

Marking Scheme
Strictly Confidential
(For Internal and Restricted use only)
Senior School Certificate Examination, 2024
SUBJECT NAME: PHYSICAL EDUCATION (Q.P. CODE 75)

General Instructions: -

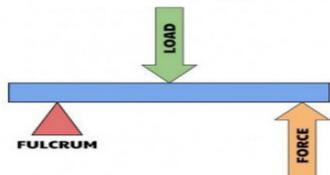
1	You are aware that evaluation is the most important process in the actual and correct assessment of the candidates. A small mistake in evaluation may lead to serious problems, which may affect the future of the candidates, education system and teaching profession. To avoid mistakes, it is requested that before starting evaluation, you must read and understand the spot evaluation guidelines carefully.
2	“Evaluation policy is a confidential policy as it is related to the confidentiality of the examinations conducted, Evaluation done and several other aspects. Its’ leakage to public in any manner could lead to derailment of the examination system and affect the life and future of millions of candidates. Sharing this policy/document to anyone, publishing in any magazine and printing in News Paper/Website etc may invite action under various rules of the Board and IPC.”
3	Evaluation is to be done as per instructions provided in the Marking Scheme. It should not be done according to one’s own interpretation or any other consideration. Marking Scheme should be strictly adhered to and religiously followed. However, while evaluating, answers which are based on latest information or knowledge and/or are innovative, they may be assessed for their correctness otherwise and due marks be awarded to them. In class-XII, while evaluating two competency-based questions, please try to understand given answer and even if reply is not from marking scheme but correct competency is enumerated by the candidate, due marks should be awarded.
4	The Marking scheme carries only suggested value points for the answers. These are in the nature of Guidelines only and do not constitute the complete answer. The students can have their own expression and if the expression is correct, the due marks should be awarded accordingly.
5	The Head-Examiner must go through the first five answer books evaluated by each evaluator on the first day, to ensure that evaluation has been carried out as per the instructions given in the Marking Scheme. If there is any variation, the same should be zero after deliberation and discussion. The remaining answer books meant for evaluation shall be given only after ensuring that there is no significant variation in the marking of individual evaluators.
6	Evaluators will mark (√) wherever answer is correct. For wrong answer CROSS ‘X’ be marked. Evaluators will not put right (✓) while evaluating, which gives an impression that answer is correct, and no marks are awarded. This is most common mistake, which evaluators are committing.
7	If a question has parts, please award marks on the right-hand side for each part. Marks awarded for different parts of the question should then be totaled up and written in the left-hand margin and encircled. This may be followed strictly.
8	If a question does not have any parts, marks must be awarded in the left-hand margin and encircled. This may also be followed strictly.
9	If a student has attempted an extra question, answer of the question deserving more

	marks should be retained and the other answer scored out with a note “ Extra Question ”.
10	No marks to be deducted for the cumulative effect of an error. It should be penalized only once.
11	A full scale of marks _____(example 0 to 80/70/60/50/40/30 marks as given in Question Paper) has to be used. Please do not hesitate to award full marks if the answer deserves it.
12	Every examiner has to necessarily do evaluation work for full working hours i.e., 8 hours every day and evaluate 20 answer books per day in main subjects and 25 answer books per day in other subjects (Details are given in Spot Guidelines).This is in view of the reduced syllabus and number of questions in question paper.
13	<p>Ensure that you do not make the following common types of errors committed by the Examiner in the past:-</p> <ul style="list-style-type: none"> ● Leaving answer or part thereof unassessed in an answer book. ● Giving more marks for an answer than assigned to it. ● Wrong totaling of marks awarded on an answer. ● Wrong transfer of marks from the inside pages of the answer book to the title page. ● Wrong question wise totaling on the title page. ● Wrong totaling of marks of the two columns on the title page. ● Wrong grand total. ● Marks in words and figures not tallying/not same. ● Wrong transfer of marks from the answer book to online award list. ● Answers marked as correct, but marks not awarded. (Ensure that the right tick mark is correctly and clearly indicated. It should merely be a line. Same is with the X for incorrect answer.) ● Half or a part of answer marked correct and the rest as wrong, but no marks awarded.
14	While evaluating the answer books if the answer is found to be totally incorrect, it should be marked as cross (X) and awarded zero (0)Marks.
15	Any unassessed portion, non-carrying over of marks to the title page, or totaling error detected by the candidate shall damage the prestige of all the personnel engaged in the evaluation work as also of the Board. Hence, in order to uphold the prestige of all concerned, it is again reiterated that the instructions be followed meticulously and judiciously.
16	The Examiners should acquaint themselves with the guidelines given in the “ Guidelines for Spot Evaluation ” before starting the actual evaluation.
17	Every Examiner shall also ensure that all the answers are evaluated, marks carried over to the title page, correctly totaled and written in figures and words.
18	The candidates are entitled to obtain photocopy of the Answer Book on request on payment of the prescribed processing fee. All Examiners/Additional Head Examiners/Head Examiners are once again reminded that they must ensure that evaluation is carried out strictly as per value points for each answer as given in the Marking Scheme.

