



BK BIRLA CENTRE FOR EDUCATION
SARALA BIRLA GROUP OF SCHOOLS
SENIOR SECONDARY CO-ED DAY CUM BOYS' RESIDENTIAL SCHOOL



PRE BOARD – 3 (AS)

PHYSICAL EDUCATION (048) SET-2

Class : XII Sci/Com/Hum

Date : 17/01/2025

Admission No.:

Duration: 3 Hrs

Max. Marks: 70

Roll No.:

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 19-24 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 25-30 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 31-33 carrying 4 marks each and are case studies. There is internal choice available.
6. Sections E consists of Question 34-37 carrying 5 marks each and are long answer types and should not exceed 200-300 words. Attempt any 3

(SECTION – A)

1. Which of the following organizations helps promoting adaptive sports? 1
a. Special Olympics b. Deaflympics
c. Paralympics d. All of these
2. Assertion (A) Risk of cancer can be reduced by eating more colourful vegetables, fruits and other plant foods that have certain photochemical in them.

Reason (R) Non-nutritive components of diet is a part of balanced diet. 1

In the context of above two statements, which one of the following is correct?
Codes:
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
3. While exercising on a multigym, the type of muscular contraction that occurs is _____. 1
a. Isotonic b. Isometric
c. Isokinetic d. Eccentric
4. What is the formula to determine number of matches in league fixture for even number of teams? 1
a. $N + \frac{1}{2}$ b. $N - \frac{1}{2}$
c. $N(N - 1)/2$ d. $N(N + 1)/2$
5. Which one of the following asanas is not a remedial asana for treating obesity? 1
a. Vajrasana b. Tadasana
c. Trikonasana d. Ardha Matseyendrasana

6. In which year the International Paralympic Committee was founded? 1
 a. 22nd September, 1989 b. 22nd September, 1990
 c. 20th September, 1989 d. 20th September, 1992
7. Ankit lives with his grandfather who is 65 years old and leads a sedentary lifestyle. Ankit is worried about his health. He would like to test his grandfather's functional fitness. Which test should Ankit administrate to check his grandfather's lower body flexibility? 1
 a. Chair stand test
 b. Arm curl test
 c. Back scratch test
 d. Chair sit and reach test
8. The behavior expressed out with intention of harming other person is known as _____. 1
 a. Stress b. Motivation
 c. Aggression d. Tension
9. In which type of Menstrual Dysfunction, light or infrequent menstruation is witnessed by the woman? 1
 a. Pre Menstrual Syndrome b. Amenorrhea
 c. Oligomenorrhea d. Premenstrual Dysphonic Disorder
10. Assertion (A) "A change in the acceleration of an object is directly proportional to the force producing it and inversely proportional to its mass."
 Reason (R) Lighter mass will travel at a faster speed. 1
- Codes:
 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. The purpose of push ups is to measure the _____. 1
 a. Lower body strength b. Upper body strength & endurance
 c. Endurance d. All of the above
12. Which of this is not a function of sporting event management? 1
 a. Creating a Manager b. Selection of Staff
 c. Organizing d. Directing to members
13. Assertion (A) Person suffering from slipdisc can practice Katichakrasana.
 Reason (R) Katichakrasana helps to relieve back pain 1
- Codes:
 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
14. Sprain is an injury of the _____. 1
 a. Muscle b. Ligament
 c. Joint d. Bone

15. Newton's which law states that every object will remain at rest or in motion until any external force is applied? 1

- a. Newton's first law of motion b. Newton's second law of motion
c. Newton's third law of motion d. Both (a) and (b)

16. In bow-legs, there is/are _____. 1

- a. wide gap between the knees
b. plain foot sole
c. knees colliding with each other
d. both legs curving inwards

17. It is the fracture which occurs when a bone bends and cracks, instead of breaking completely into separate pieces. 1

- a. Transverse b. Comminuted
c. Greenstick d. Impacted

18. Match the following postural deformities with their corrective Asanas: 1

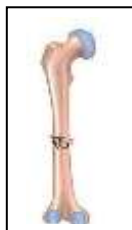
List – 1 (Type of Endurance)		List – 2 (Examples)	
A.	Short-term Endurance	i.	Marathon
B.	Speed Endurance	ii.	400 M Sprint race
C.	Medium-term Endurance	iii.	800 M race
D.	Long-term Endurance	iv.	1500 M race

