## SAMPLE QUESTION PAPERS PHYSICAL EDUCATION-2016 (XII)

(PREPARED EXCLUSIVELY FOR THE USE OF THE STUDENTS OF DAV PUBLIC SCHOOL, CHANDRASEKHARPUR, BHUBANESWAR, ODISHA)

- TWELVE SAMPLE QUESTION PAPERS COVERING IMPORTANT CONCEPTS FROM AN EXAMINATION PROSPECTIVE (1-7 SOLVED AND 8-12 FOR SELF ASSESSMENT)
- STUDENTS ARE ADVISED TO REFER THE TEXT BOOK AND THE SUPPLIMENT PROVIDED FOR THE BETTER ANSWER THE QUESTIONS PROVIDED HERE.
- ANSWER FROM THE CBSE MARKING SCHEME WITH DETAILED EXPLANATIONS.

### DESIGN OF THE QUESTION PAPER

SL. NO.	TYPE OF QUESTIONS	MARKS FOR EACH QUESTION	NO. OF QUESTIONS	TOTAL MARKS
01	ESSAY	05	07	35
02	SHORT ANSWER TYPE-1	03	08	24
03	VERY SHORT ANSWER TYPE-1	01	11	11
		TOTAL	26	70

### TIME MANAGEMENT FOR THE PRACTICE PAPERS

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

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

### ASSESS YOURSELF ON THE GRADING CHART

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

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

## GOOD LUCK FOR THE EXAMINATION-2016

### -XXXXXXXXXX

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

> PREPARED BY **DEPTT. OF PHYSICAL EDUCATION**, DAV PUBLIC SCHOOL, CHANDRASEKHARPUR, BHUBANESWAR – 751021, ODISHA

## SAMPLE QUESTIONS AND SUGGESTED GUIDELINES OF ANSWERS-2016

## **CLASS-XII**

## **PHYSICAL EDUCATION (THEORY)**

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

## SAMPLE QUESTION NO.

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 in 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 Amenorrhoea ? (1)
	Ans: It is an abnormal absence of menstruation. Physiological states of amenorrhoea are seen most
	commonly during pregnancy and lactation, the later also forming the basis of a form of contrace ption.
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 ant 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)

### 8. Why is friction necessary for movement? Ans: Friction is a force which is applied in a opposite direction and he

*Ans:* Friction is a force which is applied in a opposite direction and helps in maintaining the balance of body.

			SAMPLE QUESTIONS AND ANSWERS OF PHYSICAL EDU	SUGGESTED GUIDEL	<u>NES OF</u> (II - 2015
9.	Define Bulemia Nervosa	9			(1)
).		an eating disorder charac	cterized by consuming a	large amount of fo	
	short amount of time.	C C		C	
10.	What are the symptoms	•			(1)
	Ans: Sweating, Stomach	-			( <b>-</b> )
11.	How does camping crea	0		<b>6</b> ( <b>1</b>	(1)
	activity and become a per	ity by which an individual	can get a chance to lead a	a group for outdoor	
12.		dex score of Harvard step	n test?		(3)
12,	Ans.				( <b>0</b> )
	Rating	Fitness Index	Rating	Fitness Index	7
	Excellent	>96	Below Average	54-67	_
	Good	83-96	Poor	<54	-
	Average	68-82			_
13.		overy phase of an Individua	l or measurement of cardi	ovascular fitness? (3)	 }
201	-	neasured by Harvard step t			
	• •	s :- 100 X test duration in		im of heart beats in	
	recovery periods				
14.	Explain the role of carb	ohydrate in diet?			(3)
	Ans: Carbohydrate: - 1.	Carbohydrate is <mark>the</mark> main :	fuel to the body. It suppl	ies energy and heat	to the
		ion and regulation of fat in			
		oon, hydrogen and oxygen.			_
	_	lism of f <mark>at.</mark> (c) It is highly			
		es - roots, tubers & plant s	_	nprises 6 glucose, N	
15.		onsists fibrous substance li neasures of any three pos		lis, banana, sugar ca	
13.	Ans: Corrective measure		stul al deloi linty.		( <b>3</b> ) 1x3=3
		s of kyphosis sana regularly (ii) Bend yo	our head backward in stan	ding position	172-2
		y) Perform Bhujang Asana		<b>e</b> 1	
	Corrective measures of I				
		(ii) Alternate toe touching	g (iii) Sloop walking		
	(iv) Perform paschim	otan Asana (v) Perform sit	-ups regularly		
	Corrective measures of s	coliosis			
		akra Asana (ii) Chin-ups	••••	t stroke technique	
		Asana (v) Perform Tarra A			
		ne corrective measures of a	•		
16.	_	g & Wrestling, the player	rs tend to lose weight sha	rply. Explain pitfa	
	diating ?				(3)
	Ans. Pitfalls of Dieting a		ant to loss maight you th	w to pot loss and dri	nlr 1000
		ugh drinking: when you w juices, sodas, coffee and i		•	
	-	calories: it is a fact that			
	-	er of calories they consur	-		-
	number of calories you ta	•	ne. 50, it is essential to		sut the
	•	the biggest toll on wate	er reserves of our body	v. Loss of water i	mpairs
	-	on and therefore overworks			1 ~

(check/reduces) circulation and therefore overworks the heart and kidneys. 5. Not performing exercises. 4. Intake of lebelled foods.

