SAMPLE PAPER
Class XII
PHYSICAL EDUCATION (048)

TIME: 3 hrs **M.M: 70**

General Instructions:

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

SECTION A

1. How many total matches will be played in a Knockout fixture of 19 teams.

(a) 18 (b) 17

(c) 20 (d) 16 [1]

Ans. (a) 18

2. Given below are two statements labelled Assertion (A) and Reason (R).

Assertion: Knockout tournament is an elimination tournament.

Reason: In Knockout tournament, winner of each match advances in the tournament and the loser gets eliminated.

In the context of the above two statements, which one of the following is correct?

(a) Both (A) and (R) are true and (R) is the correct explanation of (A).

(b) Both (A) and (R) are true but (R) is not the correct explanation of (A).

(c) (A) is true but (R) is false.

(d) (A) is false but (R) is true. [1]

Ans. (a) Both (A) and (R) are true and (R) is the correct explanation of (A).

3. Match the following:

List I		List II	
I	Knock-Knees	1.	Increased exaggeration of backward curve
II	Kyphosis	2.	Wide gap between the knees when standing with feet together
III	Lordosis	3.	Knees touch each other in normal standing position
IV	Bow Legs	4.	Inward curvature of the spine

(a) I-3, II-1, III-4, IV-2 (b) I-1, II-3, III-4, IV-2

(c) I-4, II-2, III-1, IV-3 (d) I-2, II-3, III-4, IV-1 [1]

Ans. (a) I-3, II-1, III-4, IV-2

4. For developing muscles, which nutrient should be increased in diet?

(a) Vitamins (b) Protein

(c) Minerals (c) Carbohydrates [1]

Ans. (b) Protein

5. Identify the asana:

(a) Paschimottanasana (b) Halasana
(c) Vajrasana (d) Dhanurasana [1]

Ans. (b) Halasana

6. Which asana has a pose like cobra?
(a) Bhujangasana (b) Dhanurasana
(c) Vajrasana (d) Ardhmatsyendrasana [1]

Ans. (a) Bhujangasana

7. Deaflympics Games was first organized in the year…… .
(a) 1896 (b) 1960
(c) 1924 (d) 1951 [1]

Ans. (c) 1924

8. Menarche is defined as the:
(a) Ending of menstrual cycle in women (b) Beginning of menstrual cycle in women
(c) Time of pregnancy (d) Missing of menstrual cycle [1]

Ans. (b) Beginning of menstrual cycle in women

9. Which of the following are fat-soluble vitamins?
(a) Vitamin D & K (b) Vitamin B & C
(c) Vitamin A & E (d) Both option (a) and (c)

Ans. (d) Both option (a) and (c)

10. Match the following:

List I		**List II**	
I	Plate Tapping Test	1.	Upper body strength in boys
II	Push-up	2.	Reaction time
III	Partial Curl-up	3.	Upper body strength in girls
IV	Modified Push-up	4.	Abdominal strength

(a) I-2, II-1, III-4, IV-3 (b) I-2, II-3, III-1, IV-4
(c) I-1, II-3, III-2, IV-4 (d) I-2, II-3, III-4, IV-1 [1]

Ans. (a) I-2, II-1, III-4, IV-3

11. Which of the following is a physiological factor determining flexibility?
(a) Bone density (b) Joint structure
(c) Cardiac output (d) Tidal volume [1]

Ans. (b) Joint structure

12. The ability to tolerate higher concentration of ……. can help in improving endurance.
(a) Lactic acid (b) Hydrochloric acid
(c) Acetic acid (d) Sulphuric acid [1]

Ans. (a) Lactic acid

13. A ball is hit and is stopped by gravitational force, this is an example of which Law of Motion?
(a) Law of inertia (b) Law of acceleration
(c) Law of action and reaction (d) Both (a) and (b) [1]

Ans. (a) Law of inertia

14. In which of the following sports does friction play the least important role?

(a) Car race (b) Football

(c) Ice skating (d) Hockey [1]

Ans. (c) Ice skating

15. Instrumental aggression is related to:

(a) Accepting defeat (b) Achieving goal

(c) Only performance (d) Hurting someone to gain something [1]

Ans. (b) Achieving goal

16. Given below are two statements labelled Assertion (A) and Reason (R).

Assertion: Aggression is a part of human behaviour and is necessary for an individual to live and struggle for higher achievements.

