

CBSE Class 12 Physical Education
Sample Paper 01 (2020-21)

Maximum Marks: 70

Time Allowed: 3 hours

General Instructions:

- i. The question paper consists of 30 questions and all are compulsory.
- ii. Question 1-12 carries 01 mark each and are Multiple Choice Questions.
- iii. Questions 13-16 carry 02 marks each and shall not exceed 40-60 words.
- iv. Questions 17-26 carry 03 marks each and shall not exceed 80 -100 words.
- v. Questions 27 - 30 carry 05 marks each and shall not exceed 150-200 words.

Section A

1. Name the type of tournament in which the defeated team gets eliminated and does not have another chance to play.
 - a. Bye
 - b. League
 - c. Fixture
 - d. Knockout

OR

To calculate Total No. of matches in a single league tournament

- a. $\left(\frac{N^2-1}{2}\right)$
- b. $\frac{N(N-1)}{2}$

c. $(N - 1)^2$

d. $(N^2 - 1)$

2. Which food item has carbohydrates and fats

a. Tomato and Almond

b. Bread and butter

c. Rice and Pules

d. Potato and Tomato

3. Blood pressure is the force of blood in the arteries. When this pressure becomes abnormally high then it is called _____.

a. Heart Attack

b. Blood sugar

c. Hypertension

d. Cardiac arrest

OR

According to Asthanagyog Asana lies in what place -

a. Second

b. Third

c. First

d. Fifth

4. SPD's expended form is

a. Sensory Processing Disorder

- b. Sensory processing department
 - c. Special police department
 - d. Special processing Disorder
5. Which development is motor development
- a. Sense Organs
 - b. Postural deformity
 - c. Disorder development
 - d. Bones & muscles
6. Rikli and Jones senior citizen test was developed in
- a. 2000
 - b. 2002
 - c. 2001
 - d. 1990
7. The volume of blood flow to muscle tissues increases the most during _____.
- a. Reading
 - b. Eating
 - c. Exercise
 - d. Walking

OR

The damage to muscles, ligaments and tendons is called _____.

- a. Physical Injury
- b. Fracture

- c. Soft Tissue Injury
 - d. Bone Injury
8. Our _____ are located on the back of our leg, below our knee.
- a. calf muscles
 - b. Ankle muscles
 - c. Shoulder muscles
 - d. Knee muscles
9. The word personality is derived from the Latin word -
- a. Endomorphy
 - b. Perjona
 - c. Persona
 - d. Person
10. The ballistic method is related to
- a. Strength development
 - b. Coordination development
 - c. Speed development
 - d. Flexibility development
11. Given below are the two statements labeled Assertion (A) and Reason (R).
- A. Assertion (A): In ancient times Indian women had faced the negative attitude of society towards sports participation.
- B. Reason (R): We had a male dominating society.
- a. Assertion and reason both are correct statements and reason is the correct explanation for the assertion.
 - b. Assertion and reason both are correct statements but the reason is not the correct explanation for the assertion.

c. The assertion is a correct statement but the reason is the wrong statement.

d. The assertion is the wrong statement but the reason is a correct statement.

12. If the BMI of a person is 28. It is considered as



a. Obese

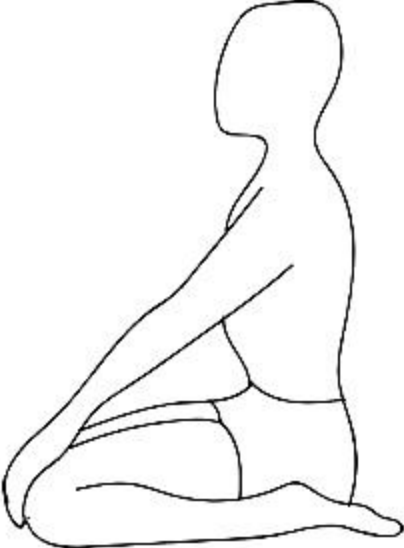

b. Normal

c. Underweight



d. Overweight



13. Identify the below-given Asanas and write their names.

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14. Identify the below-given Postural Deformities and write their names.

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15. Why the word 'differently-abled' is used in place of disabled nowadays?
16. What do you mean by Projectile & Power?

OR

What is Kinesiology?

17. Your grandmother is an active lady. She says she has much better fitness as compared with you because she takes a balanced diet, does regular exercise and often sits in the sunshine.