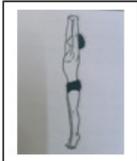
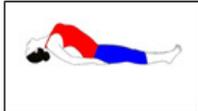
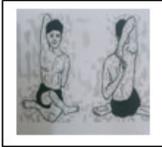
General instruction

- a. The marking scheme carries only suggested value point for the answers.
- b. These are only guidelines and do not constitute the complete answer.
- c. The student can have their own expression and if the expression is correct, the marks be awarded accordingly
- d. The candidates would be permitted to obtain a photocopy of the answer book on request on payment of the prescribed processing fee. All evaluator /Additional head examiners/Head examiners are once again reminded that they must ensure that evaluation is carried out as per value point for each answer as given in the marking scheme.
- e. All Head examiners/Additional head examiners/Evaluators are instructed that while evaluating the answer book if the answer found to be totally incorrect, (X) should be marked on the incorrect answer and awarded '0' marks

Q.NO	ANSWER	MAR KS
1.	(c) Suryabhedan Pranayama	1
2.	(c) 1989	1
3.	(c) Roughage	1
4.	(a) Both Assertion (a) and Reason (r) are true and Reason (r) is the correct explanation of the Assertion (a).	1
5.	(c) I-2, II-4, III-1, IV-3	1
6.	(a) Both Assertion (a) and Reason (r) are true and Reason (r) is the correct explanation of the Assertion (a).	1
7.	(c) Endurance	1
8.	(d) Higher centre of gravity	1
9.	(b) Self-Centered	1
10.	(c) Explosive strength	1
11.	(c) To promote health and fitness	1
12.	(c) 3 – 4 year	1
13.	(d) Shalabhasana For visually impaired Candidates (b) Shavasana	1
14.	(d) International Committee of Sports for the Deaf	1
15.	(c) 18.5 – 24.9	1
16.	(c) 6 inches	1
17.	(a) Cognitive	1
18.	(c) lower body flexibility For visually impaired Candidates (c) arm curl test	1
	SECTION B	
19. Ans.	Describe the second-class lever with suitable example from sports. Second Class lever: It has the load resistance between the fulcrum and the force. So, there is always mechanical advantage as force arm is always greater than resistance arm.	2

	<p style="text-align: center;">2nd CLASS LEVER</p>  <p>Example: Full body push up/Wheel barrow/ wall climbing/ taking off for a jump/pushing against starting blocks in sprints (or any other relevant example)</p>	
20.	Enlist four test items of Jhonson-Metheny test of motor educability.	1/2x4
Ans.	I. Front Roll II. Back Roll III. Jumping Half-Turns IV. Jumping Full-Turns	
21.	Write a short on 'Menarche'.	2
Ans.	-First menstruation cycle of a girl -Point of sexual maturity of girl -Average age for a girl to get her first period ranges from 8-15yrs.age. (Or any other relevant description)	
22.	Enlist four asanas those help to control asthma.	1/2x4
Ans.	Tadasana, Urdhwahastottansana, Uttan Mandukasana, Ushtrasana, Vakrasana, Matsyasana, Gomukhasana, Dhanurasana, Bhujangasana (any four asanas out of the above mentioned asanas)	
23.	Write any two advantages of physical activities for children with special Needs. (CWSN)	1+1
Ans.	Advantages of physical activities for children with special needs: 1.Physical benefits 2.Fun and recreation 3.Improved emotional health 4.Active lifestyle 5.Behavioural benefits 6.Increased independence 7.Psychological benefits 8.Improvement in cognitive and intellectual ability 9.Increase in sleep and appetite 10.Improvement in social skill (any 2 relevant advantages)	
24.	Mention any two types of friction by giving suitable examples from sports.	1+1
Ans.	Types of Friction: <u>Static friction</u> : Weightlifting, Holding the parallel bar	

