CBSE QUESTION PAPER SOLUTION – 2022

SUBJECT : PHYSICAL EDUCATION

TERM-II

SECTION-A

1. Asanas can be used as preventive measures because they provide the following physiological benefits, which ultimately help us in avoiding various lifestyle diseases, obesity and cardiovascular diseases.

Benefits of Asanans for Prevention of Diseases

1. Bones and joints become strong
2. Muscles become strong
3. Circulation of blood becomes normal
4. Respiratory organs become efficient
5. Efficiency of digestive system increases
6. Nervous system strengthens
7. Efficiency of excretory system enhances
8. Immune systems is strengthened
9. Glandular activity is stimulated and regulated properly

(Explain any 2 points)

2. **Passive Flexibility:** The ability to do movements with greater distance with external help is called passive flexibility, e.g., stretching exercises with the help of a partner.

Active Flexibility: It is the ability to do movements for a longer distance without external help, e.g., to do a stretch without the help of a partner. It can be divided into two parts:

(a) Static Flexibility

(b) Dynamic Flexibility

3. Extrinsic motivation sometime may kill intrinsic motivation because in extrinsic motivation an athlete initiates and sustains an activity as a result of external pull attraction forces incentive etc. Sooner or later the athlete loses interest and quits sport when the rewards etc. are no longer forthcoming.

(Or any other relevant answer)

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

"A disability is a functional limitation or restriction of individual's ability to perform an activity."

Types of Disability

(1) Cognitive Disability

(2) Intellectual Disability

(3) Physical Disability **(Any two)**

5. **Objectives of First Aid**: the following are the objectives of first aid.
(1) To preserve life
(3) To alleviate pain and suffering
(4) To prevent the condition from worsening
(5) To promote recovery
(6) To procure early medical aid **(Describe any two)**

6. **Types of Coordinative Abilities**
(1) Orientation Ability
(2) Coupling Ability
(3) Reaction Ability
(4) Balance Ability
(5) Rhythm Ability
(6) Adaptation Ability
(7) Differentiation Ability **(Explain Any two)**

7. **These are the Symptoms of ASD**
(1) Feels difficult with communication & interacting with others
(2) Repetitive and different behaviors
(3) Unusual reactions to what they see
(4) Preference for routines and dislike changes

8. **Physiological Factors Determining Endurance**
(1) Aerobic Capacity
(2) Lactic Acid Tolerance
(3) Movement Economy
(4) Muscle Composition **(Explain Any two)**

9. These are the causes of ODD
(1) Biological or genetic factor
(2) Physical factors
(3) Psychological factors
(4) Social factors

SECTION-B

10. In psychology, the term aggression refers to a range of behaviors that can result in both physical and psychological harm to oneself. This type of social interaction centers on harming another individual either physically or mentally. **"**Aggression is a behavior with a goal harming or injuring another being motivated to avoid such treatment**".**

Types of Aggressions in sports: There are the following types of aggression in sports

(1) **Hostile Aggression:** Hostile Aggression is inflicting or causing harm whether it is physical or psychological on someone else. It is sometimes referred as reactive aggression and can be accompanied by anger. In hostile aggression, the main aim is to cause injury to other sportsperson. In simple words, hostile aggression is when the primary aim is to cause physical harm or injury to your opponents.

(2) **Assertive Aggression or Behavior:** Assertive behavior is different types of aggression/ aggressive behavior. This is defined as behavior that involves the use of legitimate physical or verbal force to achieve one's purpose. In assertive aggression or assertive behavior, the intention is to establish dominance rather than to harm the opponent.

(3) **Instrumental Aggression:** Instrumental aggressions displaying aggressive behavior in the pursuit of a non-aggressive goal. It is also known as channeled aggression and is not accompanied by anger. In other words, instrumental aggression is behavior that has the intent to hurt in order to achieve money, praise or victory. In case of instrumental aggression an athlete may intend to injure the opponent, but the most important goal to be achieved by the aggressive act is to win the competition.

(Any two)

11. Disability etiquette means **respectful ways to communicate with and about people with disabilities**. To ensure a disability-inclusive workplace culture, employees need to understand the basics and have the opportunity to learn and refresh their knowledge.