#### 17. Define eating disorders and elucidate upon any one?

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 ?

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. Value Based.

Kick-Boxing and Taekondo are group fitness workouts that combine martial arts maneuvers, boxing moves and traditional group exercise activities. Participants execute a variety of punches and kicks, building movement combinations that involve the entire body.

### Based on the information above, answer the following questions:

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

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

Ans:-1 They are group fitness workouts, 2- yes, they are effective forms of exercise because of variety of punches, kicks that involved the whole body movement. 3- a) Self defence, b) confidence & courage.

#### 20. Define knock knee and explain its corrective measures?

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 valgues 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.

#### 21. 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.

(3)

4

3

(3+2=5)

**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.

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

Ans. The test used to measure fitness of senior citizen is Rikili 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.

23. 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 tournament1

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

Number of Round = N - 1 = 9 - 1 = 8 round Stair case method (Round)

Stair e	Stair case methoa (Rouna)						
$1^{st}$	$2^{nd}$	3 <sup>rd</sup>	$4^{\text{th}}$	$5^{th}$	$6^{th}$	$7^{\text{th}}$	$8^{th}$
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.

SAMPLE QUESTIONS AND SUGGESTED GUIDELINES OF ANSWERS OF PHYSICAL EDUCATION FOR CLASS-XII - 2015

### 24. Define Stress and elucidate its management techniques.

*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 in your own words)

### 25. What are the factors affecting the motor Development of Children?

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 opposingforce that comes into play when one body is actually sliding over the surface of the other body is called rolling friction. For example, ice-sketing 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 types of cycle. Still it can be said that friction is a advantage for the sports.

(1+4=5)

(5)

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 tennis elbow? (1)
	Ans. It is a common cause of pain along the outside aspect of elbow. Causes include result of fall, over
	use, repetitive lifting, carrying etc. It is also called lateral epicondylities.
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
0	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
0	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
10	1. Increase in hear rate and stroke volume 2. Increase in cardio output 3. Increase in size of lungs and char
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.	Explain the concept of fluid and meal intake before competition or training? (1)
	Ans. Your pre-competitive meal should be high in carbohydrate, low in protein, fat and fibre. Ex. Food
	include breakfast, cereals, bread, toast, fruit juice, boiled rice, potatoes, carbohydrate drinks etc.
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.)
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#### 13. **Explain any three Macro Nutrients of diet ?**

Ans. The three Macro Nutrients of diet are, (a)Proteins explore (b) Fat explore (c) Water explore

### Three elements of diet are

(3)

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 CHO<sub>2</sub>. 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 stanch. 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 amono-acids out of these, 9 amono-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) (3)

#### 15. Mention the Bone Injuries in detail.

Ans. Bone Injuries : Bone injury is usually causes in games and sports either during practice sessions in the competition. Fracture is known as broken or cracked bone. It is caused accidently by a wrenching force.

The fractures are :

(i) Simple Fracture : In this type of fracture, bone breaks from only one place. Sometimes hair line fracture is there. Bone is cracked or broken without wounds.

(ii) Multiple Fracture or Compound Fracture : A compound fracture is the fracture in which bones are craked or broken with wounds and results with bleeding. In this, bone is compressed and broken at more than one places.

(iii) Green Stick Fracture : In this facture bone does not break completely. This type of fracture generally occurs in children.

(iv) Impacted Fracture/Open Fracture : In this fracture, the edge of a broken bone impacts into another one and sets there or one broken part is overlapped the other part.

(v) **Comminuted Fracture :** In this type of fracture, bone is broken into several parts or bone in broken into small pieces. (*Line figures may be inserted for a better answer*)

#### 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:

- Lack of female sports persons as role model. (a)
- (b) Lack of media coverage and poor interest of spectators
- (c) Fewer number of women coaches
- (d) Poor education among women.
- Attitude of society towards women's sports participation (e)

### 17. Explain food myths.?

*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?

*Ans:* i) **To encourage creativity:-** To encourage creativity in participants is the sports. These sports allow new menoeuvers 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. Value Based-

Recently, Krishna Punia, a Discus thrower approach the Govt. of India for not giving her Rajiv Gandhi Khel Ratna Award. As per the rules, one who gets first, second or third place at Olympic Games is entitled for this award, but she didn't reached that position but claimed the award. No doubt she as an excellent athlete but the decision did not favour her.

1. Name the Highest National Sports Award? Ans:- Rajiv Gandhi Khel Ratna Award

2. Who is eligible to get Rajiv Gandhi Khel Ratna Award?

- Ans:- one who gets first, second or third place at Olympic Games in the same year
- 3. Do you agree with the decision by Govt, of India on Krishna Punia

Ans:- yes I agree with the decision of Govt. of India as we can't go against the rules of eligibility condition.

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

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) Femily and school: We do not develop our body image all on our own. The femily, school

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.

## 21. 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 (thining 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:

(3)

(3)

(3)

- 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.
- 22. 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 pedagogie 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 indurance. 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.

### 23. Discus the effect of food supplements on children in positive and negative manner

*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.

1+2+2=5

(5)

© 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, it 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.

### 24. Suggest various methods for flexibility training to improve the optimum flexibility.

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 kthe 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.

