



B.K. BIRLA CENTRE FOR EDUCATION

SARALA BIRLA GROUP OF SCHOOLS
A CBSE DAY-CUM-BOYS' RESIDENTIAL SCHOOL

MID-TERM EXAMINATION 2025-26

PHYSICAL EDUCATION-048 SET-1 (Marking Scheme)

Class: XII A & B
Date: XX/XX/2026

Duration: 3 Hrs
Max. 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 19-24 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

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

1. SAI Khelo India Fitness Test for school children consist of: 1
[a] Flamingo Balance Test [b] Plate Tapping Test
[c] Abdominal Partial Curl Up [d] All of these
2. The food component present in sugar is _____. 1
[a] Fats [b] Protein [c] Vitamin [d] Carbohydrate
3. The _____ was previously called as World Games for the Deaf. 1
[a] Deaflympics [b] Paralympics
[c] Differently Abled Olympics [d] Specially Abled Olympics
4. Horse riding can be used as a corrective measure for _____. 1



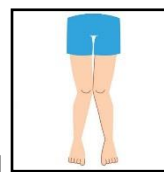
[a]



[b]



[c]



[d]

5. When was SAI Khelo India Fitness Test introduced? 1
[a] 09th Jan, 2019 [b] 10th Jan, 2019 [c] 02nd Jan, 2019 [d] 07th Jan, 2019

6. Match the asanas in Column I with their contraindications in Column II.

1

Column - I		Column - II	
I	Trikonasana	1	Person suffering from Bleeding piles
II	Ardh-matseyendrasana	2	Person suffering from Arthritis
III	Sukhasana	3	Person suffering from Hernia
IV	Gomukhasana	4	Person suffering from Asthma

Code				
	I	II	III	IV
a	(ii)	(iv)	(iii)	(i)
b	(ii)	(iv)	(i)	(iii)
c	(iv)	(iii)	(ii)	(i)
d	(iv)	(i)	(ii)	(iii)

7. In a knock-out tournament 4th 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

8. The fibre present in the food which helps to eliminate wastes from the body is called _____. 1

- [a] Carbohydrates [b] Vitamins [c] Roughage [d] Minerals

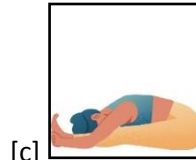
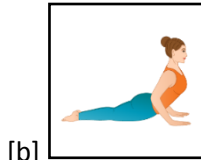
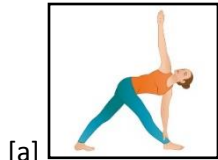
9. Physical Activity increases _____. 1

- [a] Sleep Hours [b] Appetite [c] Laziness [d] Intellect

10. 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] $N(N+1)/2$

11. Identify these asanas. 1



12. Physical Education is the perfect opportunity for _____ exercises. 1

- [a] Isotonic [b] Isometric [c] Isokinetic [d] Team Building

13. Match the following: 1

Column - I		Column - II	
A	Technical committee	i	To provide shifting facility
B	Finance committee	ii	To resolve dispute
C	Transport committee	iii	To deals with money and expenditure
D	First Aid committee	iv	To provide medical facility

[a] a-ii, b-iii, c-i, d-iv

[b] a-iii, b-ii, c-i, d-iv

[c] a-ii, b-iii, c-iv, d-i

[d] a-iv, b-iii, c-i, d-ii

14. Gomukhasana and padmasana are performed to rectify which postural deformity? 1

- [a] Flatfoot [b] Scoliosis [c] Knock-knees [d] Bow legs

15. In which asana, the body imitates like a palm tree? 1
[a] Tadasana [b] Parvatasnan [c] Chakrasana [d] Bhujangasana
16. What symbol represents the Paralympic Games? 1
 [a] flame [b] A triangle [c] **Three agitos (circular shapes)** [d] A globe
17. Which of the following is a Micro-nutrient? 1
 [a] Carbohydrates [b] Fats [c] Water [d] **Vitamins**
18. 600-yard run/walk is conducted to test _____. 1
 [a] Speed [b] Flexibility [c] **Endurance** [d] Agility

SECTION – B

Section B consist of 6 questions attempt any 5

19. Write any two advantages and disadvantages of league tournaments. 2

Ans: **Advantages:**

- **Accurate ranking:** The true merit of a team is decided because every team gets ample opportunities to play against all opponents.
- **Maximum participation:** Teams stay engaged throughout the entire season since they are not eliminated after a single loss.

Disadvantages:

- **Time-consuming:** It takes a long period to complete the tournament due to the high number of total matches.
- **Higher cost:** Organisers and teams spend more money on logistics, venues, and officiating over the extended schedule.

