

## CBSE SAMPLE QUESTION PAPER-1

PHYSICAL EDUCATION (048)

SESSION 2021-22(CLASS XII)

TERM II

### SOLUTIONS

- Q.1 (i) Reward  
 (ii) Praise  
 (iii) Punishment  
 (iv) Cash prize  
 (v) Certificates and trophies

Q.2 **Obsessive Compulsive Disorder (OCD)**

Obsessive compulsive disorder is a mental health disorder that affects people of all ages and walks of life. It is a type of mental disorder that causes repeated unwanted thoughts. To get rid of the unwanted thoughts, he/she performs the same task/activity again and again.

**Oppositional Defiant Disorder (ODD)**

Oppositional defiant disorder is a set or group of behavioral disorders called disruptive behavior disorders. It is called by this name because children who have these disorders always tend to disrupt those around them. It is one of the most common mental health disorders found in children and adolescents.

Q.3 Following strategies should be taken into consideration to make physical activities accessible for the children with special needs:

1. Medical check-up
2. Physical activities must be based on interests of children
3. Equipment related to physical activities should be according to the needs of children
4. Specific environment should be provided
5. A variety of different instructional strategies should be used
6. Rules should be modified according to the needs of children with disabilities
7. Children's previous experience must be taken into consideration

Q.4 1. Plank



2. Dumbbell Curl



Q.5 Stroke volume is the amount of blood ejected per beat from the left ventricle. It is measured in ml/beat. Stroke volume increases proportionally with exercise intensity. In untrained individuals the stroke volume at rest remains at 50 to 70 ml/beat.

Cardiac output is the amount of blood pumped by the heart in one minute. It is measured in litre/minute. Cardiac output is a product of stroke volume and heart rate.

- Q.6
1. **Changes in shape and size of muscles:** Through regular exercise, the shape and size of muscle is changed. In fact, cells of muscles are enlarged which change the shape and size of muscle.
  2. **Formation of more capillaries:** When exercises are done, the color of muscles is changed, because a number of new capillaries are formed for a better efficiency of blood circulation.
  3. **Muscles remain in tone position:** When exercises are done on regular basis then our muscles remain in toned position. Indeed, muscles remain under some degree of contraction. Muscle become firm and maintains a slight, steady pull on the attachments.
  4. **Control extra fats:** Regular exercise controls the extra fat of body. Exercises burn the calories which are taken in the form of fat.
  5. **Increases food storage:** The food storage capacity increases when regular exercises are done. This storage of food can be utilized immediately when it is needed.
  6. **Non-functioning fibres become active:** When we do not any strenuous work, all the muscle fibres of our body do not perform any work. In fact, these fibres do not need to be active. But when we perform exercise regularly, the non-functioning fibres also begin to be active. Consequently, the strength of the body increases, because the total contractile power of the muscles fibres increases. (Explain any two)

Q.7 **Sign and symptoms of Sprain**

1. Acute pain in the spot injured.
2. Swelling on the spot.
3. Softness at the spot and pain on touching. (Any two)

Q.8 Fartlek is a Swedish word meaning 'speed play'. 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.

This method was introduced by Gosta Holmer.

Q.9 **Benefits:**

1. It takes care of gas trouble.
2. It prevents the early ossification of bones.
3. It is a good remedy for constipation.
4. It helps to overcome several menstrual disorders.
5. It gives relief in sciatica, backache and asthma.
6. It reduces obesity.
7. It is helpful in treating abdominal diseases.
8. It is helpful in curing skin diseases.
9. Vertebra becomes flexible and healthy. (Any two)

Q.10 **Carl G. Jung's** classified personality on the basis of sociability character as introverts, extroverts and ambiverts. These are described below:

1. **Introverts:** these are the persons who have characteristics such as shyness, social withdrawal and tendency to talk less. Owing to these characteristics such persons seem to be self-centered, unable to adjust easily in society or social situations. They are very sensible, rigid in ideas and future oriented.
2. **Extroverts:** Extroverts have a tendency to be friendly, outgoing, talkative and social in nature. They usually prefer social contacts. They are generous, supportive and courageous. They may be called happy and lucky persons. They show interest in present reality than future. They do not have hesitation. They express their feelings openly. They take decision quickly and act upon quickly. They are not affected easily by difficulties and troubles.
3. **Ambiverts:** They are only few persons who are pure introverts and pure extroverts the remaining majority of persons possess both the qualities and traits of introverts and extroverts such persons are called as ambiverts.

### Q.11 Flexibility

Flexibility is the range of movements of joints. In other words, it means the range of motion available in a joint. Stretch ability and elasticity are the special qualities of the muscles and ligaments by which these can be stretched and can regain their normal length without any adverse effect on the concerned tissues. So flexibility can be defined as the ability to execute movements with greater amplitude or range.

#### Types of Flexibility:

- (a) **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.
- (b) **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:
  - (i) **Static Flexibility:** It is usually required by a sportsperson when he remains in static position, e.g., in diving, sitting, lying and starting position in various sports.
  - (ii) **Dynamic Flexibility:** Dynamic flexibility is needed for doing movements with greater distance when an individual is in motion.