Disability etiquette

(1) Always put the people first i.e., say 'person with disability' rather than 'disabled person'. Always avoid the outdated words like handicapped, retarded, physically challenged or differently abled. For example, refer to 'person who is blind' rather than 'blind person'.

(2) In case of introduction to a person with a disability, it is appropriate to shake hands.

(3) When you meet a person with a visual impairment, always identity yourself and others who may be with you.

(4) Always listen carefully as well as attentively when you are having conversation with a person who has difficulty in speaking. Have patience and wait for the person to finish rather than correcting or speaking for that person. Generally ask short questions that require short answers.

(5) Always introduce yourself to persons who are blind using your name.

(6) If you need to leave a person who is blind, inform him you are leaving and ask him if he needs anything before you leave. **(Any Four)**

12.

Oblique Fracture Transverse Fracture

Management of Oblique Fracture

It depends upon the severity of the crack or break. Anti- inflammatory medication, reduction (Resetting the bone) can also help to some extent.

Management of Transverse Fracture

Transverse Fracture can be treated at home along with rest and medicine. A back brace (called Thoracic Lumbar Sacral Orthosis -TLSO) or abdominal binder may be prescribed to reduce the pain by limiting motion at the fracture site.

13. Benefits of Matsyasana

(1) It is helpful in curing back pain, knee pain and tonsillitis.

(2) It also cures the defects of eyes.

(3) Skin diseases can be cures, if we practice this asana regularly.

(4) This asana helpful in the treatment of diabetes.

(5) It helps in relieving tension in the neck and shoulders.

(6) It improves posture.

(7) It provides relief from respiratory disorders by encouraging deep breathing.

(8) It is the best asana to get relief from asthma.

Contraindications of Matsyasana

(1) Avoid this asana if you have high or low blood pressure.

(2) People suffering from migraine and insomnia should also refrain from performing this asana. The individuals who have neck injury or lower back problems should not practise this asana.

14. (a) Isometric Exercises (Static Muscle Contraction)

In this type of exercises, the work or activity is carried out but the work done is not visible, a group of muscles carry out tension against the other group of muscles. When these exercises are done, there are no significant changes in the length of contracting muscles. As a result there is no external movement at the joint concerned. These exercises need less time and equipment and can be done practically anywhere. Moreover, isometric exercises can prove of great value for the maintenance of strength in case of injury or when other strength exercises cannot be done.

Examples of exercises: - Pressing, pushing the wall, lifting heavy weight, holding the static position etc.

(b) Isotonic Exercises (Dynamic Muscle Contraction)

In this type of muscle contraction the muscle lengthens or shortens. In isotonic exercises, the movement and activity is clearly visible. Movement can be seen directly; muscles tone up and become flexible. Length of the muscles can be increased by Isotonic exercises. Isotonic exercises are of two types:

(a) Concentric exercise **(b)** Eccentric exercises.

When during contraction the length of a muscle decreases it is called concentric contraction. And when length increases it is called eccentric contraction. Because of shortening or lengthening of the muscle/muscles during dynamic contraction there is always a resultant movement at the concerned joint or joints.

Examples of exercises: -Lifting a light weight, Doing exercises with a lightweight, Callisthenic etc.

SECTION-C

15. These are the personality traits according to Big-five theory:

(1) **Openness:** Persons who like to learn new things, new concepts and enjoy new experiences usually remain on the top in openness. Openness includes traits like being imaginative, insightful and having a variety of interests. People who are high in this trait tend to be more adventurous and creative.

(2) **Conscientiousness:** persons who have degree of conscientiousness are reliable and prompt. Such persons remain organized, systematic, laborious and complete in all respects.

(3) **Extroversion:** Extroverts get their energy from interacting with other individuals, whereas introverts get their energy from within themselves. Extroversion includes the traits of being energetic, talkative and assertive.

(4) **Agreeableness:** Such individuals are friendly, cooperative, compatible, kind and gentle. Persons with too agreeableness may be more distant or aloof. They are kind, generous, affectionate and sympathetic.+

(4) **Neuroticism:** Neuroticism is also called emotional stability. This domain or dimension relates to one's emotional stability and the degree of negative emotions. Persons who have high neuroticism usually experience emotional instability and negative emotions. Such individuals remain moody and tense.