	<p><u>Sliding friction</u>: Icehockey, ice skating, <u>Rolling friction</u>: Rolling of the football, cricket ball, tennis ball <u>Air friction</u>: Riding a bicycle, skydiving <u>Water friction</u>: Swimming in water, diving (any 2 types with relevant example)</p>	
	SECTION C	
25.	<p>Mr. X performs the Harvard step test for 275 seconds and his pulse in 1-1.5 min after exercise was 100. Write the formula of fitness index score for Harvard step test and calculate the fitness index score of Mr.X.</p>	1+2
Ans.	<p>Harvard step test fitness index score: Duration of exercise = 275 seconds pulse count of 1–1.5 min after exercise = 100 Formula = Duration of the exercise in seconds \times 100/5.5 \times pulse count of 1–1.5 min after exercise $= (275 \times 100) / (5.5 \times 100)$ $= 27500 / 550 = 50$</p>	
26.	<p>Comment on the concept of the talent identification and talent development.</p>	1½ +1½
Ans.	<p><u>Talent Identification</u>: Recognizing participants with the potential at an earlier age to become elite performers in the future. For the talent identification process Physiological, Physical Fitness, Psychological, and Technical Components are taken into consideration. For the identification, various methods such as drills, test batteries, electronic gadgets, parameters, standard norms, performance and other techniques are adopted. <u>Talent Development</u>: Providing athletes with a suitable learning environment to accelerate or realize their potential. It is a complete systematic, scientific and long-term process.</p>	
27.	<p>Explain the responsibilities of any one committee during sports competition.</p>	1½ +1½
Ans.	<p>Committees during sport competition 1.Reception committee 2.First aid committee 3.Refreshment committee 4.Technical committee 5. Media reporting committee 6. Announcement committee 7. Ground and equipment committee</p>	

	8. Transportation committee 9. Finance committee 10. Boarding and loading committee (Explanation of any 2 from the above /relevant committees)	
28. Ans.	<p>Explain the procedure and benefits of any one asana for back pain.</p> <p>Following are the asanas beneficial for back pain: Tadasana, Vakrasana, Sarala Matsyendrasana, Urdhwahastottansana, Ardh Chakrasana, Ushtrasana, Bhujangasana, Gomukhasana, Bhadrasana, Makarasana (Write the procedure and benefits of any one, of the above mentioned asanas – the figs. given for reference)</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  Tadasana </div> <div style="text-align: center;">  Vakrasana </div> <div style="text-align: center;">  Saralmatyasana </div> <div style="text-align: center;">  Urdhwahastottasana </div> <div style="text-align: center;">  ArdhChakrasana </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 10px;"> <div style="text-align: center;">  Bhujangasana </div> <div style="text-align: center;">  Gomukhasana </div> <div style="text-align: center;">  Bhadrasana </div> <div style="text-align: center;">  Ushtasana </div> <div style="text-align: center;">  Makarasana </div> </div>	2+1
29. Ans.	<p>Write short note of Female Athlete Triad.</p> <p>Female athlete triad</p> <p>1. Eating disorders (Low Energy Availability) Eating disorders are mainly of two types: Anorexia nervosa Anorexia nervosa is one type of eating disorder in which a person severely limits the amount of food he or she eats to prevent weight gain or lose weight. Bulimia nervosa Bulimia nervosa is an eating disorder in which a person eats a large amount of food in a short amount of time and gets rid of the food consumed. This may be done by vomiting or taking laxatives.</p> <p>2. Amenorrhea (Disruption of Menstrual and Endocrine Function) Long absence of no menstrual periods is called amenorrhea. It is the state</p>	3