Reason: Aggression is inevitable and inseparable in sports activities.

In the context of the above two statements, which one of the following is correct?

(a) Both (A) and (R) are true and (R) is the correct explanation of (A).

(b) Both (A) and (R) are true but (R) is not the correct explanation of (A).

(c) (A) is true but (R) is false.

(d) (A) is false but (R) is true. [1]

Ans. (a) Both (A) and (R) are true and (R) is the correct explanation of (A).

17. Which of these is a type of endurance?

(a) Static (b) Specific

(c) Dynamic (d) Relative [1]

Ans. (b) Specific

18. Which type of coordinative ability is required in games like judo and wrestling?

(a) Orientation ability (b) Coupling ability

(c) Adaptation ability (d) Differentiation ability [1]

Ans. (c) Adaptation ability

SECTION B (Attempt any 5)

19. Enlist different types of postural deformities. [2]

Ans. (a) Kyphosis (b) Lordosis

(c) Scoliosis (d) Knock-Knees

(e) Flat Foot (f) Bow Legs

(any four)

20. How can we say that protein is an essential component of diet? [2]

Ans. Protein is an essential component of diet because it is known as the building block of life and it increases the strength of muscle fibers. It repairs and maintains body tissue and is also connected with the immune mechanism of the body.

21. Mention the tests performed on 9 to 18 yrs. of age group in SAI Khelo India Fitness Test and explain any one. [2]

Ans. (a) Body Composition – BMI

(b) Strength

Abdominal – Partial Curl-up

Muscular Endurance – Push-ups for boys, Modified Push-ups for girls

(c) Flexibility – Sit and Reach Test

(d) Cardiovascular Endurance – 600m Run/Walk

(e) Speed – 50m Dash

22. List down the types of bone injuries. [2]

Ans. (a) Stress fracture (b) Green-stick fracture
(c) Comminuted fracture (d) Transverse fracture
(e) Impacted fracture

23. What do you understand by the term goal-setting? [2]

Ans. Goal-setting is one of the best motivational strategies. It improves performance by directing attention, increasing effort and persistence. These goals can be short-term or long-term and are designed to help athletes focus their efforts, stay motivated, track progress, and ultimately improve their performance.

24. Define flexibility and list down its types. [2]

Ans. It is the ability which helps to do the movements with greater amplitude or with a great range of motion or we can say that flexibility refers to the range of movement in a joint or series of joints and the length in muscles that cross the joints to induce a bending movement or motion.

Types of flexibility are active and passive.

SECTION C (Attempt any 5)

25. Specify the purpose of specific sports programme organised for community services. [3]

Ans. These days, specific sports programmes are organised to make people aware regarding particular cause or any particular issue. These programmes are not related to competitions only but have special reasons. They create awareness related to a disease like AIDS, Swine Flu, collecting funds for special cause like flood, earthquakes etc.

26. What are the health problems faced by women due to female athlete triad in sports and athletic performance? [3]

Ans. The female athlete triad is a problem consisting of Eating Disorder, Osteoporosis and Amenorrhea. The following problems are faced due to the female athlete triad—

(a) Increased risk of injury (b) Feeling tired
(c) Shortness of breath (d) Stomach inflammation
(e) Muscle weakness (f) Weak bones
(g) Hormonal imbalance (h) Psychological effects

27. Write in detail the aims and objectives of Special Olympic Bharat. [3]

Ans. The Paralympic games are a multi-sports event for athletes with physical, mental and sensorial disabilities. This includes mobility disabilities, amputees, visual disabilities. The main objectives of Paralympics are as follows:

(a) Promote Para sports worldwide, without unlawful discrimination on the grounds of disability, race, skin colour, nationality, ethnic or social origin, age, sex, gender, sexual orientation, language, political or other opinion, religion or other beliefs, circumstances of birth, or other unlawful ground.