20. How can one recognize a person suffering from hypertension? 2

Ans: A person with **hypertension (high blood pressure)** may not always show symptoms, which is why it is often called the "**silent killer.**" However, some people may experience the following signs and symptoms:

- **Frequent headaches**, especially in the morning.
- **Dizziness or light-headedness.**
- **Blurred vision** or difficulty seeing clearly.
- **Shortness of breath**, especially during physical activity.
- **Chest pain** or discomfort.
- **Nosebleeds** (in some cases).
- **Fatigue or weakness.**
- **Irregular heartbeat (palpitations).**

Important Note

The **only reliable way to recognize hypertension is by measuring blood pressure** with a sphygmomanometer (blood pressure monitor). Normal blood pressure is around **120/80 mmHg**, while consistently higher readings (such as **140/90 mmHg or above**) indicate hypertension.
 (Any two)

21. What do you mean by Flamingo balance test? 2

Ans: The **Flamingo Balance Test** is a **test of static balance** that measures a person's ability to maintain balance while standing on one leg. It is commonly used in **Class XII Physical Education** and in fitness assessment batteries such as the **Eurofit Test Battery**.

Procedure

Stand on a narrow wooden beam or balance beam with your **preferred foot**.

Bend the other leg backward and hold the ankle with the hand on the same side.

Balance on one leg for **60 seconds**.

Every time you lose balance (e.g., touch the ground, let go of the foot, or fall off the beam), it is counted as **one attempt**. The test continues until 60 seconds are completed.

Scoring

The **score is the total number of attempts** needed to maintain balance during the 60-second period.

Fewer attempts indicate better balance.

Purpose

To assess **static balance** and postural control.

To evaluate coordination and stability, which are important for sports and daily activities.

Example

If a student loses balance **8 times** during the 60-second test, the Flamingo Balance Test score is **8**. A student who loses balance only **3 times** has **better static balance**.

One-mark definition:

Flamingo Balance Test is a test used to measure **static balance** by counting the number of times a person loses balance while standing on one leg on a narrow beam for **60 seconds**.

22. What role is played by positive behavior for making physical activities assessable for children with special needs? **2**

Ans: **Role of Positive Behaviour in Making Physical Activities Accessible for Children with Special Needs (CWSN)**

Positive behaviour plays a vital role in ensuring that children with special needs can participate successfully, safely, and confidently in physical activities. It creates an encouraging and inclusive environment that promotes learning, participation, and overall development.

Key roles of positive behaviour include:

- **Encourages Active Participation:** Positive reinforcement motivates children to participate willingly in sports and physical activities.
- **Builds Self-Confidence:** Praise and encouragement help children believe in their abilities, increasing their confidence and self-esteem.
- **Reduces Challenging Behaviour:** Supportive guidance and clear expectations help minimize disruptive or aggressive behaviours during activities.
- **Promotes Social Inclusion:** Positive behaviour encourages cooperation, teamwork, communication, and friendship with peers, reducing feelings of isolation.
- **Improves Learning and Skill Development:** A positive environment helps children focus better, learn new motor skills, and improve physical fitness.
- **Enhances Emotional Well-being:** Encouragement and acceptance reduce anxiety and frustration, making physical activities enjoyable.
- **Ensures Safety:** Following positive behavioural expectations, such as listening to instructions and respecting rules, helps prevent injuries.
- **Develops Independence:** Positive feedback motivates children to perform tasks independently and take responsibility for their actions.

Conclusion

Positive behaviour is essential for making physical activities accessible and enjoyable for children with special needs. It fosters confidence, inclusion, safety, and skill development, enabling every child to participate to the best of their ability.

Exam Tip:

A 5-mark answer should include at least **5–6 points with a brief explanation** and conclude by stating that positive behaviour creates an inclusive and supportive environment for CWSN.

23. Explain remedial measures required to correct 'Round Shoulders' deformity.

2

Ans: **Round Shoulders** is a postural deformity in which the shoulders are rounded and pulled forward due to poor posture, weak upper back muscles, or tight chest muscles.

Remedial Measures:

➤ **Strengthen the Upper Back Muscles**

Perform exercises such as:

- Rows
- Reverse fly
- Shoulder blade (scapular) squeezes
- Superman exercise
- These exercises strengthen the muscles that pull the shoulders backward.

➤ **Stretch the Chest Muscles**

- Stretch the pectoral (chest) muscles regularly.
- Doorway chest stretch and corner stretch help reduce tightness in the front of the shoulders.

➤ **Improve Posture**

- Stand and sit with the head upright, chest lifted, and shoulders pulled back.
- Avoid slouching while studying, using computers, or mobile phones.