### Q.12 Vajrasana

**Procedure:** 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 expand your chest and pull your abdominal portion inwards.



**Benefits:**

1. It helps in reducing hip fat.
2. It enhances memory power.
3. It cures the problems related to menstruation.
4. It cures mental stress.
5. It strengthens the pelvic muscles.
6. It removes postural defects.
7. It prevents hernia and gives relief from piles.
8. It is the best meditation asana for people suffering from sciatica and sacral infections.
9. It is helpful in curing dysentery, back pain and chest diseases and also helpful for concentration.
10. It gives relief from constipation, acidity and increases digestive process.

**Contraindications:**

1. A person suffering from joint pain should not perform Vajrasana.
2. The individuals who have and spinal column problem should not perform Vajrasana.
3. The individuals who have some difficulty in movement should practice Vajrasana with a lot of care.

**Q.13 Meaning of First Aid:** First aid is the first help which is given to the wounded or accident victim before the arrival of the doctor. In other words, "It is an immediate and temporary care given to a victim of an accident or sudden illness before the services of a physician is obtained".

**Objectives of First Aid: the following are the objectives of first aid.**

1. To preserve life
2. To alleviate pain and suffering
3. To prevent the condition from worsening
4. To promote recovery
5. To procure early medical aid

(Explain any two point)

**Q.14 Types of Coordinative Abilities:**

1. **Orientation Ability:** It is the ability to determine the position of the body and its parts in time and space in relation to gravity, moving objects like ball, opponent, partner and playing field etc. This ability depends on functional capacity of sensory organs like eyes and kinesthetic sense organs etc.
2. **Coupling Ability:** It is the ability to combine the movements of different body parts for performing perfect sports movements. For example in boxing, the movements of hands, head, trunk and feet are essential to couple to achieve a certain goal.

3. **Reaction Ability:** It is the ability to react immediately or quickly and effectively to a signal. It is of two types:
  - (i) **Simple Reaction Ability:** It is the ability to react immediately or quickly in already determined manner to a well-known signal. E.g., the reaction of a runner in the start of sprint races is already known to the runner.
  - (ii) **Complex Reaction Ability:** It is ability to react immediately or quickly and accurately to undermined or unexpected signals. E.g. facing a ball in cricket by a batsman.
4. **Balance Ability:** It is the ability to maintain balance during the complete body movements and to regain balance quickly after the balance disturbing movements. It can also be defined as the ability to control the body's position, either in stationary position or while moving. This type of ability is requiring in most of the games and sports.
5. **Rhythm Ability:** It is the ability to observe or perceive the rhythm of a movement and to do the movement with the required rhythm. In gymnastics or figure skating, the sports person has to observe an external rhythm, given in the form of music and to express it in his movements.
6. **Adaptation Ability:** It is the ability to adjust or change the movement effectively on the basis of changes or anticipated changes in the situation. The change in situation can be expected one or can be sudden or unexpected one.
7. **Differentiation Ability:** It is the ability to achieve a high degree of accuracy and economy of separate body movements and movement phases in a motor action. The high level of this ability depends on movement experience and the degree of mastery over motor action.

(Explain any three)

### Q.15 Big Five Personality Theory

The big five factors of personality are the five main domains which define human personality and account for individual differences. These five domains or dimensions of personality are considered to be the fundamental traits that make up an individual's overall personality. The big five traits of personality are described below:

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.
5. **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.

### Q.16 Physiological Factors Determining Flexibility

The range of movement possible at joint i.e., flexibility depends upon a number of factors. There are some of the factors which are not trainable but some factors are trainable up to some extent. The various factors which determine the flexibility are described below.

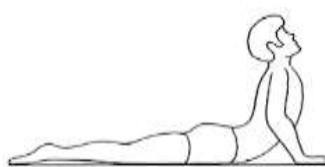
1. **Muscle Strength:** The muscles should have a maximum level of strength to make the movement possible especially against gravity or external forces. Weak muscles can become a limiting factor for achieving the higher range of movement. Muscle strength is highly trainable therefore it can enhance the flexibility.
2. **Joint Structure:** There are several different types of joints in human body. Some of the joints intrinsically have a greater range of motion than others. For example, the ball and socket joint of the shoulder has the greatest range of motion in comparison to the knee joint.
3. **Age and Gender:** It is a well-known fact that flexibility decreases with the advancement of age. However, it is trainable. It can be enhanced with the help of training as strength and endurance are enhanced. Gender also determines the flexibility. Females tend to be more flexible than males.
4. **Stretchability of Muscles:** The stretchability of the muscles is also a factor in limiting the range of movements. For making any movement at a joint the muscle must contract to execute the movement. If muscles are not regularly stretched, they tend to get shorter and finally lead to restrict the range of movement possible at a joint. The stretchability of muscles is trainable up to some extent. Therefore, it can be said that stretchability of muscles can determine the flexibility up to some extent.
5. **Internal Environment:** Internal environment of the athlete influences the flexibility. For example 10 minutes in a warm bath increases body temperature and flexibility whereas, 10 minutes stay outside in  $10^{\circ}\text{C}$  reduces body temperature and flexibility.
6. **Previous Injury:** Injuries to connective tissues and muscles can lead to thickening or fibrosing on the affected area. Fibrous tissues are less elastic and can lead to limb shortening and ultimately lead to reduced flexibility. (Explain any four)