16. **2 short term effects of exercise on cardio-respiratory system:**

(1) **Respiratory Rate Increases:** Our body requires more oxygen during exercise, and to meet this increased demand, the respiratory rate (breathing rate) increases. The normal respiration rate for an adult at rest is 12 to 20 breaths per minute. per minute, but during exercises it increases to 40 breaths per minutes.

(2) **Tidal Volume Increases:** The amount of air inhaled and exhaled in one breath is known as tidal volume. Tidal volume increases as a result of exercise to take in more oxygen and remove carbon dioxide from our body.

(3) **Rate of Exchange of Gas Increases:** Regular exercise increases the rate of exchange of gas in lungs. **(Any two)**

2 long term effects of exercise on cardio-respiratory system

(1) **Increased Efficiency of Respiratory Muscles:** Due to regular exercise efficiency of respiratory muscles increases, inhalation and exhalation become fluent. This helps to meet the demand of oxygen.

(2) **Increased Lung volume:** Continuous exercises done for long duration help to increase the capacity and volume of lungs. Vital capacity increases almost 100 % as compared to that of a normal individual.

(3) **Increased Pulmonary Diffusion:** Pulmonary Diffusion refers to the capacity of the lungs to allow oxygen and carbon dioxide to pass in and out of the blood. Regular submaximal exercise training develops the scope of increasing the exchange of gases to oxygen in this process the size of the alveoli also increases.

(4) **Increased Residual Volume:** Residual volume is the volume of air that remains in the lungs after forceful expiration. Regular exercise increases residual volume that helps to exchange the gases in normal limits. **(Any two)**

(Or any other relevant points)

17. Endurance:

Endurance, like strength, is a conditional ability. It is primarily determined by energy liberation processes. It is the ability of a person to withstand fatigue or the ability of the body to withstand (tolerate) the stresses of prolonged activity. **Harre**(1986) defines endurance as the ability to resist fatigue. "Endurance is the ability to do sports movements, with the desired quality and speed, under conditions of fatigue." It is usually measured by the number of repetitions.

Methods of endurance development: - For developing endurance, the following methods can be employed**:**

(1) Continuous Methods: In this method an exercise is done for long time without any break or pause. Because of the long duration of work the intensity is low. Cross-country race is the best example of continuous methods. The continuous method has three variations which are explained below:

(a) Slow Continuous Meth

(b) Fast Continuous Method

(c) Variable Pace Method

(2) Fartlek Training Method:

Fartlek is a Swedish word meaning 'speed play'. This method was introduced by **Gosta Holmer**. This is an effective method for the development of endurance. It is a variation of variable pace methods. In Fartlek the change of pace or speed is not pre-planned. It is a type of cross- country running, usually conducted over a hilly terrain. The sportsman changes the speed on his own during the activity according to the terrain, surrounding and his feelings. This method requires more self-discipline in order to be effective. The heart rate should be between 140-180 beats/minute in trained persons. The volume and duration of exercises should be about 15 minutes to 1 hour.

(3) Interval Training Method

This method was first introduced by Woldemar and Greshler and again modified by Reindell. It is the most versatile method for improving endurance. In this method, the total work to be performed is divided into small periods. These periods are performed in intervals with certain speed and rest. Incomplete recovery is given in intervals. In other words, the total work is performed in intervals. The exercise is done at relatively higher intensity with intervals of incomplete recovery. It is of two types:

(a) Slow/Extensive interval method

(b) Fast/Intensive interval method**.**

18. **Obesity** is that condition of the body in which the amount of fat increases to extreme levels. In other words, obesity can be defined as 'the condition when an individual weight 20 percent more than the ideal weight'. An adult with a BMI more than or equal to 30 than the ideal BMI is usually considered to be obese.


Ardhmatseyendrasana


Trikonasana


Vajrasana


Hastasana

(Note: Sketch diagram you can also draw)

Procedure of Vajrasana: it is a meditative asana. Kneel down on the ground with your knees, ankles and toes touching the ground. Your toes should be stretched backwards. Now place your palms of both your hands on the knees. The upper body should be straight. At this time, the breathing should be deep, even and slow. Then expend your chest and pull your abdominal portion inwards.

Procedure Trikonasana: first of all stand with your legs apart. Then raise the arms sideways up to the shoulder level. Bend the trunk sideways and raise the right hand upward. Touch the ground with left hand behind left foot. After some time, do the same asana with opposite arm in the same way.

(Any two asana procedure)