	<p>of a woman, where there is no monthly cycle despite reproductive age, or absence of menstrual cycle for three or more months.</p> <p>There are two main types of amenorrhea:</p> <p>Primary amenorrhea. When the first menstrual bleeding at puberty does not start by the age 15 years.</p> <p>Secondary amenorrhea. When normal menstrual bleeding stops for 3 months or more.</p> <p>3.Osteoporosis (Loss of Bone Mineral Density)</p> <p>This is the condition when bones lose minerals such as calcium, more quickly than the body can replace them leading to a loss of bone thickness (bone density). Any bone can be affected by osteoporosis but the most common sites are the hip, spine, wrist, upper arm, forearm or ribs.</p> <p>(Explain all 3)</p>	
30. Ans.	<p>Describe any three physiological changes due to ageing.</p> <p>Physiological changes due to ageing: -</p> <ol style="list-style-type: none"> 1.Changes in metabolism and body composition 2.Changes in respiratory system 3.Changes in brain and nervous system 4. Changes in digestive system 5. Changes in excretory system 6. Changes in sensory organs 7. Changes in endocrine system 8. Decline in muscle strength 9. Diminishes memory 10.Decrease in cardiovascular function, 11.Loss of bone density 12.Decrease in body mass 13.Decrease in mobility <p>(Explain any 3 points out of the above mentioned point, or any other relevant points)</p>	1+1+1
SECTION D (Case study based)		
31. Ans. Ans.	<p>a) As per the above table in ____event, there is no participation of special child</p> <p>Long Jump</p> <p>b) Participation of student with disabilities in regular physical education classes is known as _____</p> <p>Inclusion/ Adaptive Physical Education .</p> <p>Enlist any two strategies to make physical activities accessible for</p>	4 ×1= 4

<p>Ans.</p>	<p>children with special needs.</p> <p>Any two strategies from the following: (½ X 2=01)</p> <ul style="list-style-type: none"> ✓ To Create Specific Environment ✓ To assess physical and mental ability ✓ To assess the interest of child ✓ Plan for different strategies for instruction ✓ Modified Rules ✓ Use of modified equipment ✓ Plan activity as per need ✓ Plan for implementation from easy to difficult ✓ Extra Care or Concern for safety ✓ Plan for additional support of parents and trained assistants 	
<p>Ans.</p>	<p>c) Motto of special Olympics is _____</p> <p>“Let me win. But if I cannot win, let me be brave in the attempt.”</p> <p>(OR) “Joy and Happiness for all the children of the world.”</p> <p>OR</p> <p>d) The motto of Paralympic is _____</p>	
<p>Ans.</p>	<p>“Spirit in motion.”</p> <p><u>For Visually Impaired</u></p> <p>Write short notes on “Paralympic” and “Special Olympic”.</p> <p>Paralympics</p> <p>The Paralympic Games is a periodic series of international multisport events involving athletes with a range of disabilities. These were held for the first time in 1960 in Rome. They are held immediately after the respective summer and winter Olympic games. The international Paralympics Committee governs all Paralympics games. The Paralympics athletes compete in six different disability groups- Amputee, cerebral palsy, visual impairment, spinal cord injuries, intellectual disability and ‘Les autres’ i.e. Dwarfism</p> <p style="text-align: right;">(or any other relevant points.)</p> <p>Special Olympic</p> <p>Eunice Kennedy Shriver, founder of Special Olympics, was a pioneer in the worldwide struggle for rights and acceptance for people with intellectual disabilities</p> <p>The first special Olympic games were held in July 1968 at Chicago. They were recognized by IOC in 1988. Special Olympic is the world’s largest sports event for children and adult with intellectual and physical disability comprising of 5 million participants from unified sports partner from 172 countries. These games provide opportunities to develop fitness, demonstrate courage and participate in competition and experience joy. The special Olympic world games are organized with interval of two years alternatively as summer and winter games.</p> <p style="text-align: right;">(Or any other relevant information)</p>	<p>2+2=4</p>