Based on this case, answer the following questions.

- i. What is included in a balanced diet?
 - a. Carbohydrates
 - b. Vitamins
 - c. Proteins
 - d. All of these
- ii. Which is not a direct benefit of a balanced diet?
 - a. Makes us energetic
 - b. Proper functioning of organs
 - c. Increases age

d. Improves metabolism

iii. Which vitamin do we get from sunshine?

a. Vitamin A

b. Vitamin B

c. Vitamin C

d. Vitamin D

18. Roshni, a girl of 14, faces difficulty in breathing. She usually gets a cough at night and sometimes early in the morning. She gets tired soon and also feels pain in her hands, feet, and shoulders. So, she takes an appointment with a doctor who finds out the disease at an early stage.

Based on the above case, answer the following questions.

i. What do you think about which disease Roshni is suffering from?

a. Diabetes

b. Hypertension

c. Asthma

d. Obesity

ii. What could be the reason behind the disease?

a. Pollution

b. Respiratory Disorder

c. Genetic Factor

d. All of these

iii. Which asana would be effective to cure the disease which Roshni had?

a. Tadasana

b. Parvatasana

c. Vajrasana

d. Savasana

19. Difference between the sagittal plane and horizontal plane.

OR

What do you mean by axis? Discuss various types of axes.

20. Explain the test items of the AAHPER Test.

21. How are sports injuries classified?
22. Discuss the sports participation of women in India.
23. What do you mean by Flexibility?
24. Discuss the causes of ODD.
25. What are the various factors affecting projectile trajectory?
26. Write a short note on vitamins.

OR

Write briefly about protein as an essential component of the diet.

27. Explain in detail the role of physical activities in the development of personality. Or What is the role of sports in personality development?
28. Recall the adaptive effects that take place in our body after engaging in exercise for a longer period.

OR

What do you understand by Coordinative ability? Discuss different types of coordinative abilities.

29. What is a league tournament? Draw a fixture of 10 teams using the round method.

OR

What do you mean by league match or round-robin tournament?

30. Discuss in detail about the Rockport fitness walking Test.

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Solution

Section A

1. (d) Knockout

Explanation: Knockout

OR

(b) $\frac{N(N-1)}{2}$

Explanation: $\frac{N(N-1)}{2}$

Here N stands for Total number of teams

2. (b) Bread and butter
3. (c) Hypertension

OR

(b) Third

4. (a) Sensory Processing Disorder
5. (d) Bones & muscles
6. (c) 2001
7. (c) Exercise

OR

(c) Soft Tissue Injury

8. (a) calf muscles
9. (c) Persona
10. (d) Flexibility development
11. (a) Assertion and reason both are correct statements and reason is the correct

explanation for the assertion.

Explanation: At that time women were only for household works.

12. (d) Overweight
13.
 - i. Pavan Muktasana
 - ii. Tadasana
 - iii. Vajrasana
 - iv. Ardh Matsyendrasana
14.
 - i. Lordosis
 - ii. Scoliosis
 - iii. Bow Legs
 - iv. Flat Foot
15. The problem arises when the term "**differently-abled**" is used to refer to an individual "**disabled**" person. It is borderline cutesy and it **diminishes** the actual experiences of disabled people. It suggests that the term disability should be uncomfortable and therefore should be avoided.
16. Projectile: A projectile is an object on which the only force acting is gravity. Power: Power is the rate at which work is done (measured in watts (W), in other words, the work is done per second.

OR

Kinesiology is a branch of physiology that studies mechanics and anatomy in relation to human movement.

17.
 - i. (d) All of these
Exp- Balanced diet comprises of carbohydrates, Vitamins, Proteins, Minerals, Fats, etc.
 - ii. (c) Increases age
Exp- Balanced diet increases our age only indirectly by improving our immune system and making us less prone to diseases.
 - iii. (d) Vitamin D
Exp- Sunlight is a free source of vitamin D.
18.
 - i. (c) Asthma
Exp- Asthma is a lung disease in which the airways get blocked or become a

narrow causing difficulty in breathing.

ii. (d) All of these

Exp- Asthma can be caused due to Air Pollution, respiratory infection, Genetic factors, etc.

iii. (b) Parvatasana

Exp- Parvatasana is very effective in curing Asthma.

