



# BK BIRLA CENTRE FOR EDUCATION

SARALA BIRLA GROUP OF SCHOOLS  
SENIOR SECONDARY| CO-ED DAY CUM BOYS' RESIDENTIAL SCHOOL

MID-TERM EXAMINATION 2023-24

PHYSICAL EDUCATION (048)



Class : XII Sci/Com/Hum

Date : 16/10/2023

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 short answer types and should not exceed 200-300 words. Attempt any 3

### Section-A

*Section A consists of Multiple Choice Type questions of 1 mark each*

1. Where the first Special was Olympic Games held in 1968? (1)  
a. Shanghai                      b. Los Angeles                      c. **Chicago**                      d. New Haven
2. What is the formula to divide an odd number of teams in the upper half for a knock-out fixture? (1)  
a.  **$N+1/2$**                       b.  $N-1/2$                       c.  $N(N-1)/2$                       d.  $N(N+1)/2$
3. Which asana is helpful in maintaining normal blood pressure? (1)  
a. **Shavasana**                      b. Padmasana                      c. Shalabhasana                      d. Vakrasana
4. Scoliosis is a postural deformity related with (1)  
a. Foot                      b. Leg                      c. **Vertebral column**                      d. Hand
5. Trikonasana helps to cure which lifestyle disease? (1)  
a. Hypertension                      b. Back pain                      c. **Diabetes**                      d. Obesity
6. In a knock-out tournament 4<sup>th</sup> Bye will be given to: (1)  
a. Last team of Lower half  
b. **Last team of Upper half**  
c. First team of Upper half  
d. First team of Lower half
7. Which hormone is related with the problem of diabetes? (1)  
a. **Insulin**                      b. Calcitonin                      c. Oxytocin                      d. Estrogens
8. Seeding is decided on the basis of: (1)  
a. **Previous performance**                      b. Future performance  
c. Current performance                      d. Bad performance

9. Menarche is defined as the: (1)
- Ending of menstrual period in women
  - Beginning of menstrual period in women**
  - Time of pregnancy
  - Beginning of pregnancy
10. Which type of instructional strategies must be used for performing various types of physical activities for Children with special needs? (1)
- Verbal
  - Visual
  - Peer teaching
  - All of these**
11. International Yoga Day is celebrated on: (1)
- 21<sup>st</sup> June**
  - 21<sup>st</sup> May
  - 21<sup>st</sup> March
  - 21<sup>st</sup> July
12. Balance diet consists high sources of \_\_\_\_\_. (1)
- Proteins
  - Fruits
  - Fats
  - All the components in balanced form**
13. Which country hosted summer Deaflympics in 1939? (1)
- United States
  - Italy
  - Sweden**
  - Austria
14. Bye is given when \_\_\_\_\_. (1)
- There are large number of teams
  - League tournament
  - Advantage of not to playing first round**
  - There are odd number of teams
15. The richest source of protein is: (1)
- Pulses
  - Groundnut
  - Soybeans**
  - Egg
16. What is the right term that should be used for children with Special needs? (1)
- Viklang
  - Divyang**
  - Differently abled
  - All of the above
17. In which kind of deformity, the gap between ankles goes on increasing and an individual faces difficulty during walking and running? (1)
- Bow legs
  - Knock knee**
  - Flat foot
  - Scoliosis
18. Deficiency of which vitamin causes night blindness? (1)
- Vitamin A**
  - Vitamin B
  - Vitamin C
  - Vitamin D