	A	B	C	D
a.	(iii)	(ii)	(iv)	(i)
b.	(iii)	(iv)	(ii)	(i)
c.	(iv)	(iii)	(i)	(ii)
d.	(i)	(ii)	(iii)	(iv)

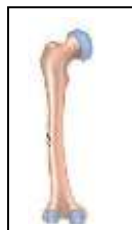
(SECTION – B)

19. Identify the bone fracture and give their name 2

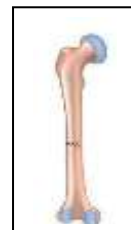
(i)



(ii)



(iii)



Ans: (i) Comminuted Fracture (ii) Greenstick Fracture (iii) Transverse Fracture

20. What do you mean by Bulimia? 2

Ans: Bulimia is a type of eating disorder in which the affected person will eat a large amount of food in a short time and then do something to get rid of the food. They may vomit, exercise too much or use laxatives.

21. Write any two benefits of the Gomukhasana. 2
Ans: The two benefits of Gomukhasana are as follows:
a. It is helpful in curing sciatica.
b. It enhances the functioning of the kidneys by stimulating it, thus helping those suffering from diabetes.
22. What is sports psychology? 2
Ans: Sports psychology is that branch of psychology which refers to the study of human behavior on the playfield, both under-practice and competitive situations, with a view to bring about qualitative improvement in performance and maintain the same even during the stress of competition.
23. Define explosive strength with help of example. 2
Ans: Explosive strength is the ability to exert maximal force in minimal time. It involves heavy loading in shorter high speed movements for a few repetitions with long rest period between them. It is a ability to overcome resistance with high speed.
24. What are carbohydrates? 2
Ans: Carbohydrates are compounds of carbon, hydrogen and oxygen. The main function of carbohydrates is to provide energy for the body, brain and nervous system.

(SECTION – C)

25. Briefly write about Special Olympic symbol and Olympic flame. 3
Ans: The Special Olympic symbol (logo) is based on the sculpture “Joy and Happiness to all Children of the World”.
The logo is a symbol of growth, confidence and joy among children and adult with disabilities who are learning coordination, mastery skill, participating in competitions and preparing themselves for richer and more productive lives.
Its Olympic flame is known as the ‘Flame of Hope’. It is carried to and lit at Special Olympic games. It is used in the same spirit as the Olympic flame in the Olympic Games.
26. Write a short note on equilibrium. 3
Ans: Equilibrium can be defined as a state of balancing among forces acting within or upon a body. In other words, it is a state in which all influences, forces are cancelled or counterbalanced by each other, i.e. the sum of all forces acting should be zero.
Equilibrium, thus, can be called as a scientific term for balance and stability.
The equilibrium of a human body is directly related to the body surface. If the body surface is greater, there will be greater stability and balance. In simple words, sitting posture is easier and comfortable due to greater body surface as compared to standing posture.
There are two types of equilibrium:
➤ Dynamic Equilibrium: It is a state of balance of all applied forces acting on a moving body. In other words, the body in motion is stable such that it has unchanging speed and direction.
➤ Static Equilibrium: It is the state of balance that occurs when the body is at rest or a motionless position.

27. Draw a fixture of 11 cricket teams participating in a tournament on the basis of knock-out. 3

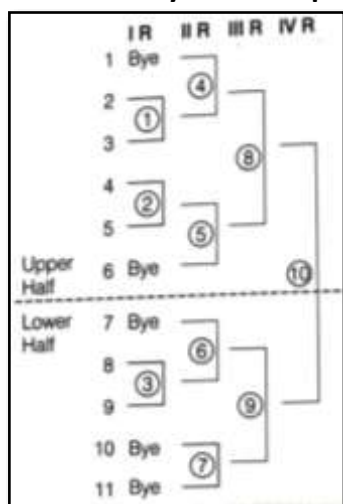
Ans: Total number of teams = 11

- Total number of matches = $N - 1 = 11 - 1 = 10$

- Teams in upper half = $N + 1 = \frac{11 + 1}{2} = 6$

- Teams in lower half = $N - 1 = \frac{11 - 1}{2} = 5$

- Number of byes = Next power of two – Total number of teams: $16 - 11 = 5$



28. What are the types of aggression? 3

Ans: There are three types of aggression in sports:

