



BK BIRLA CENTRE FOR EDUCATION
SARALA BIRLA GROUP OF SCHOOLS
SENIOR SECONDARY CO-ED DAY CUM BOYS' RESIDENTIAL SCHOOL



PRE BOARD – 2 (Answer Script)

PHYSICAL EDUCATION (048) SET-2

Class : **XII Sci/Com/Hum**

Date : **11/12/2024**

Admission No.:

Duration: **3 Hrs**

Max. Marks: **70**

Roll No.:

General Instructions:

1. The question paper consists of 5 sections and 37 Questions.
2. Section A consists of question 1-18 carrying 1 mark each and is multiple choice questions. All questions are compulsory.
3. Sections B consist of questions 19-24 carrying 2 marks each and are very short answer types and should not exceed 60-90 words. Attempt any 5.
4. Sections C consist of Question 25-30 carrying 3 marks each and are short answer types and should not exceed 100-150 words. Attempt any 5.
5. Sections D consist of Question 31-33 carrying 4 marks each and are case studies. There is internal choice available.
6. Sections E consists of Question 34-37 carrying 5 marks each and are long answer types and should not exceed 200-300 words. Attempt any 3

Section A

1. (b) Controlling
2. (b) 2
3. (d) Phytochemicals
4. (b) Protective or regulatory food
5. (c) Adolescence
6. (a) aggression
7. (c) Apathy
8. (a) Both A and R are true and R is the correct explanation of A.
9. (a) Goal setting
10. (c) Halasana
11. (a) Static Friction
12. (c) A is true but R is false
13. (b) (a) - (iii), (b) - (i), (c) - (ii), (d) - (iv)
14. (a) Water
15. (d) Knock out
16. (c) Elimination tournament
17. (b) 60 cm
18. (d) Vitamin C and B

Section B

19. The heart's ability to deliver blood to working muscles and their ability to use, it is called Cardio respiratory endurance.
20. The advantages are:
 - a. Minimum equipments are required for conducting this test.
 - b. It requires minimal cost.
 - c. It is simple to set up and conduct.
 - d. One of the significance of test and measurement is that athlete is selected on the basis of skill testing and evaluation of measurements.

21. Heat strokes and heat cramps.

22. Benefits of Ardha Matsyendrasana.:

- i. It loses extra fat and makes the body beautiful and strong.
- ii. It makes the liver, spleen and pancreas healthy.

23. i. Don't play, it will make them less feminine.

- ii. Family responsibilities.
- iii. Lower income families have constraints of home making and child rearing.

24. One of the significance of test and measurement is that athlete is selected on the basis of skill testing and evaluation of measurements.

Section C

25. The force acting along two surfaces in contact which oppose the motion of one body over the other is called the force of friction.

It is very important in sports. That is, the larger the area of contact between the surfaces, the greater is the force of friction. When both the surfaces are smooth, the force of friction reduces to almost zero.

Three types of friction are

- i. Static Friction The opposing force that comes into play when one body tends to move over the another surface but the actual motion has not yet started.
- ii. Limiting Friction Limiting friction is the maximum of static force that comes into play when one body is just on the verge of moving over the surface of another body.
- iii. Kinetic Friction Kinetic friction is the opposing force that comes into play when one body is actually moving over the surface of another body.

26. To effectively diagnose, rehabilitate and ultimately prevent subsequent injuries, a sport therapist

- i. Anatomical Factors: These are related to make up of the body. Leg length differences and cause injuries to ankle, hip and back.
- ii. Age related causes As the body ages, it changes. It is less able to produce force, recovers slower and soft tissues lose the ability to stretch. Therefore it is more prone to injury.
- iii. Training related causes Excessive repetitive loading of the tissues is needed for successive adaptation. However without suitable recovery, tissues never have the chance to adapt and can fail.

27. The advantages of knock-out

- tournament are:- There will be an economy of expenditure.
- These are required a minimum number of officials
- Standard of the game improves as every team has to perform at the highest level
- to remain in the competition. These tournaments can be finished in less time

28. Behaviour is always a concern in physical education classes where there's plenty of movement and incidents can happen in rapid succession. Positive Behaviour Interventions or Support (PBIS) is a systematically proven method to prevent negative behaviours and increase healthy interactions.

Behavioural expressions are explained from the beginning with support such as picture scheduler. Then the class material is taught through positive interactions.

29. Advantages:

- i. Develops strength and endurance
- ii. Appropriate form of training for most of the sports

Disadvantages:

- i. Many exercises require specialized equipment - e.g., gym equipment
- ii. Ample space required to set up the circuit exercises & equipment

30. The effects of exercise on the cardiovascular system are

- i. Cardiac output is the amount of blood pumped by the heart in 1 min. This increases directly with increasing exercise intensity.
- ii. The heart rate increases from a resting rate of 72 beats / min to 150 beats / min or even more.
- iii. The stroke volume, meaning the amount of blood pumped into the Aorta with every heartbeat, increases from a resting volume of 70-90 mL to 100-120 mL per beat.

Section D

31.

1. c) Proteins
2. c) Strength
3. c) Proteins
4. b) Iron

32.

1. c) A team that is given a free pass to the next round
2. b) By subtracting the number of teams from the next higher number, which is a power of two
3. a) $N - 1$
4. b) Boarding and Lodging Committee

33.

1. b) **Bhujangasana**
2. b) **Both Diabetes and Hypertension**
3. b) **Insulin**
4. b) **Hernia**

Section – E

34. Procedure: Sit in a comfortable cross-legged position, straighten the spine, and relax the body. Breathe deeply and focus on slow, controlled breaths.

