Class 12
शारीरिक शिक्षा
Physical Education
अंकन योजना
Marking Scheme

(OBJECTIVE TYPE QUESTIONS) 1 MARK EACH
वस्तुनिष्ट प्रश्न (1 -1 अंक)

प्रश्न - 1 काइफोसिस किस प्रकार की विकृति है?
Question1. Which type of deformity is "Kyphosis"? [1]

Answer:

Kyphosis is an excessive outward curvature of the spine, causing hunching of the back. In other words, kyphosis is a deformity of the spine of the upper back causing an exaggerated outward curve.

उत्तर- रीढ़ की हड्डी का एक तरफ झुकना काइफोसिस कहलाता है इसमे पीठ एक तरफ झुक जाती है यह पीठ के ऊपरी भाग में रीढ़ की विकृति है जो भारी वक्र का कारण बनती है

प्रश्न - 2 आप सहनक्षमता विकसित करने के कौन -कौन से तरीके सुझाएंगे ?
Question3-Which methods will you suggest to develop endurance? [1]
Answer: Methods to develop endurance are :

1. Continuous method,
2. Interval Method,
3. Fartlek Method.

उत्तर -1 निरंतर पर्शिक्षण विधि
2 अंतराल पर्शिक्षण विधि
3 फ़ार्टलेक पर्शिक्षण विधि

(अति लघु उत्तरीय प्रश्न (2 -2 अंक)
(VERY SHORT ANSWER QUESTIONS) 2 MARKS EACH

प्रश्न -1 एक्सट्राम्युरल गतिविधियों के दो उद्देश्य बताइए

Question 1-**Give two objectives of Extramural activities.**

Answer: Two Objectives of Extramural Activities are:

1. To provide experience to students.
2. To provide the knowledge of new rules and advanced techniques.

उत्तर - एक्सट्राम्युरल गतिविधियों के दो उद्देश्य इस प्रकार हैं -

(1) छात्रों को अनुभव प्रदान करना

(2) नए नियमों तथा उन्नत तकनीकों का ज्ञान प्रदान करना

प्रश्न-2 गामक विकासक्या है ?

Question2: What is Motor Development? [2]

उत्तर- गामक विकास का अर्थ बच्चे की हड्डियों , मांसपेशियों, और घूमने फिरने और अपने पर्यावरण का उपयोग करने की क्षमता के विकास से है गामक विकास को दो भागों में विभाजित किया जा सकता है (1) स्थूल गामक विकास (2) सूक्षम गामक विकास

(1) स्थूल गामक विकास- स्थूल गामक विकास में बच्चे के शरीर में बड़ी माशपेशियों का विकास शामिल होता है , ये मासपेशियां हमें अन्य गतिविधियों के अलावा बैठने ,खड़े होने चलने और दौड़ने की अनुमति देता है

(2) सूक्षम गामक विकास -सूक्षम गामक विकास में शरीर की छोटी -मोटी मासपेशियां शामिल हैं , जैसे हाथ की उँगलियों की गतिविधियाँ

Answer: Motor development refers to the development of a child's bones, muscles and ability to move around and use his or her environment. Motor development can be divided into two sections: gross motor development and fine motor development.

1. Gross motor development involves the development of the large muscles in the child's body. These muscles allow us to sit, stand, walk and run, among other activities.

2. Fine motor development involves the small muscles of the body, especially in the hand.

[1+1]

प्रश्न -2 नरम उत्तक चोटों से आपकाक्याअभिप्राय है?

Question2-What do you mean by soft tissue injuries?[2]

Answer: Soft-tissue injury includes damage of muscles, ligaments, and tendons. The result can be pain, swelling, bruising, and damage. Soft-tissue injuries are classified as the following:

Contusions, Sprains, Tendonitis, Bursitis, Stress injuries, Strains.

उत्तर - नरम उत्तक चोटों में मांसपेशियों ,स्नायुबंधन और टंडन की क्षति शामिल है । इसका परिणाम दर्द, सूजन , चोट और क्षति हो सकता है नरम उत्तक चोटों को इस प्रकार वर्गीकृत किया गया है:-

गुम चोट ,खरोंच, मोच , खिंचाव , तनाव आदि

[1+1]

SHORT ANSWER QUESTIONS (3 MARKS EACH)

लघु उत्तरीय प्रश्न **(3 -3** अंक)

प्रश्न-1 भुजंगासन की विधि और लाभ बताइये

Question3.Explain about the procedure and advantages of 'Bhujangasana'.