### 25. Define Round Robin tournament and draw a fixture of 8 teams by any method. *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-n(n-1) = 8(8-1) = 28

$$\frac{n(n-1)}{2} = \frac{\delta(\delta-1)}{2} = 2$$

No of rounds- N-1= 8-1=7 Fixture- Cyclic method

<u>Fixture</u>

1 <sup>st</sup> round	2 <sup>nd</sup> round	3 <sup>rd</sup> round	4 <sup>th</sup> round	5 <sup>th</sup> round	6 <sup>th</sup> round	7 <sup>th</sup> 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

### 11

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### 26. Explain in detail the AAHPER Test.

Ans. AAPHER 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) **Shutlle 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. Form 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 thesubject 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

## SAMPLE QUESTION NO.3

### 1. What is Seeding?

*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 <u>bracket</u> in a manner that is typically intended so that the best do not meet until later in the competition.

#### 

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 ?

*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?

*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 ?

*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.

*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?

*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.

*Ans:* various committees- a) Organizing secretary, b) Accommodation, c) Refreshment, d) Technical, e) Official, f) Press & publicity committees etc. (Mention any four)

(1)

(1)

(1)

(1)

(1)

(1)

(1)

#### 12. Define fat and mention its function

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.

#### Explain in brief the nutrition to be consumed in different stages of competition. 13.

Ans. It is nutrition before, during and after the completion or training. Before competition it is complex carbohydrate food which usually helps in enhancing the glycogen stores. During competition it is essential to stay hydrated and to maintain blood sugar levels so that sportsperson may not feel fatigue. After competition it is essential for getting proper recovery, energy level and the replacement of fluid loss. (Explain in brief of these)

#### 14. What are the methods of endurance development? 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 ideology. Discuss ideology in terms of women & sports participation in brief? (3)Ans: Ideology is a set of beliefs that are share by the members of social group. It is the imaginary relation to the real conditions of existence. In first Olympics of 1896 there was no participation of women but started to participate in 1900 Olympics onwards. Over the past few decades the participation of women in sports field has increased tremendously. Number of women have been defying the obstacles related to participation of women in sports.
- Differentiate between Isometric and Isotonic exercises 16. (3) Ans:- ISOMETRIC EXERCISE  $\rightarrow$  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**  $\rightarrow$  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?

> **Ans:** LORDOSIS CAN BE CURED  $\rightarrow$  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

#### What are Fats. What are its types and sources? 18.

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 cholesterols (LDL) while raising levels of good cholesterols (HDL). Sources include vegetable oils (olive & canola oil), nuts, seeds and seafood (salmon, tuna, shrimp).

(3)

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(3)

(3)

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(3)

### 19. Value Based

15

You are in-charge of your health. Many of the decisions you make everyday have an impact on the quality of your life both now and in future. By making positive choices large and small, you help to ensure a life time of wellness.

**Q-1** Why do we say that health is in your hands. *Ans:-* Because we are responsible for every decision we make about our life style. **Q.2** What do you mean by life time wellness. *Ans:-* It include being physical active choosing healthy diet, healthy body weight, managing stress effectively and protecting one's self from disease and injuries. **Q.3**-What is the most important value in our life. *Ans:-* to live a good quality of life.

- 20. Elaborate the various leadership qualities one inculcates by participation in Physical activities?(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.
- 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 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

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SAMPLE QUESTIONS AND SUGGESTED GUIDELINES OF ANSWERS OF PHYSICAL EDUCATION FOR CLASS-XII - 2015

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

23) 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)



*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-D**igestion 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.

24.

**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 to 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.

(5)

**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. 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.

- 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. 2) 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) <u>pace run or races</u>. 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.

## 26. Weight training for children should be provided for better performance. Write in favour & against on this child centered activities. 5

**Ans:** Weight training for children to strengthen specific muscles by causein them to overcome a fixed Resistance. It will help the children through the activity where weight in the form of bar-bells and dumb-bells are sued to condition and alter the sizes of various segments of the body.

Children should be sufficiently mature that they can respond to coaching advice, and will behave appropriately.

It helps in getting good shape, providing fitness, enhancing athletic performance, develop strength, increases bone density, reduce stress and tension etc. (explain in brief)

Favour:- Weight-training should form only part of a child's exercise regime (sports, play and other movement related activities are also important).

Children should avoid maximal or near-maximal lifts. Children should be supervised at all times during their weight-training sessions

Weight training against children-

a. Needs supporter- Child should not be allowed to practice of his own.

b. risk of injury- The organs of a child may not be suit to overcome high intensity activity which poses

a great danger.

-XXX-

## SAMPLE QUESTION NO.4

### 1. Define the term Osteoporosis among?

*Ans:* It is a medical condition in which the bone becomes fragile from loss of tissue or deficiency of calcium or vitamin-D. It decreases the bones strength and increases the risk of bone fracture.

### 2. What is Motivation?

*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. Write the names of forces which act upon projectile?

Ans: There are forces which act upon projectile and influence the parabolic path like gravity, air-resistance and initial velocity.

### 4. Define Sports Psychology.

*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 ?

*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. Define Posture.?

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.

### 7. What is sitting posture?

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.

### 8. What do you mean by Flexibility?

*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.

### 9. What are the causes of Kyphosis

*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.

### 10. What do you mean by Protein?

*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.