(b) Support and encourage educational and cultural activities and exchanges that contribute to the development and promotion of the Paralympic Movement, enhance awareness of disability, and drive social inclusion.

28. Differentiate between nutritive and non-nutritive components of a diet on the basis of their functions. [3]

Ans.

Nutritive Components	Non-Nutritive Components
Nutritive components of food are those elements that provide a considerable quantity of energy to the system, such as protein, carbohydrates and fats, all of which are essential to the body.	Non-nutritive components of diet are those components that do not have any nutritional value but are nonetheless necessary for the body in tiny quantities.
Provide Energy	Provide flavour and texture
Support growth and repair	Act as food addictive
Regulate metabolism	Provide antioxidant

29. With the help of a suitable sports example explain the application of Newton's third law in sports. [3]

Ans. Newton's third law states that for every action, there is an equal and opposite reaction.

In swimming, Newton's third law is evident in the propulsion generated by a swimmer's arm strokes against the water. When a swimmer pulls their arm through the water with force (action), the water exerts an equal and opposite force backward on the swimmer's hand (reaction). This reaction force propels the swimmer forward through the water.

30. How can we enhance sports performance with the help of self-talk and self-esteem? [3]

Ans. Self-talk and self-esteem play significant roles in enhancing sports performance. Motivational self-talk is necessary and productive. It boosts performance by helping you to build confidence and enhance your belief in your ability to perform. It also helps athletes maintain a positive mindset, enhance their confidence and improve their performance.

Self-esteem is also crucial in sports performance. It helps in taking effective decision and reduces anxiety and stress. Individuals with high self-esteem are better equipped to bounce back from setbacks and failures.

SECTION D

31.

I. Choose the function of boarding committee— [1]

(a) To take teams to the venue of match (b) To provide them meals

(c) To take care of their stay (d) To arrange opening ceremony

Ans. (c) To take care of their stay

II. What is the work of ceremony committee? [1]

(a) To take teams to the venue of match (b) To provide them meals

(c) To take care of their stay (d) To arrange opening ceremony

Ans. (d) To arrange opening ceremony

III. Grounds and equipment committee does not perform: [1]

(a) To arrange teams match venues (b) To provide them meals

(c) To take care of proper officiating (d) To make fixtures

Ans. (b) To provide them meals

IV. Why are committees required? [1]

(a) To organize the event in perfect manner (b) To distribute the work

(c) To make the best use of resources (d) All of these

Ans. (d) All of these

(Questions for Visually Impaired)

Ram is a secretary of state basketball association. He has been given the responsibility to organize a sub-junior national tournament. He wants to organise the event at a large scale and start distributing the work in various committees. He delegates the duties to different individuals with authority and responsibility.

Answer the following questions on the basis of above paragraph.

I. Which committee is responsible to make event awareness?

(a) Publicity committee (c) Registration committee

(b) Hospitality (d) Transports

Ans. (a) Publicity committee

II. ..... is the process of identifying and grouping the work to be performed.

(a) Planning (b) Directing

(c) Organising (d) Controlling

Ans. (a) Planning

III. The reception committee for the tournament is responsible for ..... .

(a) Welcoming the participants

(b) Arranging accommodation and meals for the participants

(c) Proper upkeep of the venues

(d) Both (a) and (b)

Ans. (d) Both (a) and (b)

IV. If the responsibility of a committee is to fix venue, date and timing of the sports events, it is a ..... .

(a) Post-tournament committee (b) Pre-tournament committee

(c) During-tournament committee (d) All of these

32. (b) Pre-tournament committee

I. The first paralympics was organised in:

(a) 1960 (b) 1970

(c) 1965 (d) 1985

Ans. (a) 1960

II. Special education is a branch of education that deals with:

(a) Educating children in special schools

(b) Instructions designing for students with special needs

(c) To provide opportunity of special education

(d) All of these

Ans. (b) Instructions designing for students with special needs

III. Why is it called the Paralympics?

(a) The first competition was held in Paraguay.