- Instrumental Aggression:** The main aim is to achieve a goal by using aggression. For example, footballer using aggressions to tackle his opponent by high intensity play without harming anyone.
- Hostile Aggression:** The main aim is to cause harm or injury to the opponent. It is usually unplanned, impulsive reaction. For example, a bowler throwing a bouncer to deliberately injure the batsman.
- Assertive Behaviour:** It is also referred as assertive aggression. It is generally seen as a positive form of aggression. In ground, it simply means to stand up for your values in an unthreatening manner, and involves the use of legitimate physical or verbal force to achieve one's goals.

29. What is obesity? Is it a disease? Explain your answer. 3

Ans: Obesity is referred to medical condition in which excess body fat is accumulated to the extent that it has a negative effect on health. Obesity in itself is not a disease but the condition of obesity leads to many diseases.

This is because a person becomes extremely fat and the organs, glands, organ systems cannot function properly.

When the does not function properly, then it gives birth to many diseases like diabetes, hypertension, cardiovascular diseases etc.

30. Explain the purpose and procedure of Plate Tapping Test.

3

Ans: Purpose of Plate Tapping Test is to measure speed and coordination of limb movement of children.

Procedure:

- If possible, the table height should be adjusted so that the subject is standing comfortably in front of the discs. The two yellow discs are placed with their centers 60 cm apart on the table. The rectangle is placed equidistant between both discs.
- The non-preferred hand is placed on the rectangle. The subject moves the preferred hand back and forth between the discs over the hand in the middle as quickly as possible.
- The action is repeated for 25 full cycles (50 taps).

(SECTION – D)

31. Vikas a state level wrestler has been advised by his coach to take adequate amounts of simple carbohydrates, vitamins, minerals and proteins in his diet along with the training schedule. He has also been advised to follow the diet plan and be aware of the drawbacks if unsupervised dieting.

Q1. Glucose, Fructose, Lactose are _____.

- a. Simple carbohydrate
- b. Complex carbohydrate
- c. Minerals
- d. Fats

Q2. Which amongst these is a pitfall of dieting?

- a. Skipping meal
- b. Reducing energy food
- c. Drinking lot of water
- d. Taking food supplements

Q3. Amino acids and protein are the _____ of life.

- a. Building block
- b. Training blocks
- c. Fitness blocks
- d. Both (a) and (b)

32. Mahesh, Physical Education Teacher at XYZ School observed that Raju a student of Class VI has outward curve of vertebral column at thoracic region. He suggested some exercises to rectify this problem.

4

Q1. What is this deformity known as?

- a. Scoliosis
- b. Kyphosis
- c. Lordosis
- d. Flat foot

Q2. Kyphosis is commonly known as

- a. Hollow back
- b. Hunch back
- c. Sideways bending
- d. Lordosis

Q3. Kyphosis is a deformity related to

- a. Foot
- b. Vertebral column
- c. Shoulder
- d. Legs

33. Early morning, we observe many older people following fitness regime. One day Ramu observed a 60 year old man was holding his chest on the ground. When Ramu approached him, he said that he felt chest pain regularly after jogging.

4

Q1. What is the rate of normal heart beat of an adult?

- a. 72
- b. 80
- c. 65
- d. 90

Q2. Age and gender play a very important role in which of these components?

- a. Endurance
- b. Strength
- c. Explosive Strength
- d. Speed

Q3. Muscular strength starts receding during the age of

- a. 25-30 years
- b. 35-40 years
- c. 45-50 years
- d. 50-55 years

(SECTION – E)

34. Suggest the formation of various committees for systematic and smooth conduct of sports day in your school. 5

Ans: For the systematic and smooth conduct of sports day in the school, following committees are suggested:

- i. **Ground and Equipment Committee:** This committee prepares the ground as well as the equipment needed for various events. It is very important for systematic conduct of sports day.
- ii. **Committee for Officials:** This committee selects the officials required in various events such as umpires, referees, recorders, clerks, timekeepers etc for athletic meet and other events. This committee is also essential for the smooth running of the events.
- iii. **Entertainment and Refreshment Committee:** This committee will take the charge of receiving the guests, arrange the entire programme schedule of sports day and supply the refreshments.
- iv. **Announcement Committee:** This committee makes different announcements regarding different events and the announcements in opening and closing ceremonies.
- v. **Award Committee:** This committee takes care of the awards that are given to the participants and decides upon the medals, trophies and certificates.