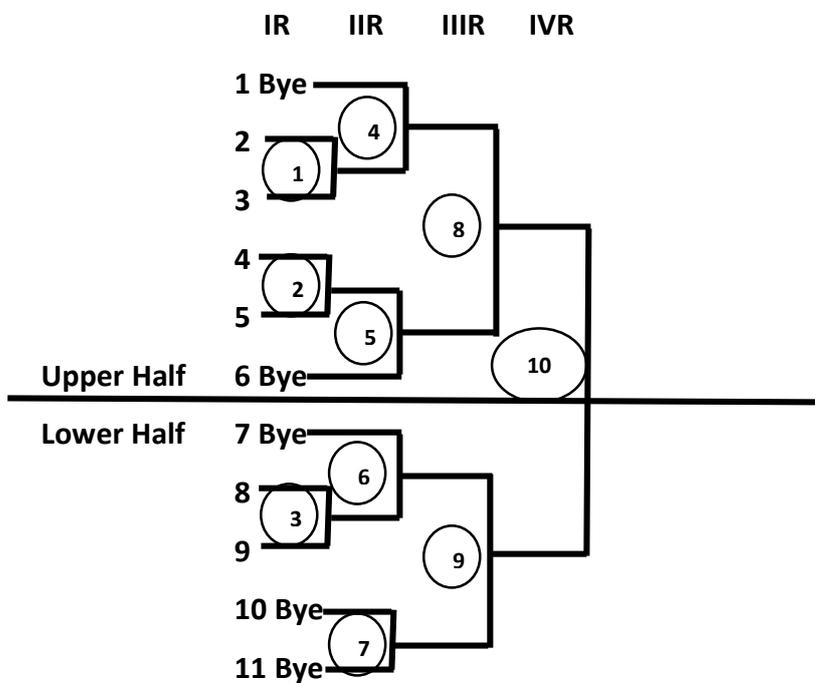
### Section-B

*Section B consists of 6 questions of 2 marks each*

19. Draw a fixture of 11 basketball teams participating in a tournament on the basis of knock-out. (2)

**Ans:** Total number of teams = 11

- Total number of matches =  $N - 1$   
 $= 11 - 1 = 10$
- Teams in upper half =  $\frac{N + 1}{2} = \frac{11 + 1}{2} = 6$
- Teams in lower half =  $\frac{N - 1}{2} = \frac{11 - 1}{2} = 5$
- Number of byes = Next power of two – Total number of teams  
 $= 16 - 11 = 5$



20. How can physical activities be corrective measures for common postural deformities? (2)

**Ans:** Physical activities can greatly help in correcting common postural deformities. Physical activities done in the form of exercises, games or sports increase energy and the efficiency to do work. More energy means perfection in the tasks performed. This ensures proper alignment of the body. This also increases flexibility of the body as bones and muscles remain well-toned. The muscles remain in proper position. The spine and bones remain healthy. This greatly reduces the chances of any type of common postural deformity.

21. Write ways to prevent diabetes. (2)

**Ans:** The ways to prevent diabetes are:

- Reduce the consumption of white bread, rice, processed food, sugary drinks, jam, jelly etc.
- Eat whole grains like brown rice, oatmeal, millets, vegetables and fruits.
- Do physical exercises that include asanas like Katchakrasana, yog. Mudrasana and Kapalbhathi.

22. What is osteoporosis? (2)

**Ans:** Osteoporosis is a weakening of the bones due to the loss of bone density and improper bone formation. This condition can ruin a female athlete's career because it may lead to bone fractures and other injuries.

23. What are the uses of any two minerals in our diet? (2)

**Ans:**

- a. **Iodine:** It is essential for proper thyroid function. Its deficiency causes goitre and sources are seafood and salt.
- b. **Calcium:** It is helpful in the formation of teeth and bones. It helps in clotting of blood. Its deficiency causes rickets and asthma. Milk, cheese, oranges and green vegetables have a rich amount of calcium.
- c. **Phosphorus:** It is required for the development of strong bones and teeth and also help in synthesising energy from food.

24. What is Paralympics? Briefly explain its importance. (2)

**Ans:** The Paralympic Games are major international multi-sports event involving athletes with various disabilities such as impaired muscle power, impaired passive range of movement, limb deficiency, leg-length difference short stature, hypertonia, ataxia, athetosis, visual and intellectual impairment, blindness, etc.