उत्तर-1 भुजंगासन में भुजंग का अर्थ है साँप और आसन का अर्थ है योग मुद्रा / यह आसन सामने का धड़ और रीढ़ की हड्डी को खींचने वाला योग व्यायाम है /भुजंगासन अंतिम चरण है जब सांप अपना फन उठाके अपने शिकार पर हमला करने के लिए त्यार होता है इसलिए इसे अंग्रेजी में कोबरा पोज़ भी कहा जाता है /

प्रक्रिया:---

1 पैरों को एक साथ रखकर पेट के बल लेट जाएं / 2 . हथेलियां कंधे के बगल में रखें और शिर जमीन पर टिकाएं /

3 स्वास भरते हुए शिर को नाभि तक उठाएं/

4. लगातार सांस लेते हुए 10 से 60 सेकंड तक इसी स्थिति में बने रहें/

5 . गहरी साँस छोड़ते हुए धीरे-धीरे मूल स्थिति में आ जाएं /

लाभ:-

1 यह रीढ़ की हड्डी को मजबूत बनाने और पीठ दर्द से राहत दिलाने में मदद करता है/

2 यह किडनी की कार्यकुशलता को बेहतर बनाने में मदद करता है/

3 यह पाचन के लिए अच्छा है इससे पेट अग्नाश्य, यकृत और पित्ताशय की मालिस होती है /

4. यह पाचन सम्बन्धी समस्याएं जैसे कब्ज अपच आदि के इलाज म में मदद करता है/

5. यह स्लिप डिस्क में लाभदायक है /

6 . यह थाइराइड ग्रंथि को नियंत्रित करता है जिससे स्वास्थ्य को ठीक रखने में मदद मिलती है /

7 यह फेफड़ों की अक्समता में सुधर करता है तथा कुबड़ा मुद्रा छाती को फ़ैलाने में मदद करता है /

Answer:

The meaning of Bhujang is cobra and asana means yoga pose. Bhujangasana is the stretching yoga exercise of the front torso and the spine. Bhujangasana is the final stage when the cobra is ready to attack its prey by raising its hood; hence the name is cobra pose.

Procedure :

1. Lie down on the stomach by keeping legs together.

2. Put palms besides shoulder and the head should rest on the ground.
3. With inhaling raise head up to navel region and try to see the roof.
4. Maintain the position till 10 to 60 seconds with steadily inhaling and exhaling.
5. Come to the original position slowly with deep exhalation.

Advantages:

1. It helps to strengthen up the spine and relieves backache.
2. Helps in improving the efficiency of the kidneys.
3. It is good for digestion. It gives a good massage to the organs of abdominal region such as stomach, pancreas, liver and gallbladder.
4. It is helpful in treating of many digestion relation conditions such as constipation, indigestion, etc.
5. It is beneficial against slipped disc or sciatica.
6. It regulates thyroid gland thus helps to maintain good health.
7. It improves lung capacity: The cobra pose helps to expand the chest thus beneficial for breathing related problems.

[1.5+1.5]

Question 2. Explain 'Flat Foot' and 'also suggest corrective measures for this postural deformities. [3]

Answer:

Flat foot is one physical deformity on which the medial longitudinal and transverse arches of foot are depressed and medial border of foot comes in contact with ground. In other words, in this deformity the arch of the foot collapses, with the entire sole of the foot coming into complete or near-complete contact with the ground. Flat foot deformity can be diagnosed with a very simple test called as 'Wet Foot test'. It creates problem in walking and running.'

Causes of knock knee are

1. Birth defect.
2. Overweight or obesity.
3. Deficiency of the vitamin D, calcium, etc. during childhood.

Following exercises can be performed as a remedy for Flat Foot deformity:

1. Walking on heels.
2. Walking on inner and outer side of feet.
3. Walking on toes.
4. To perform up and down the heels.
5. Jumping on toes for some time.
6. To skip on rope.
7. To perform the yogic asana.
8. Surgery
9. Standing on toes
10. Picking small stone with toes and placing it a little far
11. Perform yogic asana like Tadasana (Tree posture), Vajrasana and Utkatasana (Chair posture).

[1+2]

[1.5+1.5]

(Long Answer Questions) 5 Marks Each

Question 1. What do you understand by fracture? How can fracture be classified? Explain (5)

Answer:
A bone fracture is a medical condition where the continuity of the bone is broken. A break in the bone that does not damage surrounding tissue or tear through the skin is known as a closed fracture. On the other hand, one that damages surrounding skin and penetrates the skin is known as a compound fracture or an open fracture.
Classification of Fracture:

1. Comminuted fracture: The bone is shattered into many pieces.
2. Compression (crush) fracture : Generally occurs in the spongy bone in the spine. For example, the front portion of a vertebra in the spine may collapse due to osteoporosis.