### 11. What is fixture?

*Ans:* It is a process of arranging the teams in systematic order in various groups for competition fights or physical activity. In other words it is a set up of various teams for competitive matches where they play in systematic order as per schedule.

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#### 12. What is the meaning of conservation of environment and explain in brief the conservation of water? (3)

Ans: Conservation of environment simply implies the sustainable use as well as the management of natural resources such as wildlife, water, air, energy and earth deposits. Conservation of environment does not mean that the kuse of natural resources should be stopped.

### Conservation of Water:

1 Lay stress on rainwater harvesting 2. Check and stop any leakage in water taps/pipes.

3. Use the ground water in a fair way. The misuse can be prevented by drip irrigation.

- 4. Set up water purifying water flowing out of industries
- 5. Efforts should be made to stop all the processes causing water pollution.
- Friction opposes the motion of one body over the others. How it is useful in sports? 13. (3) Ans: Helps to move, Helps to stop moving the object, Helps to hold or grip an object, Helps to keep object in position. (explain in brief)

#### 15. Write a short note on specific Sports programmes

Ans:- Specific sports programme are such programmes of sports which are not usually related to competitions.

### 1) Run for fun, 2) Run for specific causes, 3) Run for Unity.

These sports programmes have various objectives such as creating awareness among people regarding unity, health and diseases like aids, swaine flue etc. Health run, run for fun, run for unity, run for awareness, run for specific casuse etc. are the example of specific sports programmes. Sports & games programmes are arranged to promote the games & sports for a specific purpose, Like health, religion, national integration or any other social issues. It should motivate & create feeling to take part in sports programme. These programmes organized by federations, NGOs, keep aware people about their health related sports programmes.

#### Discuss any three pitfalls of dieting? 16.

Ans:- 1. Restriction on some nutrients: Generally some nutrients like carbohydrates and fats are restricted in dieting. If we don't take all the nutrients in required amounts our proper functioning will be impaired.

2. Skipping Meals; it is a fact that if we have good metabolic rate, we can maintain or lose weight. If it is low we gain weight very easily. So, if we skip meals, it will lower or metabolism to conserve energy.

3. 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 we take in our diet. (3)

#### 17. Discuss female athlete triad

Ans:- It is a syndrome in which eating disorder, amenorrhea and osteoporosis are present. It is the condition seen among female athletes that emphasizes leanness or low body weight. Various symtomps fatigue, frequent injury, loss of power and irritability.

#### 18. Define Leadership. Explain the leadership qualities in physical education?

Ans:- Leadership is the ability to internally provide positive influences on the lives and behaviors of other. The leader should possess qualities that are sought for and admired by followers.

### The qualities of leadership are given below:

- (i) **Energetic:** To be energetic is necessary for a leader in the field of physical education.
- Intelligence: A leader of physical education should have intelligence. In fact intelligence is the (ii) ability of an individual to find out the possible solution f various complex problem.
- Good Health: A leader in the field of physical education should have good health. Such a (iii) leader can work for longer duration without any feeling of fatigue.

#### 19. Value Based

Walking, jogging and running are most popular forms of training for people who want to improve body composition and muscular endurance of the legs. The faster you pace or longer you exercise the more calories you born. Greater the calories you born higher the potential training effect of these activities.

**O-1-** Which activities are best suited to maintain your body composition. **Ans:-** Waling Jogging & Running.

19

(3)

(3)

(3)

(3)

**Q-2-** What is the relation between pace and duration of exercises. **Ans:-** Faster the pace and longer you exercise the more calories you will burn.

**Q-3-** What values are not shown by people who never exercise for body composition. **Ans:** Awarness regarding health issues inactive lifestyle with withdrawing attitude.

### 20. Discus the Soft Tissue Injuries in detail

Ans. Soft Tissue Injuries : (i) Strain (ii) Sprain (iii) Contusion (iv) Abrasion (v) Wounds.

(i) **Strain :** Strain is the result of stress or force applied on muscles. In this, the muscle or muscle tendons are over stretched. There is severe pain at the site of injury. Such injury takes place in athletics, skiing and gymnastic etc.(ii) **Sprain :** A sprain may be defined as an injury of a ligament resulting from overstretched or torn. Swelling, pain and tenderness can be felt at the sprained part. Sprains may take place in weight lifting, athletics and tennis etc.(iii)**Contusion :** Contusion is caused by the blow or impact without breaking or rupture of the skin pain and sometimes swelling on the effected part. Such injuries take place in sports like hockey, boxing, basketball etc.(iv) **Abrasion :** Abrasion is the injury of skin in which skin is scrapped or rubbed by fraction or fall during any game/sport. It causes severe pain and sometimes bleeding. Such injury occurs in sports like wrestling, football, cricket, jumps etc. **Preventive Measures for Soft Tissue Injuries :** 

(i) Complete warming should be done.(ii) Scientific knowledge about rules and regulations.

(iii) Proper warming-up before participation. (iv) Crepe bandage should be wrapped.

- (v) Playing under rules and regulation.(vi) Player should not continue to play in case of fatigue.
- (vii) Playing surface should be made smooth. (viii) If over-tired or aggressive, stop playing.
- (ix) Wearing protective gear.(x) Allow lot of time for warming up and cooling down.

(xi) Player should be careful and alert during the training and competition.