➤ **Practice Corrective Exercises**

- Shoulder rolls
 - Wall slides
 - T-position arm raises
 - Resistance band pull-apart
- These exercises improve shoulder alignment and flexibility.

➤ **Regular Physical Activity**

- Activities such as swimming (especially backstroke), yoga, and stretching help improve posture and strengthen supporting muscles.

➤ **Ergonomic Adjustments**

- Maintain proper desk and chair height.
- Keep computer screens at eye level.
- Avoid carrying heavy bags on one shoulder.

Conclusion

Round shoulders can be corrected through **regular corrective exercises, stretching of the chest muscles, strengthening of the upper back muscles, and maintaining proper posture**. Early correction helps prevent pain and improves overall body alignment.

24. What do you mean by nutritive components of diet?

2

Ans: **Nutritive components of diet** are the nutrients present in food that provide energy, support growth and development, repair body tissues, and regulate body functions. These are essential for maintaining good health and proper body functioning.

The **six main nutritive components of a balanced diet** are:

➤ **Carbohydrates** – The main source of energy for the body.

Sources: Rice, wheat, bread, potatoes, fruits.

➤ **Proteins** – Help in growth, repair of body tissues, and muscle development.

Sources: Milk, eggs, fish, meat, pulses, soybeans.

➤ **Fats** – Provide concentrated energy, protect organs, and help absorb certain vitamins.

Sources: Butter, ghee, oils, nuts, seeds.

➤ **Vitamins** – Regulate body processes and protect against diseases.

Sources: Fruits, green leafy vegetables, milk, eggs.

➤ **Minerals** – Essential for healthy bones, teeth, blood formation, and proper body functions.

Sources: Milk (calcium), spinach (iron), bananas (potassium).

- **Water** – Helps in digestion, absorption, transportation of nutrients, and regulation of body temperature.

Sources: Drinking water, fruits, vegetables.

Definition:

Nutritive components of diet are the essential nutrients present in food that provide energy, promote growth, repair body tissues, and regulate various body functions to maintain good health.

SECTION – C

Section C consist of 6 questions attempt any 5

25. Compare three nutritive and non-nutritive components of balance diet.

3

Ans: A **balanced diet** contains both **nutritive** and **non-nutritive** components. The comparison of three nutritive and three non-nutritive components is given below:

Nutritive Components	Non-Nutritive Components
Carbohydrates – Main source of energy for the body.	Dietary Fibre (Roughage) – Aids digestion, prevents constipation, but provides no energy.
Proteins – Help in growth, repair of body tissues, and muscle development.	Water – Regulates body temperature, transports nutrients, and removes waste; provides no calories.
Fats – Provide concentrated energy, protect organs, and help absorb fat-soluble vitamins.	Phytochemicals/Antioxidants – Protect the body from diseases and improve overall health but do not provide energy.

26. Elaborate the various types of problems related to menstrual dysfunction?

3

Ans: Menstrual dysfunction refers to abnormalities or disorders in the menstrual cycle that may affect a woman's health, physical performance, and daily life. The common types of menstrual dysfunction are:

1. Amenorrhea: Amenorrhea is the absence of menstruation.

Primary Amenorrhea: Menstruation does not begin by the age of 15–16 years.

Secondary Amenorrhea: Menstrual periods stop for three or more consecutive months after having previously occurred.

Causes: Hormonal imbalance, excessive exercise, stress, poor nutrition, pregnancy, or certain medical conditions.

2. Dysmenorrhea: Dysmenorrhea refers to painful menstruation.

Symptoms include severe cramps in the lower abdomen, back pain, nausea, headache, and fatigue.

It may reduce participation in physical activities and sports.

Causes: Excessive uterine contractions, endometriosis, or other reproductive disorders.

3. Menorrhagia: Menorrhagia means unusually heavy or prolonged menstrual bleeding.

Women may need to change sanitary products very frequently or bleed for more than 7 days.

Causes: Hormonal imbalance, uterine fibroids, infections, or bleeding disorders.

It can lead to weakness, fatigue, and anemia.

4. Oligomenorrhea: Oligomenorrhea is infrequent menstruation, where menstrual cycles occur more than 35 days apart.

Causes: Hormonal disorders, excessive physical training, stress, obesity, or conditions such as polycystic ovary syndrome (PCOS).

5. Polymenorrhea: Polymenorrhea is frequent menstruation, with menstrual cycles shorter than 21 days.

Causes: Hormonal imbalance, stress, thyroid disorders, or uterine abnormalities.

6. Premenstrual Syndrome (PMS): PMS is a group of physical, emotional, and behavioral symptoms that occur before menstruation.

Symptoms include mood swings, irritability, bloating, breast tenderness, headaches, and fatigue.

