

SAMPLE QUESTION PAPER - 4
SUBJECT- PHYSICAL EDUCATION (048)
CLASS XII (2023-24)

Time Allowed: 3 hours

Maximum Marks: 70

General Instructions:

1. The question paper consists of 5 sections and 37 Questions.
2. Section A consists of question 1-18 carrying 1 mark each and is multiple choice questions. All questions are compulsory.
3. Sections B consist of questions 19-23 carrying 2 marks each and are very short answer types and should not exceed 60-90 words. Attempt any 5.
4. Sections C consist of Question 24-28 carrying 3 marks each and are short answer types and should not exceed 100-150 words. Attempt any 5.
5. Sections D consist of Question 29-31 carrying 4 marks each and are case studies. There is internal choice available.
6. Section E consists of Question 32-34 carrying 5 marks each and are short answer types and should not exceed 200-300 words. Attempt any 3.

Section A

1. Identify the asana:

[1]



a) Katichakrasana

b) Pavanmuktasana

c) Tadasana

d) Matsayasana

2. For the successful organization of the sports meet, committees are formed under three heads. Which of the following is NOT one of them?

[1]

a) Post-meet committee

b) Pre-meet committee

c) During-meet committee

d) First-meet committee

3. Which among the following body building group does not include?

[1]

a) Cereals and roots and tubers

b) Pulses

c) Nuts and oilseeds

d) Milk and milk products

4. Which of these is needed for Eight Foot Up and Go Test? [1]

- a) Obstacles
- b) Stop watch
- c) Shoes
- d) Walking stick

5. **Assertion (A):** In anaemia, adult female athletes energy requirements are mainly affected. [1]

Reason (R): Anaemia is a condition in which the number of red blood cells becomes lower than normal.

- 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.

6. Psychology is the study of: [1]

- a) Behaviour
- b) Motor development
- c) Motion
- d) Cardio-Respiratory system

7. Gomukhasana and Padmasana are performed to rectify which postural deformity? [1]

- a) Flatfoot
- b) Knock-knees
- c) Bow legs
- d) Scoliosis

8. Identify the picture given below: [1]



- a) Second Law of Motion
- b) First Law of Motion
- c) Third Law of Motion
- d) Law of Effects

9. Match the following: [1]

(a) committee for publicity	(i) welcome chief guests
(b) reception committee	(ii) arrange seats

(c) committee for officials	(iii) advertise sports events
(d) committees on entries and programmes	(iv) select judge

- a) (a) - (i), (b) - (iii), (c) - (iv), (d) - (ii) b) (a) - (iii), (b) - (i), (c) - (iv), (d) - (ii)
- c) (a) - (iii), (b) - (i), (c) - (ii), (d) - (iv) d) (a) - (iii), (b) - (iv), (c) - (i), (d) - (ii)

10. **Assertion (A):** Combination tournaments are organized mostly in zonal matches. **Reason (R):** There are one-to-one matches or two players on each side accepting the challenge in combination tournaments. [1]

- 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.

11. Which of the following is a requirement for a long distance runner? [1]

- a) All of these b) Good strength
- c) Good height d) Good cardiovascular Endurance

12. Emotionally unstable, anxiety and sadness are attributes of which personality dimension? [1]

- a) Agreeableness b) Neuroticism
- c) Extroversion d) Openness

13. What is main function of fluorine? [1]

- a) Prevent dental disease b) Protect from Anaemia
- c) Stimulates insulin activity d) Formation of RBC

14. Which of the following is not a part of balanced diet? [1]

- a) Vitamins b) Carbohydrates
- c) Proteins d) Probiotics

15. Publication of rules and regulations should be done _____. [1]

- a) Post event b) During event

- c) Any time during the event d) Pre event

16. In _____ there is no provision of seeding for extraordinary teams and players. [1]

- a) Tournament b) Combination
c) League d) Fixtures

17. The formula to measure BMI (Body Mass Index) is: [1]

- a) Weight + Height b) $\text{Weight} \times \text{Height}^2$
c) $\frac{\text{weight}}{\text{height}^2}$ d) $\frac{\text{height}^2}{\text{weight}}$