(xii) All the sports equipment must be of good quality (xiii) Good officiating is essential during the practice or competition. (xiv) Train on different surfaces using the right footwear.

(xv) Special attention should be given towards stretching of joints.

## 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 <u>elimination tournament</u> 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. Mention the major physiological changes in older age. Elaborate the role of physical activities in delaying the ageing process. 5

*Ans:* Physiological changes:- Changes in - muscle size & strength, metabolism and body composition, bone density, respiratory, cardio-vascular, nervous, gastrointestinal & urinary system, flexibility, senses, vision, hearing, test, small etc. (Explain as per the marks)

(5)

**Role of physical activities:-** Reduces the loss of muscle mass, the risk of age-related diseases, stress & tension, a helps in maintaining bone density, slows down brain ageing, improves muscular strength, flexibility, enhances the capacity of lungs etc. (Explain as per the marks)

23. Define endurance and explain it types and methods to develop endurance in the body. (5) *Ans:* Endurance- Endurance (also called Stamina, or Durability) is the ability of an <u>organism</u> 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 <u>aerobic</u> or <u>anaerobic exercise</u>. 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

### **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 cause 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 are 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 1930,s which means "speed play" in <u>Swedish</u>, is a training method that blends <u>continuous training</u> with <u>interval training</u>. The variable <u>intensity</u> and continuous nature of the exercise places stress on both the <u>aerobic</u> and <u>anaerobic</u> 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 anaerobi

**Diagram-** 1. Warm up with a steady jog for approximately 7-10 minutes, 2. High intensity sprint,

for aproximately 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 referes 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, learing 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 lhow 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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AMPLE QUESTIONS AND SUGGESTED GUIDELINES OF SWERS OF PHYSICAL EDUCATION FOR CLASS-XII - 2015

## SAMPLE QUESTION NO.

#### 3. What do you mean by Projectile & Power

#### **Projectile:** A projectile is an object on which the only force acting is gravity. Ans.

**Power:** Power is the rate at which work is done (measured in watts (W), in other works the work done per second.

#### 4. What do you mean by growth food?

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

Ans:- Motivation means to be inspired to do something and there are two types of motivation:-Intrinsic:- It is international motivation- Ex. For own sake or for the country, *Extrinsic:*- it is external motivation - reward and punishment

#### 6. What is bow legs?

Ans:- This deformity is called as rickets. This is a postural defect in which the lower long bones of the long 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. 1

#### 7. What does the word tournament mean?

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?

Ans:- Lordosis is a common defect in deformity & posture. Here lumber 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. **Define the term laceration?**

**Ans:**- Laceration is a irregular tear like wound cause by some blunt trauma, it may appear liner (regular) or stellate (irregular).

#### 10. Define maximum strength.

Ans:- Ability to act against maximum resistance. Ex.-shot put, discus throw, weight lifting etc.

#### 11. What is vitamin?

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.

Ans: MOTIVATION:-Motivation is a kind of inner force which energies 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.

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(1)

(1)

(1)

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(1)

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(3)

### **13.** Define carbohydrate and mention its function.

*Ans:* Carbohydrate- It is an <u>organic compound</u> that consists only of <u>carbon</u>, <u>hydrogen</u>, and <u>oxygen</u>. 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 <u>proteins</u> or <u>fats</u> 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.

*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.

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.

*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.

<u>causes of poor posture</u>- (explain any four points)

**a.** <u>Injury and Muscle Guarding</u>, 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.

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.

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. Value Based

Once upon a time during football match in a stadium between Bihar and Odisha teams were playing against each other. When one player of Bihar team intentionally make a foul because of which he fell down. The other players saw this and informed the referee about it. The referee was shocked to see the

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facture and immediately arranged for an ambulance. Later on the Bihar player released that he should not have done at the cost of wining.

Q-1- What should be the aim of playing a match.

Ans:- Fair Play

Q-2- Should the referee panalised the Bihar player.

Ans:- yes, he should be penalized for his intentional act which is against the sprit of play.

Q-3- What values are not shown by the Bihar team player. Ans:- Sportsmansprit, fair play, sympathetic attitude.

### 20. What is bulimia? Discuss its types, causes and treatment in detail.

*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, perfectionalisim, impulsive behavior, depletion, anxiety disorders.

- **b)** Social Factors- The peer pressure as well as media may aggravate the desire to be skinning 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 plys 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.

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.

(5)

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

**c.Late flat foot-** In this stage when the bodys COG passes in front of this 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

<u>Ans:</u> 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



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

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 60 degrees 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.

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

Ans: Acceleration is a vector quantity that is defined as the rate at which an object changes its velocity.

Ans:- Special Seeding:- In this the seeded player or team participate directly in Outer final or Semi

it to the working muscles for a prolonged period. In other words, it can be said that it is the physical

various factors may give rise to the deformities. It reduce the efficiency of individual to great extent &

sugars. They are refined sugars that have very little nutritional value to the body, and therefore, it's

Ans:- Amino acids are the building blocks of protein, which in turn are the building blocks of muscles.

## **Explain** the role of organizing committees in tournament

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.

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

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.

ability to maintain aerobic exercise for prolonged period of time.

advisable that their consumption be limited to small quantities.

most of his amino acids from high protein diet foods.

of PE develops the interest & enthusiasm of students.