(b) It was originally for paramilitary soldiers injured in WW2.

(c) The event runs parallel with the Olympics.

(d) It's an event for paraplegics.

Ans. (c) The event runs parallel with the Olympics.

IV. What is the motto of the Paralympic Games?

(a) Spirit in motion (b) Citius, Altius, Fortius

(c) Faster, Higher, Stronger (d) Diversity, Equality, Inclusion

Ans. (a) Spirit in motion

(Question for Visually Impaired)

Read the paragraph and answer the following questions:

The Paralympic Games are a major international multi-sport event involving athletes with a range of physical disabilities, including impaired muscle power, impaired passive range of movement, limb deficiency, leg length difference, short stature, hypertonia, ataxia, athetosis, vision impairment and intellectual impairment.

Dr. Ludwig Guttmann, known as the Father of Paralympics, organised the first official Paralympic Games in Rome featuring 400 athletes from 23 countries.

The Paralympics have grown significantly over the years, now attracting thousands of athletes from over 100 countries. The Paralympic movement has played a vital role in challenging societal perceptions of disability and in promoting the rights and inclusion of people with disabilities worldwide.

I. What is the primary focus of the Paralympic Games?

(a) To promote physical fitness among children

(b) To involve athletes with a range of physical disabilities in competitive sports

(c) To honour the history of the Olympic Games

(d) To raise funds for sports organisations

Ans. (b) To involve athletes with a range of physical disabilities in competitive sports

II. Who organised the first event that eventually led to the creation of the Paralympic Games?

(a) Pierre de Coubertin (b) Dr. Ludwig Guttmann

(c) Lord Zeus (d) Norabji Tata

Ans. (b) Dr. Ludwig Guttmann

III. In which year were the first official Paralympic Games held?

(a) 1948 (b) 1952

(c) 1960 (d) 1964

Ans. (c) 1960

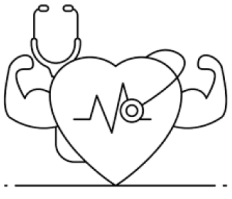
IV. Where were the first official Paralympic Games held?

(a) Tokyo, Japan (b) London, United Kingdom

(c) Rome, Italy (d) Sydney, Australia

Ans. (c) Rome, Italy

33.



I. What is the primary effect of exercise on cardio-respiratory system?

(a) Decreased heart rate (b) Increased stroke volume

(c) Decreased lung capacity (d) Decreased blood pressure

Ans. (a) Decreased heart rate

II. What is stroke volume?

(a) The volume of blood ejected by the heart per minute
(b) The volume of blood ejected by the heart per beat
(c) The volume of blood in the ventricles at the end of diastole
(d) The volume of blood pumped by the heart during exercise

Ans. (b) The volume of blood ejected by the heart per beat

III. Cardiac output is:

(a) The volume of blood ejected by the heart per minute.
(b) The volume of blood ejected by the heart per beat.
(c) The volume of blood in the ventricles at the end of diastole.
(d) The volume of blood pumped by the heart during exercise.

Ans. (a) The volume of blood ejected by the heart per minute.

IV. Blood pressure is:

(a) The volume of blood ejected by the heart per minute
(b) The force exerted by blood against the walls of arteries
(c) The rate of blood flow through the veins
(d) The amount of oxygen carried by red blood cells

Ans. (b) The force exerted by blood against the walls of arteries

(Question for Visually Impaired)

Ramesh is an athlete of XYZ school. He is used to doing 100m event for his school. He works hard throughout the year to give his best performance. One day he got injured in winter season due to improper warming-up. He was given first-aid before being sent to the hospital.