In these, five committees will serve as five different heads or departments that will ensure the systematic and smooth conduct of sports day in school.

35. Discuss about 'Deaflympics' in detail. 5

Ans: Deaflympics are the world's second oldest multiple sports after Olympics. The Deaflympics are an International Olympic Committee sanctioned event at which deaf athletes compete at an international level. The Deaflympics games are held after every four years. The first Deaflympics Games were held in Paris in 1924. In that Deaflympics, only 148 deaf athletes from nine European countries participated.

From 1924 – 1965, these games were officially known as the 'International Games for the Deaf'. From 1966 – 1999, they were called 'World Games for the Deaf'. Since 2001, these games are known as 'Deaflympics'.

In Deaflympics the starter's gun, bullhorn commands or referee's whistle are not used, rather flags or any visual signals are used to alert participants.

The motto of Deaflympics is 'Equality through sports'. The four colors of the logo i.e. red, green, yellow and blue represent the four regional confederations of the International Committee of Sports for the Deaf viz. Europe, Asia Pacific, Pan-America and Africa. The circle in the middle represents an eye as deaf people are very visual.

The athletes, to compete in Deaflympics, must have a hearing loss of minimum 55 decibel in their better ear.

So, it can be said the Deaflympics provide ample opportunities to persons with hearing disability to participate in elite sports.

36. Explain purpose, equipments required and procedure of Flamingo Balance Test. 5

Ans: Purpose, equipments required and procedure of Flamingo Balance Test are given below:

Purpose: Flamingo Balance Test measures ability to balance successfully on a single leg. This single leg balance test assesses the strength of the leg, pelvic and trunk muscle as well as static balance.

Equipment Required:

- Non-Slippery even surface
- Stopwatch
- Can be done on just standing on beam

Procedure:

- Stand on the beam. Keep balance by holding the instructor's hand (if required to start).
- While balancing on the preferred leg, the free leg is flexed at the knee and the foot of this leg held close to the buttocks.
- Start the watch as the instructor let go of the participant/subject.
- Pause the stopwatch each time the subject loses balance (either by falling off the beam or letting go of the foot being held).
- Resume over, again timing until they lose balance. Count the number of falls in 60 seconds of balancing.
- If there are more than 15 falls in the first 30 seconds, the test is terminated.

Administrative Suggestion: Participants should be encouraged to eyes focused on stationary object straight ahead.

37. Briefly explain the administration of Pawanmuktasana along with its contraindications and draw stick diagram. 5

Ans: The administration of Pawanmuktasana is:

- Lie on your back with your feet together and arms besides your body and relax, breathing deeply.
- With a deep inhalation raise your legs to 90° and completely exhale.
- Now with another inhalation bring both the knees close to your chest and press on the lower abdomen, holding the knees with your hands. Exhale completely.
- Remain with bent knees for a few breaths. With every exhalation press the thighs and knees on the abdomen and hold them with your hands.
- With a deep breath raise your head, neck and chest and bring them close to your knees.
- Remain in this position for a few breaths focusing on maintaining the position of the head and neck in place.
- Try to maintain the balance while breathing slowly and keeping the body relaxed.
- Now with an inhalation, release the neck and head and exhale completely. With another inhalation straighten the legs and bring them back to 90° and as you exhale release the leg from 90° to the relaxed posture. With complete exhalation, bring the legs stretched out on the floor and relax the neck.
- Take a few breaths, and then continue with the next round. The longer you hold in this posture the faster the muscles around the abdomen loosen.
- Contraindications of Pawanmuktasana is that it is to avoided by those who are suffering from severe migraine, high or low blood pressure, asthma, slip disc, advanced stages of spondylitis, etc.



Pawanmuktasana