An object is accelerating if it is changing its velocity.

which is exempted to participate in the first round.

final. They need not to wait for longer duration.

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What is acceleration?

What is special Seeding?

**Define cardiovascular endurance** 

What is postural deformity?

cause more health problem.

What is simple carbohydrate?

What is body building food ?

Why planning is necessary in sports?

What is Bye?

28

### (1) Ans:- BYE: A team which gets by does not play in the first round. It is a form of privilege to a team

(1)

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### (1) Ans:- Cardiovascual rendurance is the ability of heart to deliver blood, oxygen and nutrients present in

### (1) Ans:- Postural deformities are the exaggerated curvature of the spine. The spine is naturally curved but

(1) Ans:- Simple carbohydrates are simple sugars with a chemical structure that is composed of one or two

## While our body produces a number of necessary amino acids within itself, a person will need to get

(1)

(1)

Ans:- The success of any program me depends upon efficient control, coordination of activity. It requires many types of committees for good organization of sports events. A well organized programme

(1)

(1)

(1)

### 12. Explain the corrective measures of flat foot.

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.

*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.

*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 - Pulse1 The assistant measures the athlete's heart rate (bpm) two minutes after finishing the test - Pulse2 The assistant measures the athlete's heart rate (bpm) three minutes after finishing the test - Pulse3 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.

*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.

*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.

*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. *Ans:* Exercise 1. Bent knee sit up, Exercise 2. S

- 2. Sit up with legs extended Exercise
- 3. Hip flexors extension
- 4. Exercise to text 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)

## 29

(3)

(3)

(3)

(3)

(3)

(3)

(3)

### 19. Value Based

Risk factor for cardiovascular diseases fall into two categories, those you can do some thing about such as Physical Activity, levels of stress and those you can't such as age & ethnicity. These are long term process that can begin when you are young, its important to develop heart – healthy habits early in life. **Q-1-** What is cardio-vascular disease. *Ans:-* it is disease of the heart and blood vessels

Q-2- Who are less prone to cardiovascular diseases. *Ans:*- People who have less stress in life and performed regular exercises.

**Q-3-** Mention the values you will imbibe in your life from above paragraph. *Ans:*- Follow a regular routine of exercise from young age, leave a healthy and stress free life.

### 20. Explain in detail the objectives of Planning.

*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.

*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 velocity^** 

2. Kinetic energy seldom ends with a single reaction.

### 22. Explain the advantages of correct posture.

### 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.

Ans: Continuous training method is a type of <u>physical training</u> that involves activity without <u>rest</u> <u>intervals</u> It is divided into three parts a. Slow continuous running- intensity will be low and heart beat 60%-80% of HR<sub>max</sub>. b. Fast continuous training- Intensity will be high and heart beat 85%-95%- of HR<sub>max</sub>, 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 <u>fartlek</u> 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?

*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.

(5)

(5)

(3)

(5)

(5)

(5)

**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 ?

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 <u>bulimia nervosa</u> treatment is to <u>stop the binge eating</u> 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 <u>tournament</u> 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

Fixture  $1^{st}$  $2^{nd}$ 3<sup>rd</sup>  $4^{\text{th}}$ 5th s.s 1 В 2 3 5 7 В S.S s.s 9 В 10  $11 \cdot$ 12- $13^{-1}$ 14 - 1415 B 16 s.s

-XXXXX-

(5)

## SAMPLE QUESTION NO.7

#### 8. What is sports nutrition?

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.

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?

Measurement in Sport assists in evaluating the effectiveness of specific measurement Ans: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?

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.

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.

**Explain various symptoms of stress ?** 

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.

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?

Ans:- The Sum total of all surroundings of a living organisim, 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?

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.

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.

(1)

(1)

(1)

(1)

32

(1)

(1)

(1)

(1)

### (1)

(1)

## (1)

### **12.** Enlist the materials requirement for river rafting.

Ans:- Materials required for river rafting:- It involves the use of a raft for navigating through rivers.

- a) A swim suitb) Additional clothing
- tional clothing c) Sunshade f) First aid box g) Life
- e) Sun screen lotionf) First aidf) Flash lightj) Helmet

g) Life jacket h) Waterproof bags

d) Sun glasses

- k) Plastic bags i)Personal medication
- **13.** Mention any two advantages of weight training.

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?

*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 alve oli,

**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?

*Ans:-* **Dynamic strength**:-also called as isotonic strength because it is related to movements. Movements areClearly visible when someone uses dynamic strength. In pull-ups and puss-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 an dynamometer.

# 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

**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. Value based-

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

- a) "The verdict of CAS upholds the gender equality in sports". Justify
- b) What should be the role of IAAF towards the drug free sports?
- c) What value Dutee Chand teaches to the sporting community?

33

(3)

(3)

(3)

(3)

*Ans:* **a**-Yes, the decision of CAS is upholds the gender equality in sports, when a sports person don't know his/her hereditary body strength and capacity and not tested positive in the prohibited substances then where the question of male and female is arises.

**b.** The IAAF is proud of its position at the forefront of the global fight against doping in sport, and is resolutely committed to athletics, and to the preservation of a zero-tolerance policy with respect to doping.**c.** Without loosing hope, She fought like a true fighter in legal way and finally her all out effort towards Athletics has been paid off and came back successfully.