Symptoms usually disappear after menstruation begins.

Conclusion

Menstrual dysfunctions can affect a woman's physical health, emotional well-being, and sports performance. Early diagnosis, a balanced diet, regular exercise, stress management, and timely medical consultation can help manage these conditions effectively.

Exam Tip:

The most commonly asked menstrual dysfunctions are **Amenorrhea, Dysmenorrhea, and Menorrhagia**. Write their definitions, causes, and effects to score full marks.

27. Discuss any three advantages of physical activities for children with special needs.

3

Ans: Physical activities offer many benefits for children with special needs. Three major advantages are:

- **Improves Physical Health:** Regular physical activities help improve muscle strength, flexibility, balance, coordination, and overall fitness. They also reduce the risk of obesity and other health problems while promoting healthy growth and development.
- **Enhances Social Skills:** Participating in games and sports allows children to interact with peers, develop teamwork, improve communication skills, and build friendships. This helps them feel included and increases their confidence in social situations.
- **Boosts Emotional and Mental Well-being:** Physical activities reduce stress and anxiety, improve mood, and increase self-esteem. Achieving success in sports or exercise also gives children a sense of accomplishment and independence, leading to greater confidence and motivation.

28. What is the procedure to assess abdominal strength of the body?

3

Ans: The **procedure to assess abdominal strength** is commonly done using the **Partial Curl-Up Test**, which measures the strength and endurance of the abdominal muscles.

Procedure

- The participant lies on their back (supine position) on a mat.
- Knees are bent at about **90°**, with feet flat on the floor.
- Arms are kept straight alongside the body, with palms facing downward.
- A measuring strip or marker is placed so that the fingertips move about **8–12 cm** (depending on age) during each curl-up.
- On the command "Go," the participant slowly curls the upper body until the fingertips reach the marker, then returns to the starting position.
- The movement is performed in rhythm, usually at a set pace (about **20 curl-ups per minute**), until the participant can no longer maintain the correct technique or reaches the maximum prescribed number.

Scoring

- The score is the **total number of correctly performed curl-ups** completed without breaking the rhythm or using improper technique.
- Higher scores indicate **better abdominal muscle strength and endurance**.

Precautions

- Avoid jerky or rapid movements.
 - Keep the feet on the floor throughout the test.
 - Maintain the correct pace and posture.
- **Stop the test if the participant experiences pain or discomfort.**

29. Write down the symptoms of obesity.

3

Ans: Obesity is a condition in which excessive body fat accumulates and affects health. Common symptoms include:

- **Excess body fat** – Visible accumulation of fat around the abdomen, hips, thighs, and other parts of the body.
- **Shortness of breath** – Difficulty in breathing, especially during physical activity.
- **Easy fatigue** – Feeling tired quickly even after doing simple daily activities.
- **Joint and back pain** – Extra body weight puts pressure on the knees, hips, ankles, and lower back.
- **Difficulty in movement** – Reduced flexibility and problems in walking, climbing stairs, or exercising.
- **Excessive sweating** – Sweating more than usual due to increased body weight.
- **Snoring and disturbed sleep** – Obesity may lead to sleep problems such as sleep apnea.
- **High blood pressure** – Often associated with obesity and increases the risk of heart disease.

Conclusion:

Recognizing these symptoms early helps in preventing serious health problems. A balanced diet, regular physical activity, and a healthy lifestyle are essential for managing and preventing obesity.

30. Draw a fixture of eight teams using Tabular method.

3

Ans: A **Tabular Method** fixture is used in a **league tournament**, where each team plays against every other team once.

For **8 teams (A, B, C, D, E, F, G, H)**, the fixture is as follows:

Teams	A	B	C	D	E	F	G	H
A	–	✓	✓	✓	✓	✓	✓	✓
B		–	✓	✓	✓	✓	✓	✓
C			–	✓	✓	✓	✓	✓
D				–	✓	✓	✓	✓
E					–	✓	✓	✓
F						–	✓	✓
G							–	✓
H								–

Matches

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

C vs E
C vs F
C vs G
C vs H
D vs E
D vs F
D vs G
D vs H
E vs F
E vs G
E vs H
F vs G
F vs H
G vs H

Total number of matches = $8(8-1) = 28$

Section-D

Section D consist of 3 questions

31. A health club conducted the **Senior Citizen Fitness Test** for elderly members. Mrs. Mehta (68 years) performed: 4

- Chair Stand Test
- Chair Sit and Reach Test
- Back Scratch Test
- Eight Foot Up and Go Test

[i] The Chair Stand Test measures:

- [a] Balance **[b] Lower body strength** [c] Upper body flexibility [d] Agility

[ii] Which test measures upper body flexibility?