18. Roughage is a component of food which has [1]

- a) Heavy nutritional value b) Very high nutritive value
c) No nutritive value d) Low nutritive value

Section B

Attempt any 5 questions

19. What is the usefulness of back scratch test for senior citizens? [2]
20. What is Amenorrhoea in female athletes triad? [2]
21. What is SAI Khelo India Fitness assessment program for school going children? [2]
22. Elucidate the effect of exercise on the hypertrophy of muscle fibres. [2]
23. What is Kraus- Weber test? [2]

Section C

Attempt any 5 questions

24. List any four changes happening in the muscular system due to exercising. [3]
25. What do you mean by knock-out tournament? Draw the fixture of 21 teams on a knock-out basis. [3]
26. How Newton's second law and third law of motion can be applied in sports. [3]
27. Construct a seven day training plan for the upcoming one day knock-out tournament of badminton. [3]

28. What are the changes that take place in cardiovascular system by doing regular exercise? [3]

Section D

29. Read the text carefully and answer the questions: [4]

Rahul, a student of class XII, has recently joined a gym near his house to get a toned and muscular body. He consults his gym trainer regarding his diet and is advised to increase the intake of protein in his diet.



- (i) Proteins are also known as _____.
- (ii) Deficiency of protein can cause _____.
- (iii) How do proteins help in building the body?
- (iv) What is included in a balanced diet?

OR

Anorexia Nervosa is related to _____.

30. Read the text carefully and answer the questions: [4]

While organizing sports events for the Annual Sports Day, Arjun and Ravi being the captain and vice captain of sports, formed various committees as shown below.



- (i) Members of which committee are responsible for welcoming guests and spectators?
- (ii) Announcement of venue, date and events is done by _____.
- (iii) Organizing and conducting of sports events involve _____.
- (iv) Who takes complete responsibility for the success of the competition?

OR

The work of committees is divided into _____.

31. **Read the text carefully and answer the questions:** **[4]**

Posture plays a very significant role in our daily activities. Correct posture means the balancing of body in accurate and proper manner. Various types of postural deformities can be identified in individuals.



- (i) From the above-given picture, the deformities seen on the left most is caused due to deficiency of which nutrients?
- (ii) Walking on the inner edge of the feet can be a remedy for _____.
- (iii) The person in the middle is suffering from _____.
- (iv) Horse-riding is the best exercise for clearing which deformity?

Section E

Attempt any 3 questions

- 32. Elaborate the procedure, benefits and contraindications of Trikonasana and Vajrasana to prevent obesity. **[5]**
- 33. Discuss in detail the concept of inclusion in sports. **[5]**
- 34. Define speed and describe the types and various methods of Improving Speed. **[5]**

Answers

Section A

1.
(b) Pavanmuktasana
Explanation: Pavanmuktasana
2.
(d) First-meet committee
Explanation: The first-meet committee is not a type of committee formed for organising a meet.
3. **(a)** Cereals and roots and tubers
Explanation: Body building group does not include Cereals and roots and tubers.
4.
(b) Stop watch
Explanation: The equipment required for Eight foot up and go test for Agility includes stopwatch, straight back or folding chair (seat 17 inches/44 cm high), cone/marker, measuring tape and area clear of obstacles.
5. **(a)** Both A and R are true and R is the correct explanation of A.
Explanation: Both A and R are true and R is the correct explanation of A.
6. **(a)** Behaviour
Explanation: Behaviour
7.
(b) Knock-knees
Explanation: Knock-knees
8.
(c) Third Law of Motion
Explanation: Third Law of Motion
9.
(b) (a) - (iii), (b) - (i), (c) - (iv), (d) - (ii)
Explanation: (a) - (iii), (b) - (i), (c) - (iv), (d) - (ii)
10.
(c) A is true but R is false.
Explanation: A is true but R is false.
11.
(d) Good cardiovascular Endurance
Explanation: Good cardiovascular Endurance
12.
(b) Neuroticism
Explanation: Neuroticism

13. (a) Prevent dental disease

Explanation: Prevent dental disease

14.