### Q.17 Asana which cure Asthma are:

Bhujangasana, Paschimottanasana, Sukhasana, Chakrasana, Gomukhasana, Parvatasana and Matsyasana

#### Bhujangasana

**Procedure:** in this asana, the shape of the body remains like a snake that is why it is called bhujangasana. In order to perform this asana, lie down on the belly on the ground. Keep your hands near the shoulders. Keep your legs close together. Now, straighten up your arms slowly, raise the chest. Your head should turn backwards. Keep this position for some time. Then get back to the former position. For good result, perform this asana 3 to 5 times.



Bhujangasana

**Benefits:**

1. It alleviates obesity.
2. It provides strength and agility.
3. It cures the disorders of urinary bladder.
4. It cures the diseases of liver.
5. It improves blood circulation.
6. It makes the vertebral column flexible and thin.
7. It cures gas disorders, constipation and indigestion.
8. It strengthens the muscles of hands.

**Q.18 Soft tissue Injuries (closed athletic injury):** - It is an injury to the body without any interruption to the skin. It may result, bleeding between the tissues, which may causes distraction of various under laying structure. The under laying structure are muscles; tendon, ligament, bones, blood vessels and nerves can also damaged.

There are different types of soft tissues injury

**1. Contusion (Bruise):**

Contusion is a muscles injury. It is a common athletic injury and it can due to direct pressure to any part of the body. A direct hit with any sports equipment or a direct blow anywhere on the surface of the body, causing bleeding from ruptured small capillaries below the skin, without any breaking of skin, is called contusion.

**Treatment or management of Contusion**

1. The part of the body, which receives the blow, should be treated by RICE or PRICE therapy.  
P – Protection      R- Rest      C- Compression      I- Ice
2. All the acute movement, ICE therapy should be applied twice in a day and after that heat therapy should be applied. Heat therapy done by infrared and ultra sound.
3. If swelling still occurs, the doctor should be consulted.

**2. Strain**

Commonly it is known as muscle pull. It is the result of stress or force applied on tissues. It can occur anywhere at the muscles or tendons.

**Treatment or management**

1. Immediately RICE should be given.
2. Non steroid anti-inflammatory medicine, we can use to remove the pain
3. After 48 hours heat therapy may be started. It speeds up the healing process. After this, rest is given.
4. The muscles will lose their strength and flexibility so rehabilitation should be done. Activity started gradually.

### 3. Sprain

This is an injury of the ligaments. It occurs due to over stretching or tearing of ligaments.

#### Treatment or management

1. The injured part should be kept in a comfortable position. Do not move the injured part. Show to doctor and follow medical advice.
2. In case of mild sprain, Application of ice compression should be given 3 to 4 times in a day for three days and cover the affected part by elastic crepe bandage after treatment.
3. After three days, heat therapy should be given. Application of heat is also necessary for the rehabilitation purpose. It is essential to bring out the products of inflammation, so infrared rays or short wave diatherapy should be used.

### 4. Abrasion

It is a skin injury. It is a superficial (not deep) injury of skin or mucous membranes due to rubbing or scraping. It is normally a minor injury but can be serious if some foreign matter is struck in it.

#### Treatment or management of Abrasion

1. Clean the area with water and soap.
2. Take immediate medical assistance if some foreign material is struck deeply in the wound. Foreign material should be removed.
3. Clean and apply antibiotic ointment.
4. Cover the wound lightly during daytime. Uncover it at night.

### 5. Laceration

Laceration is an injury to living tissue (especially an injury involving a cut or break in the skin). It is the cut over the skin caused due to severe impact of an object or due to its sharp edge.

#### Treatment or management of Laceration

1. First of all control bleeding. To stop bleeding put pressure directly on the injured area.
2. Once bleeding has stopped, wash the injured area with warm water and mild soap.
3. Use antiseptic ointment.
4. If the affected person requires stitches go to the doctor.

### 6. Incision

It is a surgical cut made in skin or flesh. Sometimes it may occur due to sharp edged objects of sports equipments or spikes etc. Sometimes, arteries or veins may be cut. Blood usually comes out freely from incision.

#### Treatment or management of Incision

If the wound is not deep, let the blood come out. In this process, germs also come out with the blood. Such wounds should be cleaned with iodine, tincture or spirit. Then after placing a piece of cotton on the wound, a bandage should be applied. In such process, dirt should not enter into the wound. In case of excessive bleeding, the bandage should be kept tight. If the wound is too deep, a doctor should be consulted immediately.