**Section-C**

**Section C consists of 6 questions of 3 marks each**

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

**(3)**

**Ans: The procedure of Bhujangasana is:**

- This is done in lying posture
- Lie on the stomach and rest forehead on the floor.
- Keep the feet and toes together and touch the ground.
- Place the hands at shoulder level and palms on floor.
- Inhale and lift the head, chest and abdomen up towards roof and keep the naval on the floor.
- Pull your torso back and off the floor with support of your hands.

**The advantages of Bhujangasana are:**

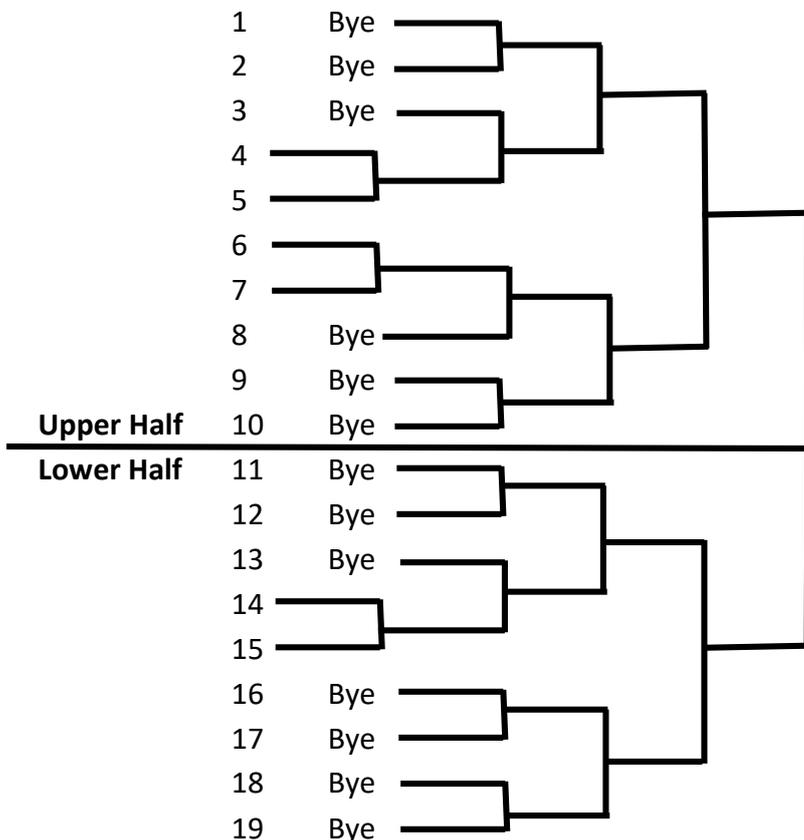
- It improves the blood circulation in body.
- It decreases menstrual irregularities in females.
- It strengthens muscles of chest, shoulders, arms and abdomen.
- It is effective in urine disorder.
- It improves the functioning of reproductive organ.
- It improves the function of liver, kidney, pancreas and gall bladder.
- It helps to lose weight.

26. Draw a knock-out fixture for 19 teams, mentioning all the steps involved.

**(3)**

**Ans:** The total number of matches to be played in this tournament will be equal to the numbers of teams participating minus one (N-1). So, the total number of matches 19-1=18.

- No. of byes = Next power of two – Number of team = 32 – 19 = 13
- No. of teams upper half  $\frac{N + 1}{2} = \frac{19 + 1}{2} = 10$
- No. of teams lower half  $\frac{N - 1}{2} = \frac{19 - 1}{2} = 9$
- A fixture of 19 teams on knock-out basis is as follows:



27. Write about the deformities of spinal curvature. (3)

**Ans: There are three types of spinal curvature:**

- Lordosis:** It is the inward curvature of the spine or a deformity of spinal curvature. It is an increased forward curve in the lumbar region. It creates problems in standing and walking.
- Kyphosis:** It is a deformity of the spinal curvature in which there is an increase or exaggeration of a backward curve or a decrease of a forward curve. It is also called as round upper back.
- Scoliosis:** It is an abnormal curvature of the spine. It is a sideways curvature of the spine that occurs most often during the growth spurt before puberty.