(d) Probiotics

Explanation: Probiotics is not a part of a balanced diet.

15.

(d) Pre event

Explanation: Publication of rules and regulations should be done pre event.

16.

(c) League

Explanation: In league, there is no provision of seeding for extraordinary teams and players.

17.

(c) $\frac{\text{weight}}{\text{height}^2}$

Explanation: $\text{BMI} = \frac{\text{weight}}{\text{height}^2}$

18.

(c) No nutritive value

Explanation: Although roughage has no nutritional value, it plays an important role in our diet. It prevents constipation and helps in regulating digestion. It helps in regular bowel movements. It helps the body to get rid of undigested food.

Section B

19. The usefulness of the back scratch test for senior citizens is to assess the upper body flexibility, particularly the shoulder. This is important in performing various items of daily routine like combing one's hair, putting on garments requiring to be worn from over the head, reaching for a seat belt etc.

20. Amenorrhoea is a condition in which there is an absence of menstrual periods or they become irregular. It is associated with women athletes because they do intensive exercises which is not followed by taking enough calories. This leads to hormonal imbalances which may cause amenorrhoea.

21. SAI Khelo India Fitness Assessment program was launched in 9th Jan 2019 by the Indian government under the Ministry of Youth Affairs and Sports. The main objective of this program is to achieve supreme level of physical fitness, mass participation and achieving excellence in sports.

22. The size of the muscle fibre is usually responsible for gaining strength and muscular endurance. Weight training causes the hypertrophy of muscles.

23. The Kraus Weber Test is a test of minimum muscular fitness of the various muscles of the body. The test consists of six items which indicate the level of muscular strength and flexibility of key muscle groups.

Section C

24. Changes happening in the muscular system due to exercising.

- i. Change in size and shape of Muscle.
- ii. Increase in the Strength of Muscles.
- iii. Increase in muscle Coordination.
- iv. Entrance of Greater Quantity of Oxygen in the Body.
- v. Proper Blood Circulation.
- vi. Effects on Bones and Joints.
- vii. Effective Respiration.
- viii. Increase in the Resistance Power of Body.

25. In this type of tournament, all the contestants are eliminated until only one winner is left at the end. The team which is defeated once automatically gets eliminated immediately from the tournament. It means defeated team not get a second opportunity.

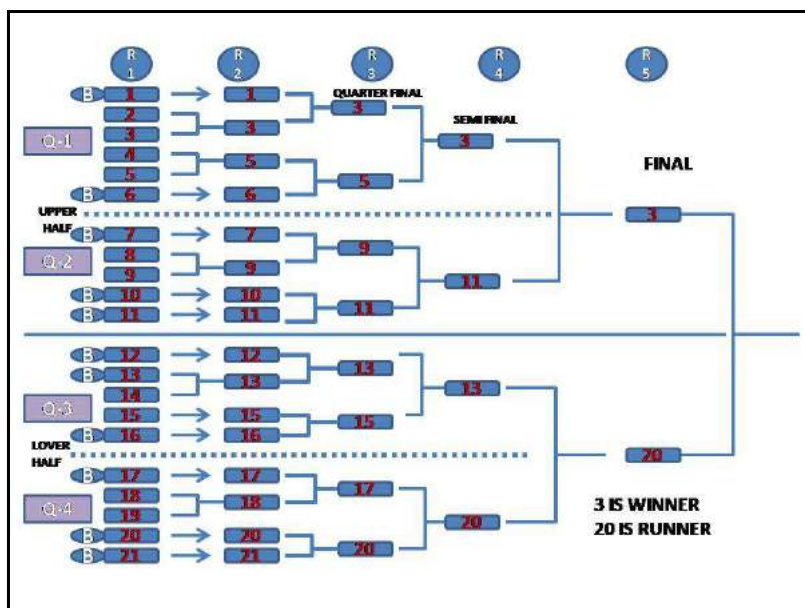
fixture of 21 teams

number of team = 21

- Total number of matches = $n-1 = 21-1 = 20$
- Total no of rounds = Nearest power of two of 21 = $(2)^4 = 16$
- Number of teams in upper half = $\frac{N+1}{2} = \frac{21+1}{2} = 11$
- Number of teams in lower half = $\frac{N-1}{2} = \frac{21-1}{2} = 10$
- Total number of byes = Next power of two - total teams = $16 - 21 = 11$ byes
- number of byes in upper half = $\frac{nb-1}{2} = \frac{11-1}{2} = 5$
- number of team in lower half = $\frac{nb+1}{2} = \frac{11+1}{2} = 6$