20. 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)-

Leagu	ie pliase (10 i	teanis)-		
Group	рA	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		
	W	inner of group A vs Winner	of group B	
Final				
	W	inner of group C vs Winner	of group D	
			Ör	
1.Wir	nner of group	A vs runner up of group B	3. Winner of group Cvs	runner up of oup D
2.Wir	nner of group	B vs runner up of group A	4. Winner of group Dvs ru	inner up of group C
	Semi final	stage- Winner of match 1 v	s winner of match 4	
		Winner of match 2 vs	s winner of match 3 — F	Final .

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.

(5)

### 22. Discuss any five effects of exercise on Respiratory system

*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. What is work, Power and Energy?. State their role in sports with the help of examples (5) *Ans:-* Work- Product of force and the amount of displacement in the direction of that force is work. To determine the amount of work we should know a) average force exerted on the object, b) direction of the force, c) displacement of the object, Ex- all isotonic movements of sports like bench press, pull up etc. **Power-** It is defined as rate of doing work, it is the ability to perform large amount of work but as first as possible, the less duration activities shows high power output. **Energy-** Capacity to do work is called energy, it is of two types, kinetic (energy due to motion, ex- Cycling, Basketball ect.) and potential energy(it is the energy due to position, ex-Archery, Skiing etc.)

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

*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)

### 25. Justify the Aim and Scope of Sports medicine

*Ans:*- Aim:- a)To provide information to athletes about sports injury, b) to provide the knowledge about the causes of injury, c) to provide the means of treatment and rehabilitation of injury, d) to provide knowledge about the preventive measures of sports injuries (Explain in brief referring to the supplement provided)

**Scope:-** In the following sub-discipline of physical education, the sports medicines are utilized, a) Human anatomy and Physiology, b) preventation of accidents in sports and games, c) spots injury rehabilitation, d) female and sports, e) scientific promotions of games and sports, f) fitness for games and sports (Explain in brief referring to the supplement provided)

### 26. How can a teacher trained potential leader among children

**Ans:**- A good teacher should always be on the lookout for student who displays the qualities of self assertion and intelligence in handling the situation, a) providing suitable channels for the expression and satisfaction of their tendency, b) assigning challenging tasks to the students to draw out the best qualities, c) presenting outstanding models to students to inspire them, d) providing competition to draw out their best and cultivate tolerance and patience like qualities. (Explain these points in brief)

### -XXXXX-

#### PREPARED BY DEPTT. OF PHYSICAL EDUCATION, DAV PUBLIC SCHOOL, CHANDRASEKHARPUR, BHUBANESWAR – 751021, ODISHA

35

(5)

(5)

(2+3=5)

### SOME UNSOLVED QUESTION PAPERS FOR YOU

PHYSICAL EDUCATION Class: XII **SAMPLE QUESTION PAPER-8 – 2016** 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 accidently one girl slipped and fell. Due to pain the girl started crying. As soon as the other 07 girls heard her cry; all of them stopped running, stood for while, turned back, and ran towards her. Suddenly, the girls returned, pacified her, joined their hands together, lifted her, walked together and reached the finishing line. The officials were shocked to see such scene and unity. Quite a many eyes were filled with tears. Based on the passage above, answer the following questions: (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? (5) Q20 Suggest various methods for flexibility training to improve the optimum flexibility. 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)O23 What are the food supplements? Explain the positive & negative effects of food supplements. (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 'single knock-out fixture' for 25 teams where 8 teams are seeded.(5)

### PHYSICAL EDUCATION Class: XII SAMPLE QUESTION PAPER-9 – 2016

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				
5 marks question must be answered 75-100 words.				
1. Explain Angular motion is also known as Rotar	y motion.	1		
2. Define anxiety is a psychological state of an ind	ividual.	1		
3. Justify Physical fitness as a measure to control s	stress.	1		
4. What is menopause?		1		
5. Find out the objective behind AAPHER motor f	ïtness test.	1		
6. Explain Round robin format gives a fair deal to	the players.	1		
7. Justify the motive behind your school towards organizing	ng a mini marathon to observe National sports	s day. 1		
8. Define the term leader.		1		
9. List down the suggestive measure to protect env	vironment related to adventure sports.	1		
10. Write a short note on Kraus-weber Test.		1		
11. Define Anorexia nervosa as a psychological s	tate of mind.	1		
12. Discuss the British and American methods to	decide winner in league tournament	3		
13. Explain Kinetic energy and potential energy in	n relation to Shot put & Archery.	3		
14. Explain the factors which influence the endur	ance ability of sports persons.	3		
15. Find out the role of exercise towards physiolo	gical system of children.	3		
16. Explain in brief various physical deformities 1	elated 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 Bard		

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

### Class: XII

### SAMPLE QUESTION PAPER-10 – 2016

Max Marks: 70

Max Time: 03 Hrs 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.Discus in brief on Problem focused coping strategies. 4. What is body Image? 5.Find out the aim of Rockfort test. 6.Intramural provide support to extramural competition. 7. Explain the demerits of stair case fixture. 8. Explain the methods of distributing byes. 9.Define one aquatic adventure sports programme. 10.Masurement is the quantitative phenomena. Discus. 11.Define the science of Nutrition. 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.Whta 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 promotors 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

- c. Give a suitable title to this story.
- 20.Eplain 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+322. Explain explosive strength and differentiate two types of dynamic muscular contraction. 1+2+2

23. Justify Activity improves the quality of life.

24.Explain in detail methods to measure cardiovascular fitness of a person.