Benefits: Promotes relaxation, reduces stress and anxiety, improves lung capacity, and enhances respiratory function. **Contraindications:** No specific contraindications for Sukhasana.

i. Ardha Matsyendrasana (Half Lord of the Fishes Pose):

Procedure: Sit with legs extended, bend one knee and place the foot outside the opposite thigh. Twist the torso, placing the opposite elbow outside the knee. Repeat on the other side.

Benefits: Stimulates lung function, stretches the chest, improves respiratory capacity, and promotes healthy breathing patterns.

35. Sports Training: - It is a process of sports perfection directed by scientific and pedagogy 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 behaviour are made through measures of content, methods and organization.

INTERVAL TRAINING: This training method is considered as best method for development of endurance. The method is based upon —effort and recovery principle. During interval training recovery period is given to the athlete after each speedy workout. Recovery period can be adjusted according to the efficiency of athlete. The load can be increased by reducing the recovery period or by increasing the workout. It is of two type's slow or extensive interval training method 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, fartlek's 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:

- a. Juggling for 5 to 10 minutes
- b. Brisk walk for 5 min.
- c. End with stretching exercise.
- d. Run at fast steady pace over a distance of 800 m to 1200 m.
- e. Run up the hill
- f. Easy running 40 to 50 m
- g. Run down the hill
- h. Walk of 5 min.
- i. Run at fast pace for one minute
- j. Jog about 1 to 1.5 km.

36.

- a. Address residents formally to show respect. Use "Mr.," "Mrs.," "Ms.," etc., unless you are on more familiar terms with the individual or the resident has expressed a preference for how he or she would like to be addressed.
- b. Be aware that older adults might have difficulty hearing. To address hearing impairments, speak in a clear voice and do not rush what you're saying. Avoid shouting, as it may distort your language and make you more difficult to understand. Face the individual and make eye contact while speaking so he or she can see your mouth movements and watch for visual cues.
- c. Avoid distractions and background noise as much as possible. Interruptions and competing noises (such as music, voices, computers, fans, etc.) can hinder effective communication and comprehension.
- d. Be aware that older adults might have difficulty seeing. To address vision impairments, make sure the resident's living space and common spaces have adequate lighting. Encourage the resident to use his or her eyeglasses, if applicable. If the resident has a severe vision impairment, consider alternative ways to provide information, such as through audio recording.
- e. Don't interrupt or rush residents during communication. Doing so might imply lack of respect for the individual or general disinterest in what the resident is trying to communicate.
- f. Avoid language that implies ageist stereotypes or might be viewed as disrespectful or patronizing. Even though these statements might be unintentional, they can negatively affect your ability to

communicate well with residents. Carefully consider your wording and whether it is appropriate for the individual and the situation.

- g. Acknowledge residents' emotions and respond with empathy and understanding. Older adults face many challenges associated with aging, and they may experience a range of emotions, such as fear, anger, uncertainty, anxiety, apathy, and more.
- h. Acknowledging these emotions and showing compassion, empathy, and understanding can facilitate communication and adherence to care plans.
- i. Avoid medical jargon and technical language. Limited health literacy is a problem in all age groups, including older adults.
- j. Research shows that more than 66 percent of American adults aged 60 or older have marginal or inadequate literacy skills. Using plain language, clear descriptions of medical terms and visual aids can help overcome health literacy barriers.
- k. Additionally, writing down key points and having residents explain their understanding of important information in their own words can improve comprehension.
- l. Consider residents' cultural beliefs and values when communicating. Although it is impossible to understand the fine details

37. Psychological Attributes in Sports: Psychological attributes are multi-dimensional and depend upon the assessment. In assessment, some major psychological attributes have to be assessed like cognitive, social, and emotional. In Psychological assessment, systematic testing procedures should be used to evaluate the abilities, behaviours, and personal qualities of individuals.

There are some psychological attributes explained as follows:

- a. **Self-esteem:** Self-esteem can be defined as how much you appreciate and like yourself regardless of the conditions. If a person has healthy self-esteem it can influence motivation, mental well-being, and overall quality of life. If self-esteem is balanced it is considered good rather than too high or too low.
- b. **Mental Imagery:** Mental imagery refers to the athlete who imagines themselves in an atmosphere and performs a particular activity like sight, hearing, feeling, and smell before, during and after competition. The images should have the athlete performing successfully and feeling performance. Imagery is also known as visualization rehearsal. It means all of your senses should be practiced or rehearses according to your sports in your mind.
- c. **Self-Talk:** Self-talk can be considered as our inner thoughts, consisting of theories we say to ourselves, either in our mind or out loud. Most of us use self-talk in our lives like just before interview or in cricket batsman waiting for their chance to bat and after match self-analysis. This kind of practice of self-talk helps us to regulate our thoughts and emotions. It can help to reduce stress and anxiety in certain situations. Athletes and team also engage in self-talk during training and in playing situations, saying thoughts like, "Keep it up" and "stay confident", "We can do it" "We are a team". There are three broad categories of self-talk - Self-expression, Interpretive, Self-regulatory.
- d. **Goal Setting:** Generally a Goal is defined as objective or target that someone is trying to reach or achieve. A goal should be specific, measurable, attainable, realistic and time based. Goal setting is one of the most effective tools when it comes to providing athletes with a psychological progress. Essentially goal setting is a technique of mental training that can be used to increase an individual's commitment towards achieving a personal goal and this can be divided into short, medium and long term goals.

*****All the Best*****