28. What do you mean by balanced diet and nutrition? Explain. (3)

**Ans: Balanced Diet:** A balanced diet is that which contains the proper amount of each nutrient. A balanced diet consists of all essential food constituents i.e. protein, carbohydrates, fats, vitamins and minerals in correct proportion.

**Salient features of balanced diet are as follows:**

- A balanced diet must contain all the essential constituents in adequate amount.
- There must be definite proportion between the different constituents of food.
- The food should be easily digestible.

**Nutrition:** It is a dynamic process in which the body is made healthy by the consumption of food. It is the essential substances or the chemical compositions present in the food that are essential for the growth and replacement of tissues. If a person takes proper nutrition, he/she will be physically fit and healthy.

29. Discuss in detail about Paralympic Games. (3)

**Ans:** The Paralympic Games are a major international sports event involving athletes with various disabilities such as mobility disabilities, amputations, blindness and cerebral palsy.

The originator of the Paralympic Games is Sir Ludwig Guttman. He started Paralympic movement that finally developed into Paralympic Games.

The Paralympic Games are governed by the International Paralympic Committee who holds the responsibility of organising the games at an interval of four years. It organises both summer and winter Olympics.

The first Paralympic Games were held in Rome in 1960. However, the 'Paralympic' word was officially used in 1988 Summer Olympics, which were held in Seoul.

The motto of Paralympic Games is 'Spirit in motion' which was introduced in 2004 at the Paralympic Games Athens. Its earlier motto was 'Mind, Body and Spirit' which was introduced in 1994.

The Paralympic Games are truly inspirational as the athletes in these games display great determination and courage to overcome mental and physical obstacles.

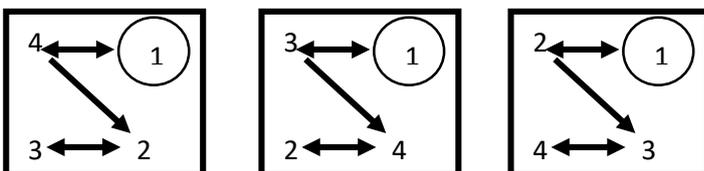
30. Explain cyclic method of league tournament for 4 teams. (3)

**Ans:** In this method, one team is kept fixed and other teams are moved clockwise. When the number of teams is even, no bye is given, but if the number of teams is odd, one bye is given in each round.

Total number of matches for 4 teams

$$= \frac{N(N-1)}{2} = \frac{4(4-1)}{2} = \frac{4 \times 3}{2} = \frac{12}{2} = 6 \text{ (2 matches in each round)}$$

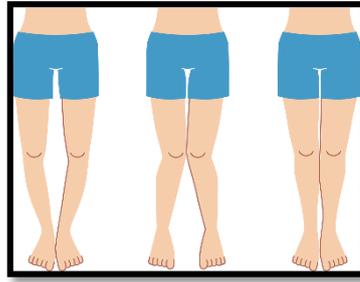
Where team 1 is fixed



Section-B

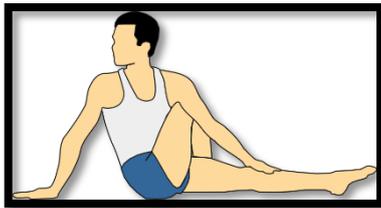
Section D consists of 3 case based questions of 4 marks each

31. 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. (4)