- [a] Chair Stand Test **[b] Back Scratch Test**
[c] Eight Foot Up and Go Test [d] Chair Sit and Reach Test

[iii] The Arm Curl Test is used to measure:

- [a] Cardiovascular endurance [b] Balance
[c] Upper body strength [d] Speed

[iv] Which test measures the flexibility of the lower body (hamstrings and lower back)?

- [a] Back Scratch Test **[b] Chair Sit and Reach Test**
[c] 8-Foot Up-and-Go Test [d] Chair Stand Test

32. Rohan is a 16-year-old student with an intellectual disability. His Physical Education teacher noticed his enthusiasm for athletics and encouraged him to join the local **Special Olympics Bharat** training programme. After months of regular practice, Rohan participated in district-level competitions. His confidence improved, he made new friends, and his physical fitness also increased. His parents appreciated how sports helped him become more independent and socially active. Special Olympics Bharat provides year-round sports training and competitions for persons with intellectual disabilities, promoting inclusion, fitness, and self-confidence. 4

[i] Which organization is most suitable for Rohan to participate in sports competitions?

- [a] Olympic Games [b] Paralympic Games **[c] Special Olympics Bharat** [d] Asian Games

[ii] Rohan's participation in sports mainly helped him to develop:

- [a] Fear and hesitation
[c] Only academic performance

- [b] **Confidence, social skills, and fitness**
[d] Only financial benefits

[iii] Special Olympics Bharat primarily organizes sports for persons with:

- [a] Visual impairment only
[b] Hearing impairment only
[c] **Intellectual disabilities**
[d] Physical disabilities only

[iv] What is the most important lesson from Rohan's experience?

- [a] Sports are only for professional athletes.
[b] Children with intellectual disabilities should not compete.
[c] **Participation in sports promotes inclusion, confidence, and overall development.**
[d] Winning medals is the only objective of sports.

33. Before a 5 km race, Neha eats a bowl of oatmeal with a banana and drinks water. She avoids oily and spicy foods. 4

[i] Why did Neha choose oatmeal and banana before the race?

- [a] They are rich in carbohydrates.
[b] They contain excess fat.
[c] They are difficult to digest.
[d] They reduce hydration.

[ii] Which food should generally be avoided just before competition?

- [a] Banana
[b] Oatmeal
[c] Oily and spicy foods
[d] Whole-grain bread

[iii] What is the main purpose of a pre-event meal?

- [a] Increase body fat
[b] Provide energy for performance
[c] Reduce muscle strength
[d] Cause dehydration

[iv] **Subjective Question:** Write any two characteristics of a good pre-competition meal.

Section-E

Section E consist of 4 questions attempt any 3

34. Which are the Asanas practiced for preventing Asthma? Write in detail about any two of them.

Ans: The following **asanas (yoga postures)** are commonly recommended for helping prevent or manage asthma by improving lung capacity, strengthening respiratory muscles, and promoting relaxation:

1. Bhujangasana (Cobra Pose)
 2. Gomukhasana (Cow Face Pose)
 3. Matsyasana (Fish Pose)
 4. Sukhasana (Easy Pose)
 5. Ardha Matsyendrasana (Half Spinal Twist)
 6. Setu Bandhasana (Bridge Pose)
1. Bhujangasana (Cobra Pose)

Procedure:

- Lie flat on your stomach with your legs together.
- Place your palms beside your shoulders.
- Inhale and slowly lift your head, chest, and upper abdomen by straightening your arms.
- Keep your elbows slightly bent and shoulders relaxed.
- Hold the position for **15–30 seconds** while breathing normally.
- Exhale and slowly return to the starting position.

Benefits:

- Expands the chest and improves lung capacity.

- Strengthens the back and abdominal muscles.
- Improves breathing efficiency.
- Helps reduce stress and fatigue, which can trigger asthma.

2. Gomukhasana (Cow Face Pose)

Procedure:

- Sit on the floor with both legs stretched forward.
- Bend the left leg under the right hip and place the right leg over the left so that both knees are stacked.
- Raise the right arm overhead and bend it behind the back.
- Bring the left arm behind the back from below and clasp both hands.
- Keep the spine straight and breathe normally.
- Hold the posture for **20–30 seconds**, then repeat on the opposite side.

Benefits:

- Expands the chest and improves respiratory function.
- Increases flexibility of the shoulders and chest muscles.
- Promotes deep breathing.
- Helps relieve stress and improves posture, supporting better lung function.

Conclusion:

Regular practice of these asanas, along with proper breathing exercises (Pranayama), can help improve respiratory health, increase lung capacity, and assist in the prevention and management of asthma. They should be practiced under proper guidance, especially by people with severe asthma.