3. Greenstick fracture : The bone partly fractures on one side, but does not break completely because the rest of the bone can bend. This is more common among children, whose bones are softer and more elastic.[5]
4. Hairline fracture : A partial fracture of the bone. Sometimes this type of fracture is harder to detect with routine X-rays.
5. Impacted fracture : When the bone is fractured, one fragment of bone goes into another.
6. Longitudinal fracture : The break is along the length of the bone.
7. Oblique fracture : A fracture that is diagonal to a bone's long axis.
8. Spiral fracture : A fracture where at least one part of the bone has been twisted.
9. Stress fracture: More common among athletes. A bone breaks because of repeated stresses and strains.
10. Transverse fracture: A straight break right across a bone.
11. Complicated fracture: Structures surrounding the fracture are injured.

[1.5+3.5]

Question 2. Write in detail about strength improving methods isometric, Isotonic and Isokinetic

Answer:

(i) Isometric:

They are exercises in which muscular tension is built without any visible movement of muscle being used. Contraction during such an exercise is called isometric contraction. Work done during isometric exercise is zero. Isometric exercise is practiced by pushing or pulling an immovable object like a wall or bar anchored to the floor. Isometric exercise increases muscle tension significantly but fails to change the length of the muscles. Today, it is primarily used for rehabilitation purposes.

Examples:

1. Balancing on one foot.

2. Pressing against the wall.
3. Standing with heavy load on head.
4. Maintaining a sitting posture without a chair.
5. Holding a weight at arm's length.
6. Attempting to lift an immoveable object. Characteristic of isometric exercise

- The amount of heat generated and tension developed is higher than that of isotonic.
- Increased muscular tension leads to tremor in muscles.

(ii) Isotonic:
Exercise where we can see movement of an object on application of force is called Isotonic exercise and contraction of the muscle during such an exercise is called isotonic contraction. Isotonic exercises are carried out against a fixed resistance. As each muscle moves through its complete range, isotonic contraction creates tension with maximum effort at the beginning and end of each exercise. Two types of muscular contraction take place while performing Isotonic exercise they are concentric contraction in which length of the muscle decreases from the normal size and eccentric contraction in which length of the muscle increases from the normal size.
Examples :

Light rhythmic exercise	Running downhill	Sit-ups and push up	Lifting free weights, like dumbbells and barbells
Hammer throw	Triple Jump		Landing on the ground after a jump

(iii) Isokinetic:

They are exercises in which speed remains same throughout the range of movement. It can be also called as a combination of isometric and isotonic contraction. Isokinetic exercise uses a machine that controls the speed of contraction within the range of motion. Cybex and Biodex machines provide this kind of workout, but these machines are generally used by physical therapists and not readily available to most people. Exercise which can be found similar to isokinetic exercise in sports activity are:

1. Ice skating
2. Chin ups
3. Rope climbing
4. While Rowing
5. While Swimming

[1.5+1.5+1.5]

(Full marks may be awarded if you feel satisfied with the overall content)

Question3. What is league tournament? Draw a fixture of nine (9) teams on the basis of league (cyclic method). [5]

Answer:

In a league tournament, each team competes with every other team participating in the tournament. Winners are decided on the basis of the points acquired after all the competitions. For each win a team may be awarded 2 points, for draw 1 point and for a loss no point is awarded. Formulae to find the number of matches in a league tournament = n (n – 1)/2, where n = number of teams participating in the tournament. The number of matches in a league tournament of 9 teams = 9 (9 -1)/2 = 36 matches. In a single league tournament, every team competes with every other team participating in the tournament once. In a double league tournament, every team competes with every other team participating in the tournament twice.

:

League Fixture for Nine Team Using Cyclic Method

1 Round	2 Round	3 Round	4 Round	5 Round	6 Round	7 Round	8 Round	9 Round
9 Vs Bye	8 Vs Bye	7 Vs Bye	6 Vs Bye	5 Vs Bye	4 Vs Bye	3 Vs Bye	2 Vs Bye	1 Vs Bye
8 Vs 1	7 Vs 9	6 Vs 8	5 Vs 7	4 Vs 6	3 Vs 5	2 Vs 4	1 Vs 3	9 Vs 2
7 Vs 2	6 Vs 1	5 Vs 9	4 Vs 8	3 Vs 7	2 Vs 6	1 Vs 5	9 Vs 4	8 Vs 3
6 Vs 3	5 Vs 2	4 Vs 1	3 Vs 9	2 Vs 8	1 Vs 7	9 Vs 6	8 Vs 5	7 Vs 4
5 Vs 4	4 Vs 3	3 Vs 2	2 Vs 1	1 Vs 9	9 Vs 8	8 Vs 7	7 Vs 6	6 Vs 5

Number of Matches = N(N-1)/2 = 9(9-1)/2= 36
N = Number of teams

If there are 9 teams maximum points which can be scored by a team are 18 points (9 × 2) and the team which has secured 10 points will have a percentage score of (10/18) 100 is equal to 55 percentage. The team which has higher percentage will be considered winner.

[2.5+2.5]