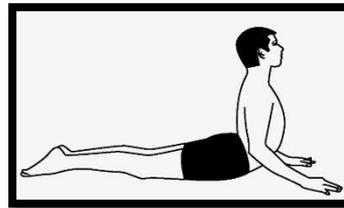


- i. From the above given picture, the deformities seen on the left most is caused due to deficiency of \_\_\_\_\_.
- a. Iron                      b. Calcium                      c. Vitamin D                      d. Both (b) and (c)
- ii. Walking on the inner edge of the feet can be a remedy for \_\_\_\_\_.
- a. Bow legs                      b. Flat foot                      c. Overweight                      d. Leg deformity
- iii. The person in the middle is suffering with \_\_\_\_\_.
- a. Rickets                      b. Flat foot                      c. Knock knees                      d. Elephant foot

32. Identify the below given asanas and write the name. (4)



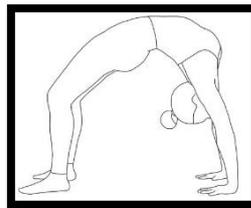
a.



b.



c.



d.

Ans: a. Vakrasana                      b. Bhujangasana                      c. Padmasana                      d. Chakrasana

33. School management needs to recognize the essential place of physical activity in the education of children with special needs. In order to develop lifelong habits for fitness and to provide them with many opportunities of socialization, schools need to understand that physical education is not a secondary subject, but it is just as important as other skills. (4)

- i. Which of these is not one of the results of physical activities in children with special needs?
- a. Improvement in confidence  
b. Improvement in endurance  
c. Increase in depression  
d. Better hand-eye coordination
- ii. Match the following

A.	Cognitive	i.	Disorder
B.	OCD	ii.	Improvement techniques
C.	Physical activities	iii.	Disability
D.	Competition in sports and games for CWSN	iv.	Paralympics

Codes:

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

- iii. Name the model which refers to bringing students with disabilities and students of general education into the same platform of learning.
- Inclusive education**
  - UNESCO
  - Child Rights and You
  - Child Rights International Network

### Section-E

*Section E consists of 4 questions of 5 marks each*

34. Vitamins are very essential for working of the body and are divided into two groups. Explain about them. (5)

**Ans:** There are two groups of vitamins

- Fat Soluble Vitamins:** The fat soluble vitamins are those vitamins which are soluble in fat. These include Vitamins A, D, E and K stored in the liver and in body fat.
  - **Vitamin A:** It is also known as retinol. This is essential for normal growth of the body and development of eyes and skin. Deficiency of Vitamin A leads to night blindness and also affects the kidneys, nervous system and digestive system.
  - **Vitamin D:** This is essential for the formation of healthy teeth and bones. The presence of this vitamin in the body enables it to absorb calcium and phosphorus. It maintains the normal functioning of parathormone, the hormone secreted by parathyroid gland. Its deficiency causes rickets, softness of bones and teeth diseases.
  - **Vitamin E:** This is essential in increasing the fertility among men and women as well as proper functioning of adrenal and sex glands. Its deficiency causes weakness in muscles and heart.
  - **Vitamin K:** This is helpful in the clotting of blood. Its deficiency may cause anaemia and blood do not clot easily.
- Water Soluble Vitamins:** The vitamins that are composed of nitrogen, sulphur and are soluble in water, such as Vitamin B-complex, Vitamin C.
  - **Vitamin B Complex:** There are 8 vitamins in this group. It includes B1, B2, B3, B5, B6, B7, B9 and B12. They are necessary for growth, proper functioning of heart, liver, kidney and maintains smooth skin. Its deficiency causes Beri-Beri disease, Pellagra and also decreases immunity.
  - **Vitamin B1 (Thiamin):** This vitamin is also called thiamine and it is colourless in nature. It helps in growth and development of body. It also play significant role in the assimilation of Vitamin A and synthesis of carbohydrate in our body. It's deficiency causes Beri-Beri.