total number team in each quarter =

= 1st Quarter	= $Q+1 = 5+1 = 6$ teams
= 2nd Quarter	= $Q+0 = 5+0 = 5$ teams
= 3rd Quarter	= $Q+0 = 5+0 = 5$ teams
= 4th Quarter	= $Q+0 = 5+0 = 5$ teams



26. 1. **Law of acceleration:** According to this law, A change in motion is directly proportional to the force producing it and inversely proportional to its mass. If two unequal forces are applied to objects of equal mass, the object that has greater force applied will move faster. Conversely, if two equal forces are applied to objects of different masses, the lighter mass will travel at a faster speed.eg. In hammer throw, a thrower who is stronger will throw the hammer farther than a thrower who is less strong.
2. **Law of reaction:** According to this law 'For every action there is an equal and opposite reaction.' There are so many examples in sports where this law is applied. e.g., In swimming a swimmer pushes the water backwards (action) and the water pushes the swimmer forward (reaction) with the same force. In swimming, a swimmer pushes the water backwards (action). The water pushes the swimmer forward(reaction) with the same
27. Seven day training plan will be constructed according to the micro-cycle training plan. Training plan format is an given below:

Micro-Cycle Training Plan - 7 Day Plan			
Preparatory Period -4 days		Competition Period -1 day	Transitional Period-1-2 days
Phase-1 - General preparation	1 Day	Pre-Competition - Warmup matches and tactical preparation	Non-Sports Activities
Phase-2 - Specific sports skills practice	2 Days	During Competition - execution of strategies and tactics	Recreational type of activities
Phase-3 - Strategy and tactical preparation	1 Day	Post-Competition - feedback and self-analysis of performance	Sports specialisation related activities.

28. The changes that take place in cardiovascular system are:

- i. **Stroke Volume increases at resting condition:** The stroke volume at rest remains up to 50-70 ml/beat in untrained individuals; in trained individuals it ranges from 70-90 ml/beat and in the elite endurance athletes, it ranges from 90-110 ml/beat.
- ii. **Faster Recovery Rate:** Regular exercises speed up the recovery rate. In comparison to a beginner, heart rate of trained athletes becomes normal earlier. The recovery becomes faster as the rate of respiration becomes normal very quickly as well.
- iii. **Blood pressure decreases:** At resting condition, the systolic and diastolic blood pressure decrease by up to 10 mm as a result of regular exercise.

Section D

29. Read the text carefully and answer the questions:

Rahul, a student of class XII, has recently joined a gym near his house to get a toned and muscular body. He consults his gym trainer regarding his diet and is advised to increase the intake of protein in his diet.



(i) body building food

(ii) Kwashiorkor

Body requires only 0.36 gram of protein per pound of the ideal body weight. If protein is not taken in appropriate amount in diet, then the deficiency diseases like marasmus and kwashiorkor are caused in children etc.

(iii) Proteins are used to make our body cells. Specifically, they are used in the formation of new protoplasm. Antibodies, enzymes, and hormones are also made of proteins.

(iv) A balanced diet comprises carbohydrates, Vitamins, Proteins, Minerals, Fats, etc.

OR

Anorexia nervosa is an eating disorder.

30. Read the text carefully and answer the questions:

While organizing sports events for the Annual Sports Day, Arjun and Ravi being the captain and vice captain of sports, formed various committees as shown below.



(i) The reception committee is that committee that looks after the welcoming of guests and spectators. It is required throughout the event but majorly in the opening and closing ceremony of the sports event.

(ii) Publicity committee

Announcement of venue, data and events are decided by the publicity committee. It is a pre-meet committee that fixes the important aspects of the event.