Or

5

Describe the procedure for performing Gomukhasana along with its benefits and contraindications.

Ans: Gomukhasana (Cow Face Pose)

Gomukhasana is a seated yoga posture in which the legs and arms are positioned to resemble the face of a cow. It improves flexibility of the shoulders, hips, and spine and is commonly practiced for overall physical and mental well-being.

Procedure for Performing Gomukhasana

- Sit on the floor with both legs stretched forward.
- Bend the left leg and place the left foot beside the right hip.
- Bend the right leg and place it over the left leg so that the right knee is directly above the left knee. The right foot should rest beside the left hip.
- Raise the right arm overhead, bend it at the elbow, and bring the hand down the back.
- Take the left arm behind the back from below and try to clasp the fingers of both hands.
- Keep the head and spine straight and breathe normally.
- Hold the posture for **20–30 seconds** or as comfortable.
- Release the hands and legs gently, then repeat the pose on the opposite side.

Benefits of Gomukhasana

- Increases flexibility of the shoulders, arms, chest, hips, and thighs.
- Improves posture by stretching the spine and opening the chest.
- Strengthens the back muscles and enhances spinal mobility.
- Helps reduce stiffness in the shoulders and neck.
- Improves blood circulation and relieves stress and fatigue.
- Beneficial for people with mild backache and improves overall body coordination.

Contraindications

- Avoid Gomukhasana if you have a **serious knee injury** or severe knee pain.
- Do not practice if you have a **shoulder injury**, frozen shoulder, or recent arm injury.
- Avoid the pose in case of **severe hip pain** or hip injury.
- People with **slipped disc** or severe spinal disorders should practice only under expert supervision.

- Pregnant women should perform this pose only after consulting a qualified yoga instructor or healthcare professional.

Exam Tip:

When answering in examinations, write the **procedure (6–8 steps)**, **benefits (any 4–6 points)**, and **contraindications (3–5 points)** to score full marks.

35. Explain macro-nutrients and their role in our diet.

Ans: Macro-nutrients and Their Role in Our Diet

Macro-nutrients are nutrients that the body requires in **large amounts** to provide energy, support growth, repair tissues, and maintain normal body functions. The three main macro-nutrients are **carbohydrates, proteins, and fats**.

1. Carbohydrates

Definition:

Carbohydrates are the **primary source of energy** for the body. They are broken down into glucose, which is used by cells for energy.

Sources:

- Rice, wheat, bread
- Potatoes
- Fruits
- Sugar and cereals

Role in the Diet:

- Provide immediate energy for daily activities.
- Fuel the brain and nervous system.
- Help spare proteins for growth and repair.
- Store excess energy as glycogen in the liver and muscles.

2. Proteins

Definition:

Proteins are known as the **body-building nutrients** because they help in the growth and repair of body tissues.

Sources:

- Milk and milk products
- Eggs
- Fish and meat
- Pulses, beans, soybeans, nuts

Role in the Diet:

- Build and repair muscles and tissues.
- Support growth and development.
- Help produce enzymes, hormones, and antibodies.
- Aid in recovery from illness and injury.

3. Fats

Definition:

Fats are a **concentrated source of energy** and are essential for many body functions.

Sources:

- Butter and ghee
- Vegetable oils
- Nuts and seeds
- Cheese and avocados

Role in the Diet:

- Provide long-lasting energy (9 kcal per gram).

- Protect vital organs from injury.
- Help absorb fat-soluble vitamins (A, D, E, and K).
- Maintain healthy skin and body temperature.
- Support hormone production.

Importance of Macro-nutrients

- Supply energy for physical and mental activities.
- Promote growth and tissue repair.
- Support normal body functions.
- Help maintain overall health and fitness.
- Essential for proper development, especially in children and athletes.

Conclusion

Macro-nutrients are the major nutrients required by the body in large quantities. A **balanced diet** should include appropriate amounts of **carbohydrates, proteins, and fats** to ensure good health, adequate energy, proper growth, and efficient body functioning.

Or

5

What are fats? Write a detailed note on its types. Also mention its importance in the proper functioning of the body.

Ans: Fats: Definition, Types and Importance in the Body

What are Fats?

Fats are one of the **essential nutritive components** of a balanced diet. They are a concentrated source of energy, providing **9 kcal (calories) per gram**, which is more than carbohydrates and proteins. Fats are made up of **fatty acids and glycerol** and are necessary for the normal growth, development, and proper functioning of the human body.

Types of Fats

Saturated Fats

- These fats are usually **solid at room temperature**.
- Mainly obtained from **animal sources**.
- Excessive intake may increase bad cholesterol (LDL) and the risk of heart disease.