- **Vitamin B2 (Riboflavin):** It is also referred as riboflavin. It is essential to keep the eyes, nose, mouth, lips and tongue in healthy states. It's deficiency causes Pellagra.
- **Vitamin B3 (Niacin):** Vitamin B3 or Niacin works with other B-complex vitamins to metabolise food and provide energy for the body. It is involved in energy production, normal enzyme functioning, digestion, promoting normal appetite and healthy skin.
- **Vitamin B5 (Panthothenic acid):** It is also called panthothenic acid. It helps in breakdown of fats and carbohydrates to release energy.
- **Vitamin B6 (Pyridoxine):** Vitamin B6 is a key factor in protein and glucose metabolism as well as in the formation of haemoglobin. Haemoglobin is a component of red blood cells-it carries oxygen.
- **Vitamin B7 (Biotin):** It is also known as biotin. It's deficiency may lead to impaired growth, depression, muscle strain, etc.
- **Vitamin B9 (Folic Acid):** It's chemical name is folic acid. It is yellow in colour and is essential for the normal growth and development of the reproductive system.
- **Vitamin B12 (Cobalamin):** It is also known as cobalamin, aids in the building of genetic material, production of normal red blood cells and maintenance of the nervous system.
- **Vitamin C:** It is also called ascorbic acid. It is needed for proper growth, development and to heal wounds. It is used to make the collagen tissue for healthy teeth, gums, blood vessels and bones.

35. Describe the various committees for the organisation of sports events. (5)

**Ans:** The organisation of sports events requires a lot of planning. The planning is executed properly when different committees work together for the smooth conduct of the sports events.

The various committees are:

- **Reception Committee:** The task of this committee is to welcome the Chief Guest along with other guests, players, spectators, etc.
- **Committee for Officials:** This committee selects various officials such as referees, judges, recorders, clerks, marshals, track umpires, time keepers and lap scorers for athletic meet and other events as per requirements.
- **Finance Committee:** This committee manages the finance needed for the event. It prepares the budget, arranges funds and maintain income and expenditure account.
- **Transport Committee:** This committee provides the transportation services to the participants for taking them to the venue to and fro.
- **Entertainment and Refreshment Committee:** This committee takes the charge of supplying refreshments and drinks to the guests, officials, competitors etc. It also makes arrangements for entertainment programmes at the opening and closing ceremony of sports events.

36. Explain five strategies to make physical activities accessible for children with special needs. (5)

**Ans:** The five strategies to make physical activities accessible for children with special needs are as follows:

- a. **Medical Check-up:** If we want to make physical activities accessible for the children with special needs, we need to understand the type of disabilities of children and for this purpose complete medical check-up of the children is required.
- b. **Assistive Technology:** It refers to creating devices, tools or equipment's that help children with special needs to participate in learning activities like bigger balls, balls with bells, balls attaches to strings etc. This kind of new technology makes physical activities accessible for children with special needs.
- c. **Adaptive Physical Education:** Adaptive Physical Education means developing, implementing and monitoring a carefully designed physical education instructional programme for a learner with a disability.

- d. **Creating Specific Environment:** this means making a friendly atmosphere by keeping in mind the specific needs of the children with disability. In this way, it shows that they are also wanted in society and like others children of their age, they can also play.
- e. **Activities based on Interests:** Physical activities must be based on interest, aptitudes, abilities, previous experience and limitations of children with special needs, the teachers of physical education should have deep knowledge of limitations, interests and aptitudes of children.

37. Explain the contraindications of Halasana, Ardh Matsyendrasana and Urdhva Hastasana. (5)

**Ans: Contraindications of Halasana are:**

- ❖ It should be avoided by those having neck pain, spondylosis and high blood pressure should not practice this yoga pose.
- ❖ It should be avoided by pregnant women.

**Contraindications of Ardh Matsyendrasana are:**

- Avoid during pregnancy and menstruation due to the strong twist in the abdomen.
- People with heart, abdominal or brain surgeries should avoid this asana.
- Those who are having peptic ulcer or hernia should avoid it.
- Those with sever spinal problems should avoid.
- Those with mild slipped disc can do it but in severe cases it should be avoided.

**Contraindications of Urdhva Hastasana are:**

- Avoid in case of shoulder or neck injuries.
- Avoid, if experiencing dizziness while staring upwards and in case of any other medical concerns.