I. Sprain is an injury of the

(a) Ligament (b) Muscle
(c) Bone (d) Joint

Ans. (a) Ligament

II. In PRICE treatment, I stands for

(a) Iceing (b) Incline
(c) Incision (d) Irritation

Ans. (a) Iceing

III. Abrasion is a

(a) Type of fracture (b) Joint dislocation
(c) Soft tissue injury (d) Internal injury

Ans. (c) Soft tissue injury

IV. Why is warming-up necessary?

(a) To avoid injuries (b) To increase pulse rate
(c) To increase body temperature (c) All of these

Ans. (c) To increase body temperature

SECTION E (Attempt any 3)

34. List down any four asanas used for prevention of Hypertension. Explain the procedure, benefits and contraindications of any one of them with the help of a stick diagram. [4]

Ans. Blood pressure is the force of your blood pushing against the walls of your arteries. Each time your heart beats, it pumps blood into the arteries.

The four asanas used for the prevention of hypertension are as follows:

- Tadasana
- Katichakrasana
- Uttanpadasana
- Ardha Halasana

Procedure, benefits and contraindications of Tadasana:

Tadasana

The word Tada in Sanskrit means 'palm tree'. This asana is called tadasana because in this asana the person stands straight like a tree stretching their whole body upwards.

Procedure:

To perform Tadasana the following steps should be performed:

1. Stand erect, feet together, hands by the side of the thighs. Keep the back straight and look in front.
2. Stretch the arms upward; keep them straight and parallel to each other in vertical position, with the palms facing each other.
3. Slowly, raise the heels as much as you can and stand on toes. Stretch your body as much as possible.
4. Maintain the position for 5-10 seconds comfortably.
5. To come back, bring the heels on the floor first. Slowly bring down the hands by side of the thighs and relax.

Benefits:

1. It stretches the body muscles.
2. It helps in strengthening thighs, knees and ankles.
3. By doing this asana regularly, children can increase their height.
4. It helps to remove laziness and lethargy.

Precautions:

1. The inner upper arms should touch the respective ears.
2. Stretch the arms and fingers in full capacity.
3. Keep the head, neck and the body in one straight line.
4. Avoid bending forward or backward.

Contraindications:

1. Those having complaints of vertigo should avoid practising this asana.

35. Discuss the purpose of Rikli and Jones Fitness Test and explain the procedure of any two test batteries in detail.

[5]

Ans. Even in old age, everybody wants to be able to continue to do what they want, without pain, for as long as possible. It requires proper fitness during such age. In the beginning, there were not enough tests to assess the functional fitness. Recognizing the need for a tool to evaluate the functional fitness performance of older adults, Dr. Roberta Rikli and Dr. Jessie Jones developed the senior fitness test at Fullerton University. This test is also known as Fullerton Functional Test for senior citizens. The test is based on a functional fitness framework, which points to the ability to perform everyday activities.

1. Chair stand test for lower body— Lower body strength, leg strength and endurance
2. Arm curl test for upper body— The upper body strength, arm flexor, strength and endurance
3. Chair sit and reach test for lower body— The lower back flexibility
4. Back-scratch test for upper body— The upper body flexibility of the body flexibility and range of motion of the shoulders
5. Eight foot up and Go test for agility— The motor agility, speed and balance
6. Six-minute walk test— Cardio-vascular endurance and recovery

Chair Stand Test for Lower Body Strength

Purpose: The purpose of the test is to measure the strength of lower body of adults over 60 years of age. Lower body strength is important for activities such as getting out of a chair, on the bus, out of the car and rising up from a kneeling position in the house or garden. The strength of your lower body can directly affect the ease with which you perform the activities you do every day.

Equipment required: A straight back or folding chair without arm rests (seat 17 inches/44 cm high), stopwatch.

Procedure:

1. Place the chair against a wall where it will be stable.
2. Sit in the middle of the chair with your feet flat on the floor, shoulder-width apart, back straight.
3. Cross your arms at the wrist and place them close to the chest.
4. On the command 'go' you will rise up to a full stand and sit again as many times as you can during the 30-second interval.
5. Count the total number of complete chair stands (up and down equals one stand). If the subject has completed a full stand from the sitting position when the time is elapsed, the final stand is counted in the total.