19. **Sagittal or Medial plane:** A sagittal plane is a vertical plane passing from the rear to the front, dividing the body into left and right halves. It is also known as the anteroposterior plane. Most of the sports and exercise movements that are two-dimensional, such as running, long jumping and somersault takes place in this plane.
- Transverse or Horizontal plane:** The transverse plane divides the body into top and bottom halves. In fact, it divides the body into upper and lower sections. This plane lies horizontally that why it is also called a horizontal plane. Movements along this plane can include an ice-skating spin or rotation to play a tennis shot.

OR

An axis is a straight line around which an object rotates. Movements at the joints of the human musculoskeletal system are mainly rotational and take place about a line perpendicular to the plane in which they occur. This line is known as the axis of rotation.

There are the following types of axes of rotation:

- a. **Sagittal axis:** The sagittal axis passes horizontally from posterior to anterior. It is formed by the intersection of the sagittal and transverse plane. The sagittal axis passes from front to back.
- b. **Frontal axis:** The frontal axis passes horizontally from left to right. It is formed by the intersection of the frontal and horizontal plane. The frontal axis passes from side to side.
- c. **Vertical axis:** The vertical axis passes vertically from inferior to superior. It passes straight through the top of the head down between feet. It is formed by the intersection of the sagittal and frontal plane. It is also known as the longitudinal axis. It is the longest axis.

20. This test consists of the following six items:

- a. Pull-ups : In the 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. Shuttle 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.

21. Sports injuries are classified in various ways. The classification can be based on the time taken for the tissues to become injured, the tissue type affected and severity of the injury.

These are detailed below

1. Soft tissue Injury:-

- sprain
- strain
- contusion
- abrasion
- incision

2. Bone Injury:-

- Stress Fracture
- Green Stick Fracture
- Comminuted fracture
- Transverse Fracture
- Impacted Fracture

3. Joint Injury

- Dislocation of joint.

22. Sport is an area where gender inequality is strongly evident. The problem is more sociopsychological than anything else. The first Indian women to participate in the Olympics was in 1952. In 1975, the Government of India instituted the national sports festival for women sports. The sports authority of India was set up in 1984 with the

objective of broadcasting of sports and nurturing of talented children in different age groups by providing the infrastructure, education, coaching facilities and other related facilities. Indian female sportspersons, such as Anju Bobby George, PT Usha, Sania Mirza, Anjali Bhagwat, Saina Nehwal have made a mark for themselves in the world of sports and are gaining respect.

23. It is the ability of the joint to move to maximum range. The flexibility of an individual varies from joint to joint due to many reasons like the 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.
24. The various causes of Oppositional Defiant Disorder are as follows:
 - a. **Biological or Genetic factors**:: Children are more susceptible of developing ODD if they have a parent with a history of ADHD or ODD.
 - b. **Physical factors**: the presence of ODD traits has been linked to the existence of abnormal amounts of some brain chemicals. These brain chemicals, known as neurotransmitters, keep the brain chemicals themselves balance properly.
 - c. **Psychological factors**: Children may develop ODD if they don't have good relations with parents or have neglectful parents or have the inability to develop a social relationships.
25.
 - i. The angle of Projection.
 - ii. Initial Velocity.
 - iii. Gravity.
 - iv. Air resistance.
 - v. Projection of height relevant to the landing surface.
 - vi. Spin.
26. Vitamins are complex compounds of carbon and essential for the normal functioning of body. It is important for the 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 malabsorption.

OR

Proteins are the basic structure of all living cells. These are complex organic compounds. Protein is a chain of amino acids that contain carbon, oxygen, hydrogen, and nitrogen.

These are two types of proteins:

(i) Non-essential proteins

(ii) Essential proteins

All meat and other animal products are sources of proteins. The best sources are eggs, milk, meat, poultry, milk products, beans etc.

Functions of Proteins:

1. The cells of muscles and ligaments are maintained with protein.
2. Proteins are needed for the growth and development of children.
3. Proteins are the main components of muscles, organs, and glands.

27. Physical activities and sports play an important role in the development of the personality of an individual. These activities help in shaping up the personality of an individual such as:

1. Physical appearance: One of the primary aspects of one's personality is his physical appearance. Both boys and girls are very much concerned about how they look. Physical activities are conducive to the growth and development of the physique. Workouts in the gym are becoming a must for all the youngsters of today. So, this develops their outer personality which creates a good impression.
2. Social interactions: Physical activities and sports provide opportunities of interaction between athletes coming from different regions, speaking different languages, different caste and religion. This helps an individual to develop a multi-dimensional personality. Moral Values through sports is responsible for the development of sound and ideal character, a very essential attribute of personality.
3. Analytic thinking: This mental exercise enhance the intellectual abilities of the participants and broaden their mental horizon. It is well said that physique is of

no use if not governed by analytic thinking, analyzing and Disciplined and assertive: In sports one learns to make sincere efforts, which reflect positively in the development of an individual's personality. Code of discipline is the fundamental learning of any physical activity and effective participation in sports.