(iii) Both planning and forming committees

The organisation and conducting of a sports event depends upon planning and forming of committees. In planning, entire plan about how to conduct a sports event is done.

(iv) The administrative director is the head who organises a sports meet therefore entire responsibility for success of competition to the person in that post.

OR

From the given option, team no. 10 is not a seeded team. Seeded teams do not play the match in the initial rounds of a tournament.

31. Read the text carefully and answer the questions:

Posture plays a very significant role in our daily activities. Correct posture means the balancing of body in accurate and proper manner. Various types of postural deformities can be identified in individuals.



(i) The deformities seen on the left most is caused due to the deficiency of calcium and vitamin D. This deformity is known as bow-legged.

(ii) Bow legs

Walking on the inner edge of the feet can be a remedy for bow legs.

(iii) Knock knees

The person in middle is suffering from knock knees.

(iv) Horse riding is the best exercise for treating knock knees deformity.

Section E

32. Trikonasana (Triangle Pose) and Vajrasana (Thunderbolt Pose) are yoga asanas that can help prevent obesity.

Trikonasana involves standing with legs wide apart, extending one arm to touch the opposite foot, and stretching the other arm upward. Vajrasana involves kneeling on the floor with the back straight and sitting on the heels.

Benefits of Trikonasana and Vajrasana include strengthening the abdominal muscles, improving digestion, increasing metabolism, and promoting overall weight loss. These asanas also help tone the muscles, improve flexibility, and enhance posture.

Contraindications for Trikonasana include recent or chronic injury to the spine, hips, or shoulders, as well as high blood pressure or migraine. Vajrasana is generally safe for most individuals, but it may be uncomfortable for those with knee or ankle injuries or those who have difficulty kneeling.

It's important to note that while these asanas can be beneficial for weight management, a comprehensive approach to preventing obesity should include a balanced diet, regular exercise, and overall healthy lifestyle habits. Consulting with a qualified yoga instructor or healthcare professional is recommended before starting any new exercise regimen.

33. **Inclusion in sports-** Inclusion in sports refers that, all children are differently abled, have the right to get respect inside and outside the school premises, they were appreciated to participate in all the activities which were organized by the schools and also interact or communicate with all the other peers to create the friendly environment or friendship with others.

Inclusion in sports helps students with differently abled in many ways-

- i. Help them to develop their motor skills.
- ii. Help them to create social networks.
- iii. They feel motivated.

Inclusion in sports also helps the students who are not disabled-

- i. They were able to understand true friendship.
- ii. Improve academic results.
- iii. Quality of brotherhood increase.

34. Speed is the rate of motion, or the rate of change of position. It is expressed as distance moved per unit of time. Speed is measured in the same physical units of measurement as velocity. Speed is defined as the ability of an individual to perform similar movements consecutively at Fastest rate, e.g., short distance races like 100 metres and

200 metres. Speed as the capacity of an individual to perform successive movement of the same pattern at a fast rate.

Types of Speed:

- 1) Movement speed: It is the ability to do a movement in minimum time. It depends upon technique, explosive strength, flexibility and coordinative abilities.
- 2) Locomotor ability: It is the ability to maintain maximum speed for a maximum time or distance. Events like 100mt, 200 mt, 400mt requires this ability.
- 3) Speed Endurance: Speed endurance is the ability to perform movements with high speed under conditions of fatigue. This depends upon technique, local muscular endurance and lactic acid tolerance ability.

Methods for improving speed.

- 1) Acceleration runs- It is the ability to increase speed from jogging to running and finally sprinting. It depends on explosive strength, frequency of movement & technique. To attain maximum speed from a stationary position this is practised after learning proper technique.
- 2) pace run or races- A competitive pace race is a timed race in which the objective is not to finish in the least time, but to finish within the prescribed time and in the best physical condition. In some races, the prescribed time is very narrowly defined and the winner is the competitor who finishes closest to the prescribed time. Complete recovery is ensured between two repetitions. This means to running the whole distance of a race at a constant speed. In this the athlete runs the race with uniform speed.