Scoring: The score is the number of completed chair stands in 30 seconds.

Arm Curl (Bicep) Test for Upper Body Strength

Purpose: This test measures upper body strength and endurance.

Equipment required: 5-pound weight (women), 8-pound weight (for men), a chair without armrests, stopwatch.

Procedure:

1. The subject sits on the chair holding the weight in the hand using a suitcase grip (palm facing towards the body).
2. This test is conducted on the dominant arm side (or stronger side).
3. On the command 'go', do as many curls as you can in the allotted 30-second time period.
4. Do not swing the weight.
5. If you have started raising the weight again and are over halfway up when time is called, you may count that curl.

Scoring: The score is the total number of controlled arm curls performed in 30 seconds.

36. Define strength and differentiate between Isometric, Isotonic and Isokinetic exercises. [5]

Ans. Strength is the ability of the muscles to overcome resistance. Strength is necessary for the performance of physical activities, whether it is a physical activity associated with daily living.

Barrow and McGee have defined Strength as, 'The capacity of the whole body or any of its parts to exert force'.

Isometric Exercises		**Isotonic Exercises**	
(i)	Movements of exercising body parts or objects are not visible to third person.	(i)	Movements of exercising body parts are visible to third person.
(ii)	Length of exercising muscles doesn't change.	(ii)	Length of exercising muscles changes.
(iii)	Less muscular endurance is developed.	(iii)	More muscular endurance is developed.
(iv)	These exercises can be performed at any place.	(iv)	These require specific places.
(v)	These develop strength at one place.	(v)	These develop uniform strength.
(vi)	Isometric exercises develop strength and less flexibility.	(vi)	Isotonic exercises develop strength along with flexibility.

(vii)	Isometric exercises create boredom.	(vii)	Isotonic exercises are interesting because they are self-testing.
(viii)	Recovery from muscular fatigue is slow.	(viii)	Recovery from muscular fatigue is faster.
(ix)	*E.g.,* doing wall push-ups.	(ix)	*E.g.,* exercising with light weights.

Isokinetic Exercises	
(i)	This involves movement but maintains a constant speed.
(ii)	Isokinetic generally involves muscle contraction against an electronic resistance and is specific to a particular sport.
(iii)	It develops explosive stength as well as strength endurance.
(iv)	Iso means same while kinetic means speed. Isokinetic exercises are done with machines that regulate movement, velocity and resistance.
(v)	Excellent development of power.
(vi)	Better development of speed as compared to Isotonic.
(vii)	Examples are: (a) Running on treadmill with a fixed speed of steps. (b) Cycling with a set of fixed number of revolutions per minute.

37. What are the various types of friction? With the help of a suitable example explain why friction is necessary in sports. [5]

Ans. Friction is a force which opposes efforts to slide or roll one body over another. Without friction it would be impossible to walk or run but on the other hand it increases the difficulty of moving.

The amount of friction between one surface and another depends upon the nature of the surface and the forces pressing them together. Generally speaking, smooth surface has less friction than rough.

Types of Friction:

- **Static Friction:** It is the opposing force which acts between two surfaces in which one tends to move over the other.
- **Dynamic Friction:** It acts between two surfaces in which one is actually moving over the other. It may be of two types, *i.e.*, sliding and rolling.

Friction is Necessary: Friction is helpful in sports. Nothing would be able to move without friction. Friction is how things accelerate. Without friction we would not be able to walk; we would just be slipping. Without friction we cannot give better performance in sports. Examples: athletes use spikes and footballers use studs to have appropriate friction while they run fast. A gymnast uses lime powder on his/her palms to perform many activities like horizontal bar, uneven bar, Roman rings. In Badminton, players usually rub the soles of their shoes with lime before going to the wooden court. It is done to provide better grip on the floor so that one can move safely.