Sources:

- Butter
- Ghee
- Cheese
- Cream
- Fatty meat
- Coconut oil
- Palm oil

Unsaturated Fats

- These are considered **healthy fats** and are generally **liquid at room temperature**.
 - Monounsaturated Fats (MUFA)
- Help lower bad cholesterol (LDL).
- Improve heart health.

Sources:

- Olive oil
- Groundnut oil
- Mustard oil

- Avocados
- Almonds
- Peanuts

Polyunsaturated Fats (PUFA)

- Contain **Omega-3 and Omega-6 fatty acids**, which are essential for the body.
- Promote brain and heart health.

Sources:

- Sunflower oil
- Soybean oil
- Flaxseeds
- Walnuts
- Fatty fish (salmon, sardines)

Trans Fats

- Formed by the **hydrogenation of vegetable oils**.
- These are the **most harmful fats**.
- Increase bad cholesterol (LDL) and decrease good cholesterol (HDL).

Sources:

- Cakes
- Biscuits
- Pastries
- Chips
- Fried fast foods
- Packaged snacks

Importance of Fats in the Proper Functioning of the Body

- **Provide Energy:** Fats are the richest source of energy, supplying **9 kcal per gram**.
- **Energy Storage:** Excess energy is stored as fat and used when the body needs extra energy.
- **Protect Internal Organs:** Fat cushions and protects vital organs such as the heart and kidneys from injury.
- **Maintain Body Temperature:** Fat under the skin acts as an insulator and helps keep the body warm.
- **Absorption of Vitamins:** Essential for the absorption of **fat-soluble vitamins A, D, E, and K**.
- **Support Brain and Nervous System:** Healthy fats are important for brain development, memory, and nerve function.
- **Cell Structure:** Fats are a major component of cell membranes and help maintain healthy cells.
- **Hormone Production:** Required for the production of several hormones that regulate body functions.
- **Provide Essential Fatty Acids:** Supply Omega-3 and Omega-6 fatty acids, which the body cannot produce on its own.
- **Improve Satiety:** Slow digestion and help keep a person full for a longer time.

Conclusion

Fats are an essential part of a balanced diet and play a vital role in providing energy, protecting organs, supporting brain function, and helping absorb vitamins. **Unsaturated fats** should be preferred for good health, while **trans fats** and excessive **saturated fats** should be limited to reduce the risk of obesity and cardiovascular diseases.

36. Write the administration and procedure of Arm Curl Test.

Ans: Administration and Procedure of the Arm Curl Test (Senior Citizen Fitness Test)

The **Arm Curl Test** is used to assess the **upper body strength and endurance** of senior citizens, especially the muscles of the arms (biceps).

Administration:

- **Purpose:** To measure upper body muscular strength and endurance.
- **Equipment Required:**
- A chair without armrests.
- A dumbbell:
- **5 lb (2.3 kg)** for women.
- **8 lb (3.6 kg)** for men.
- Stopwatch.
- Score sheet.

Starting Position:

- The participant sits comfortably on the chair with feet flat on the floor.
- The dumbbell is held in the dominant hand using an underhand grip (palm facing upward).
- The arm is fully extended beside the body.
- Procedure
- The participant sits upright on the chair with the dumbbell in the dominant hand.
- On the command "**Go**", the participant curls the weight by bending the elbow through the full range of motion.
- The weight is then lowered back to the starting position until the arm is fully extended.
- The participant performs as many **correct arm curls as possible in 30 seconds**.
- The non-testing hand may be placed on the thigh for support but should not assist the movement.
- The tester counts only correctly completed curls. Improper repetitions are not counted.

Scoring

- The **score is the total number of correctly completed arm curls in 30 seconds**.
- A higher score indicates **better upper body muscular strength and endurance**.
- This test is a standard component of the **Senior Citizen Fitness Test (Rikli & Jones Test Battery)** and is widely used to evaluate functional fitness in older adults.

Or

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Write the administration and procedure of chair stand test.

Ans: Administration and Procedure of the Chair Stand Test

The **Chair Stand Test** is a part of the **Senior Citizen Fitness Test**. It is used to assess the **lower body strength** of older adults.

Administration

Purpose: To measure the strength and endurance of the lower body (legs).

Equipment Required:

- A straight-backed chair (seat height about **43 cm or 17 inches**) without armrests.
- Stopwatch.
- Recording sheet.

Starting Position:

- The participant sits in the middle of the chair with their back straight.
- Feet should be flat on the floor and shoulder-width apart.
- Arms are crossed at the wrists and held against the chest.