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

1x5

Max Marks: 70

### PHYSICAL EDUCATION

### Class: XII

### SAMPLE QUESTION PAPER-11 – 2016

Max Time: 03 Hrs

🗆 Qı	ues	tion paper consists of 26 questions.	
01	Μ	ark question must be answered in 10-20 words. $\square$ 03 Marks question must be answere	ed in 30-50 words.
05	M	arks question must be answered in 75-100 words.	
1	l.	Suggest any two ways through which women participation in sports can be enhanced 1	
2	2.	Name any four materials required for trekking	1
3	3.	Enlist two objective of intramural	1
4	1.	Find out two sources for calcium and iron	1
5	5.	Define correct sitting posture with example	1
6	5.	Calculate physical fitness index using short formula for a 12 year boy having complete	d Harvard step test
		for 3 mins. and pulse rate of 54 mins for 1-1.5 mins.	1
7	7.	Your grand father feels he has reduced his upper body flexibility and therefore he wa	nts to test himself.
		Which test would you suggest him.	1
8	3.	What is hypertrophy of muscles.	1
9	).	What do you mean by liner movement	1
1	10.	Define self esteem in sports	1
1	11.	Suggest any two isometric exercise for shoulder region	1
1	12.	What safety measures children should be taught while participating in trekking	3
1	13.	Briefly explain function and resource of three fat soluable vitamin	3
1	14.	Briefly explain six physical benefits of exercises to children	3
1	15.	Explain the procedure of conducting any three kraus-weber test items for measuring n	minimum muscular
		strength	3
1	16.	Physical Activity for a longer period brings desirous changes in muscular system. Justi	fy the answer with
		three benefits of exercises	3
1	17.	Differentiate between a liner and angular motion with example	3
1	18.	Coordinative ability enhance the qualitative movements. Explain in context with types	3
1	19.	Value Based	3
		Once upon a time, during an athletic meet in stadium, 8 girls were on starting line i	ready for the race.
		With the sound of mistal all 08 gives started manning. Handly, had they append 10 to	

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

- 1. What values do they teach?
- 2. What quality girls have shown by walking together?
- 3. What was so special about the race?
- 20. Why do women hesitate to participate in sports

21. Justify rock climbing is physically and mentally demanding sports. Mention what are the pre-requisite tools and planning required for this adventures sports. 1+2+2=5

22. Find out balance diet is the need of hour or every sports person and explain the role of carbohydrate and protein as the main fuel for every athlete. 1+2+2=5

23. Draw a single elimination fixture of 22 teams following quarter method where four teams are seeded. 5

- 24. Explain in detail two testing procedure to determine upper body strength and test for agility for sr. citizen. 525. How does physical activity is necessary for aged people and explain physical activity should be based upon gender specific programme.
- 26. Define any six types of bone fracture and find out the preventative methods.

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CHANDRASEKHARPUR, BHUBANESWAR - 751021, ODISHA

### PHYSICAL EDUCATION

### Class: XII

### SAMPLE QUESTION PAPER-12 – 2016

Max Time: 03 Hrs

Max Marks: 70

1

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O1 Mark question must be answered in 10-20 words.
 O3 Marks question must be answered in 30-50 words.
 O5 Marks question must be answered in 75-100 words.
 How can athlete overcome anxiety before match

□ All questions are compulsory

2. Give one example of parabolic path in spots

□ Ouestion paper consists of 26 questions.

- 3. Name the fitness component required for a marathon runner
- 4. Write the formula used for rock port walking test
- 5. What is PNF stretching
- 6. What fitness components an older person lacks if he is not able to perform 6 mins. walk test
- 7. Why do long distance runner include a lot of carbohydrate in their diet
- 8. Penalizing the athletes sometimes act as a motivation. How?
- 9. Enlist any 2 symptoms of food intolerance
- 10. What is radial pulse method of measuring heart rate?
- 11. Why does a cyclist bend inward while riding along a curved path?
- 12. Discuss briefly the women's' participation in sports as discourse
- 13. Draw a neat diagram to show the interrelationship between strength, endurance and speed
- 14. What is the role of physical education in creating a good leader
- 15. How does a heavy mass of a short putter help in gaining better performance
- 16. Explain the motor development in infancy period
- 17. What are preventive steps for female athlete triads
- 18. Explain the procedure of autogenic as technique for anxiety management.
- 19. Value Based

*Ans:* 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-

- c. Why Derek refused medical assistance ?b. What value the father teaches the sporting fraternity?c) What was so special about the race.
- 20. Prepare a single knock out seeding fixture of 29 teams dividing into four quarters.
- 21. Recall the adoptive effects that takes place in our respiratory system after engaging exercise for a longer period of time 5
- 22. What is work, power and energy. State their role in sports with examples.
- 23. Staying healthy and active is in direct proportion to the good or bad posture one adopts. Justify
- 24. Write the administration and procedure of foot up and go test.

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- 25. What should be your competition diet? Discuss the eating pattern before and during the competition 5
- 26. Explain about the formation of committee for organizing the sports events

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