4. Disciplined and assertive: In sports, one learns to make sincere efforts, which reflect positively in the development of an individual's personality. Code of discipline is a fundamental learning of any physical activity and effective participation in sports.
5. Well balanced individual: Physical activities also provide recreation which go a long way in producing perfectly happy, satisfied and balanced individual having a pleasing and energetic personality, having zest for life experiences. Physical activities and sports are the basic needs of human beings which help in the development of well-balanced personality.

28. The adaptive effects that take place in our cardiovascular system after engaging in exercise for a longer period are:

1. Increase in heart size We cannot do the exercise on our heart directly, but when we perform any exercise regularly, our heart size increases. Exercising develops the muscles of the heart.
2. Increase in heart rate Generally an adult has a heart rate of 72 beats per minute while resting, but when he exercises, his heart rate increases as per the intensity and duration of the exercise.
3. An increase in stroke volume is the quantity of blood which the heart pumps out in a single stroke. Due to the heart's size increases, the stroke volume increases.
4. The decrease in cholesterol level Regular exercise reduces the cholesterol level in our blood, which has a direct link with blood pressure.
5. Increase in number and efficiency of capillaries Regular exercise increases the number of capillaries and their efficiency.
6. Reduced risk of heart diseases Regular exercise gradually reduces stress-related hormones from circulating in the blood. This results in an increase of blood flow in the blood vessels, which in turn, lowers the risk of building up of plaque which affects the heart. Hence, regular exercise. reduces the risk of heart diseases.
7. Slow down brain aging the regular physical activity reduces the risk of mild

cognitive impairment.

8. Improve muscular strength Ageing process does not hinder the individual's ability to enhance muscle strength.
9. Enhance the capacity of lungs Regular physical activity enhances the capacity of lungs
10. Improve flexibility Regular physical activity improves the elasticity of tendons, ligaments and joint capsules.

OR

Coordinative abilities are those abilities that enable an individual to do various related activities accurately and efficiently. Coordinative abilities mainly depend on the Central Nervous System.

Types:

- i. Orientation ability
 - ii. Coupling ability
 - iii. Reaction ability:
 - a. simple reaction ability
 - b. Complex reaction Ability
 - iv. Balance Ability
29. The league tournament is one in which if it is a single league tournament then each team plays with every other team once, if it is a double league tournament then each team plays with every team twice. There are two methods of drawing fixture:

a) Staircase method:

Here, no. of teams (n) = 10

No. of matches = $n(n-1)/2 = 45$

A vs B

A vs C B vs C

A vs D B vs D C vs D

A vs E B vs E C vs E D vs E

A vs F B vs F C vs F D vs F E vs F

A vs G B vs G C vs G D vs G E vs G F vs G

A vs H B vs H C vs H D vs H E vs H F vs H G vs H

A vs I B vs I C vs I D vs I E vs I F vs I G vs I H vs I

A vs J B vs J C vs J D vs J E vs J F vs J G vs J H vs J I vs J

b) Cyclic method :

Here, no. of teams (n) = 10

No. of matches = $n(n-1)/2 = 45$

No. of rounds = no. of teams - 1 = $10-1 = 9$

OR

League: These are also called Round robin tournament.

There are two types of league tournaments:

I. Single league tournament: In this type of tournament, every team shall play once with every other team. The total number of matches in a single league

tournament shall be $\frac{n(n-1)}{2}$

For example, if 10 teams are competing, the total number of matches to be played

shall be $\frac{n(n-1)}{2} = \frac{10(10-1)}{2} = \frac{10(9)}{2}$

II. Double league tournament: In this type of tournament, every team shall play twice with every other team. The total number of matches shall be $n(n-1)$, e.g., 10 teams are competing for the total number of matches:

$n(n-1) = 10(10-1) = 10(9) = 90$ matches.

30. Rockport Fitness Walking Test : This test is very good to measure the 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) Stopwatch, (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 the 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.