Procedure

- The participant sits on the chair with arms crossed over the chest.
- On the command "**Go**", the participant stands up completely and then sits down again.
- The participant repeats this movement as many times as possible in **30 seconds**.

- The tester counts the number of **full stands** completed within 30 seconds.
- If the participant is more than halfway through a stand when time expires, it is counted as one complete repetition.

Scoring

- The score is the **total number of correctly completed chair stands in 30 seconds**.
- A higher score indicates **better lower body strength and functional fitness**.

37. Write down the introduction, objectives, eligibility, features and importance of the Special Olympics.

Ans: **Special Olympics**

- Introduction: **Special Olympics** is an international sports movement for **children and adults with intellectual disabilities**. It was founded in **1968** by Eunice Kennedy Shriver. The organization provides year-round sports training and competitions in Olympic-type sports, helping athletes improve their physical fitness, confidence, social skills, and overall quality of life while promoting inclusion and equality.
- **Objectives of Special Olympics:**
 - To provide year-round sports training and competitions for persons with intellectual disabilities.
 - To improve physical fitness, motor skills, and sports performance.
 - To develop self-confidence, courage, discipline, and leadership qualities.
 - To encourage social inclusion and equal opportunities.
 - To promote friendship, teamwork, and sportsmanship.
 - To create public awareness about the abilities of persons with intellectual disabilities.
- **Eligibility**
 - Every person with an **intellectual disability** who is **8 years of age or older** is eligible to participate.
 - There is **no upper age limit** for participation.
 - Children **below 8 years** can participate in the **Young Athletes Program**, which develops basic movement and sports skills but is not part of official competition.
- **Features of Special Olympics**
 - Conducts **year-round** sports training and competitions.
 - Offers more than **30 Olympic-type sports**.
 - Provides equal opportunities for athletes of different ability levels.
 - Encourages participation through **Unified Sports**, where persons with and without intellectual disabilities play together.
 - Promotes health, fitness, education, and leadership programs.
 - Operates in countries around the world, making it a truly global movement.
- **Importance of Special Olympics**
 - Improves physical fitness and overall health.
 - Builds self-confidence and self-esteem.
 - Develops social skills, communication, and teamwork.
 - Promotes inclusion and reduces discrimination against persons with intellectual disabilities.
 - Provides opportunities to display talent and achieve success in sports.
 - Encourages family and community participation.
 - Helps athletes become more independent and respected members of society.

Or

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Write down the introduction, objectives, eligibility, features and importance of the Paralympics.

Ans: **Paralympics**

- **Introduction:** The **Paralympics** is the world's largest international multi-sport event for athletes with physical, visual, and intellectual impairments. It is organized immediately after the Olympic Games and

is governed by the International Paralympic Committee (IPC). The Paralympics aim to promote excellence in sports, equal opportunities, and social inclusion for persons with disabilities. The first official Paralympic Games were held in **1960 in Rome, Italy**.

➤ **Objectives of the Paralympics**

- To provide international sporting opportunities for athletes with disabilities.
- To promote equality, inclusion, and non-discrimination through sports.
- To encourage physical fitness, confidence, and independence among persons with disabilities.
- To develop sportsmanship, leadership, and teamwork.
- To spread awareness about the abilities and achievements of persons with disabilities.
- To inspire society to respect and support differently-abled athletes.

➤ **Eligibility**

- Athletes must have an **eligible permanent impairment** recognized under the IPC classification system.
- They must meet the **minimum eligibility criteria** for their sport and classification.
- They should qualify through national or international competitions as prescribed by the respective sports federation.
- Athletes must comply with IPC rules, including anti-doping regulations and fair play principles.
- Features of the Paralympics
- Conducted every **four years**, immediately after the Olympic Games.
- Organized by the **International Paralympic Committee (IPC)**.
- Includes athletes with different categories of disabilities, such as physical, visual, and intellectual impairments.
- Uses a **classification system** to ensure fair competition among athletes with similar functional abilities.
- Features a wide range of sports such as athletics, swimming, wheelchair basketball, para badminton, wheelchair tennis, and cycling.
- Promotes accessibility, inclusion, and equal participation.
- Attracts athletes from countries across the world.

➤ **Importance of the Paralympics**

- Promotes equal opportunities and inclusion in sports.
- Enhances self-confidence, independence, and quality of life of persons with disabilities.
- Encourages participation in physical activities and improves overall health.
- Changes society's perception by focusing on athletes' abilities rather than disabilities.
- Inspires people with disabilities to achieve excellence in sports and life.
- Promotes international friendship, peace, and cultural exchange.
- Encourages governments and organizations to improve accessibility and support for persons with disabilities.

*****ALL THE BEST*****