various leadership qualities one inculcates by participating in adventure sports. (3)
- Q19 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 they had covered 10 to 15 metres, when accidentally 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: (1x3) (3)
1. What values do they teach?
 2. What quality girls have shown by walking together?
 3. What was so special about the race?
- Q20 Suggest various methods for flexibility training to improve the optimum flexibility. (5)
- Q21 Participation in sport results in all-round development of personality. Justify. (5)
- Q22 Recall the adaptive affects that take place in our cardiovascular system after engaging in exercise for a longer period. (5)
- Q23 Draw a circuit training plan for developing strength among school children. (5)
- Q24 Describe the procedure for administering Rikli and Jones Sr Citizen Fitness Test. (5)
- Q25 Suggest at what age children should be exposed to weight training and justify your answer. (5)
- Q26 While specifying all calculations, prepare a ‘knock-out fixture’ for 21 teams. (5)

PHYSICAL EDUCATION
BOARD SAMPLE PAPER-1
STD-XII -2015

Max Time: 03 Hrs

Max Marks: 70

Question paper consists of 26 questions

All questions are compulsory

1 marks question must be answered 10-20 words

3 marks question must be answered 30-50 words

5 marks question must be answered 75-100 words.

1. Explain Angular motion is also known as Rotary motion. 1
2. Define anxiety is a psychological state of an individual. 1
3. Justify Physical fitness as a measure to control stress. 1
4. Define the term stress. 1
5. Find out the objective behind AAPER motor fitness test. 1
6. Explain Round robin format gives a fair deal to the players. 1
7. Justify the motive behind your school towards organizing a mini marathon to observe National sports day. 1
8. Define the term leader. 1
9. List down the suggestive measure to protect environment related to adventure sports. 1
10. Write a short note on Kraus-weber Test. 1
11. Define Anorexia nervosa as a psychological state of mind. 1
12. Justify the statement with example that friction is a necessary evil. 3
13. Explain Kinetic energy and potential energy in relation to Shot put & Archery. 3
14. Explain the factors which influence the endurance ability of sports persons. 3
15. Find out the role of exercise towards physiological system of children. 3
16. Explain in brief various physical deformities related to the lower limb of the body. 3
17. Justify the statement. We should not belief in food myth. 3
18. Write a brief note on one aquatic sports. 3
19. Mr. Derek Redmond a British athlete was a medal contender in 400mt. event,1992 Barcelona Olympics. In semi final as event started & having lead upto 200mt, he suddenly stopped his run with severe right harmstring injury and fell down in his lane with pain. Immediately as medical team approaches, he refused to leave the track. Mean while from the ground floor of stadium Mr. Jim Redmond happens to be father of Derek approaches towards his son and helps him to stand & told him You can do it. Then Derek Hobbling down the track in one leg crossed the finish line without the help of his father. With huge cheer from the crowd, he told to media with grief "I wanted to finish the race."
Based on the passage, answer the following questions- 3
 - a. Why Derek refused medical assistance ? 1
 - b. What value the father teaches the sporting fraternity? 1
 - c. What was so special about the race. 1
20. Explain various types of developing co-coordinative abilities for ultimate performance by a person. 1x5
21. Suggest various external means/methods of motivating a person for better performance in sports. 1x5
22. Explain various physiological mechanisms responsible for ultimate speed. 5
23. Mention the need of nutritional requirement for the children with precautionary measure. 3+2
24. Find out various procedures to measure the strength of lower body muscles. 1x5
25. Define Fartlek training and list down various characteristic features along with demerits. 1+4
26. Following the suggested guidelines, draw a fixture of 12 teams in league cum knock out method. 2+3

**PHYSICAL EDUCATION
BOARD SAMPLE PAPER-2
STD-XII -2015**

Max Time: 03 Hrs

Max Marks: 70

Question paper consists of 26 questions

All questions are compulsory

1 marks question must be answered 10-20 words

3 marks question must be answered 30-50 words

5 marks question must be answered 75-100 words.

- | | |
|---|-------|
| 1. Define work in the field of sports. | 1 |
| 2. Justify Drive to strive is Motivation | 1 |
| 3. Discuss in brief on Problem focused coping strategies. | 1 |
| 4. What is body Image ? | 1 |
| 5. Find out the aim of Rockfort test. | 1 |
| 6. Intramural provide support to extramural competition. | 1 |
| 7. Explain the demerits of stair case fixture. | 1 |
| 8. Explain the methods of distributing byes. | 1 |
| 9. Define one aquatic adventure sports programme. | 1 |
| 10. Measurement is the quantitative phenomena. Discuss. | 1 |
| 11. Define the science of Nutrition. | 1 |
| 12. Justify the demerits of friction in different sports/games. | 3 |
| 13. Find out the mechanical analysis of walking. | 3 |
| 14. Explain three types of muscular contraction against resistance. | 3 |
| 15. Explain the negative side of weight training. | 3 |
| 16. A correct posture command respect. Justify | 3 |
| 17. What is Anorexia and find out the means of prevention. | 3 |
| 18. Find out the Development of leadership qualities through physical education programme. | 3 |
| 19. Billy Miske (1894-1924) was by all accounts one of the most under-appreciated boxers of his era. He had a record of 48-2-2, which included wins against some of the biggest names in boxing and losses to two champions. But it's not Miske's boxing prowess that makes his story inspirational. It's his willingness and determination to make the ultimate sacrifice for his family. | |
| Miske was diagnosed with a terminal kidney disease by his doctor, given 5 years to live, and told to retire. However, because he knew his family was depending on him financially, he kept jumping the ring and told no one—not even his wife—about his illness. Eventually, after a one-round knockout loss to the great Jack Dempsey, he finally decided to call it quits. But just 11 months later, with his family struggling to get by, Miske somehow conned promoters into giving him a huge fight. | |
| By this time, he could barely walk and thus could not train for the fight. Nevertheless, he entered the ring and knocked out his younger opponent in the 4th round. He took the \$2,400 he earned to buy back furniture he sold due to poverty, as well as some toys for his kids and a piano for his wife. Then he died just a week later at the age of 29. Based on this passage, answer the following- | |
| a. What was so special about Billy Miske as a boxer? 1 b. What values he taught to sporting world ? 1 | 3 |
| c. Give a suitable title to this story. | 1 |
| 20. Explain the types of endurance training and find out various methods to develop endurance ability. | 2+3 |
| 21. Define stress and anxiety & Outline the methods to overcome anxiety in detail. | 2+3 |
| 22. Explain explosive strength and differentiate two types of dynamic muscular contraction. | 1+2+2 |
| 23. Justify Activity improves the quality of life. | 1x5 |
| 24. Explain in detail methods to measure cardiovascular fitness of a person. | 5 |
| 25. How does various coordinative abilities influence performance in sports/games. | 1x5 |
| 26. Plan a list of committees and their responsibilities of inter school CBSE football tournament. | 1x5 |

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----- G O O D L U C K -----

DAV CSPUR