32.	(a) Which type of fracture you see in image -1?	4 ×1=
Ans.	Transverse fracture	4
	(b) When a bone breaks diagonally as shown in image-2,it is known as _____.	
Ans.	Oblique fracture	
	(c) _____ fracture occur when the broken ends of the bones are jammed together by the force of the injury.	
Ans.	Impacted fracture	
	(d) In which type of fracture bone is broken, splinted, or crushed into number of pieces?	
Ans.	Comminuted fracture	
	For Visually Impaired candidates only	
	Describe types of fractures. (Any four)4 ×1= 4	
	<u>Stress Fracture</u> — Stress fractures are tiny cracks in a bone	
	<u>Green stick Fracture</u> -- A fracture in a soft bone, in which the bone bends.	
	<u>Oblique Fracture</u> -- Oblique fracture occurs when a bone is broken at an angle/diagonally.	
	<u>Impacted Fracture</u> -- An impacted fracture occurs when the force of the injury jams the broken ends of the bone together.	
	<u>Comminuted Fracture</u> -- A comminuted fracture is one in which the broken ends of the bone are shattered into many pieces.	
	<u>Transverse Fracture</u> -- Transverse fracture occurs when the bone is broken perpendicular to its length.	
	(Explain any 4 fractures from the above mentioned fractures)	
33.	a) According to the above fixture total number of round will be _____	4 ×1=
Ans.	4 (four)	4
	b) As shown in the fixture if the winner team plays least number of matches, then which number of team is the winner?	
Ans.	Serial no 15	
	c) What is the formula to calculate number of matches in a knockout tournament?	
Ans.	No of matches =N-1 where N=Number of teams	
	d) If 16 teams are participating in a knockout tournament, then how many byes will be given to draw a knockout fixture?	
Ans.	If the number of participating team is 16, the answer will be 0(zero) byes If the number of participating team is 19, the answer will be 13 byes	
	(OR)	
	d) What is the formula for calculating total number of byes in a knockout tournament?	
Ans.	No. of byes = (Next higher Power of 2– Number of Teams)	

Ans.	<p><u>For Visually Impaired</u> How ‘Sports day’ and ‘Health Run’ contribute to spread health awareness and harmony? Explain.</p> <p>Sports day Modern day challenges and needs of today in education give emphasis on other aspects rather than academics for all round development of students. With this objective in mind, each school celebrates sports day as a mark of focus on physical and mental health awareness. It encourages leadership qualities, management and co-ordination among students, teachers and other staff members. Participation in Sports day is an ongoing process to provide recreation, generate awareness and development of ethical values.</p> <p>Health Run The health runs are conducted by various Social, Govt., Non-Govt. Organisations, Health and Sports departments to create awareness about health and fitness.</p>	2+2=4
SECTION E		
34. Ans.	<p>What do you understand by Aggression in sports? Explain any 2 types of aggression by giving suitable example from sports.</p> <p>Aggression is a type of behaviour aimed at causing physical or psychological harm to another person.</p> <p style="text-align: center;">or</p> <p>The term aggression refers to a range of behaviour that can result in both physical and psychological harm to one self, others or objects in the environment.</p> <p style="text-align: right;">(any other relevant definition)</p> <p>Types of Aggression:</p> <p>1. Instrumental Aggression: This type of aggression is necessary to achieve performance goals and is displayed in a planned manner. The purpose of this aggression is not to cause harm to the opponent but to achieve one’s goals.</p> <p>For example, in Football, the player moves ahead and snatches the ball from the opponent with great aggression to score a goal and not to harm the opponent. This type of aggression is visible in contact games such as Wrestling, Kabaddi and Boxing, aggressive attack can help the player to win.</p> <p>2. Hostile Aggression: In this type of aggression, the purpose is to cause physical or psychological harm. This aggression is usually caused as a reaction to someone’s action. The main aim is to injure the opponent in order to be able to win. In this type of aggression, the person is biased</p>	1+2+2

	<p>and this is caused due to hopelessness.</p> <p>For example, in the game of Kabaddi, after catching the raider, the players try to inflict injury upon him or in a game of hockey or football, hitting with the stick or kicking purposely to make the other person fall, displays hostile aggression.</p> <p>3. Assertive behaviour: Assertive behaviour can also be called aggression, when a player uses it to improve sports performance. These are forceful behaviour not intended to injure the opponent and are within the rules of the games. The intention is to establish dominance rather than harm.</p> <p>Example: A rugby player using aggression to tackle his opponent to win the ball.</p> <p style="text-align: right;">(explain any 2 types)</p>	
35.	<p>What is balanced diet? What is the significance of pre and post competition meals for an athlete? Explain.</p> <p>A Balanced diet consists of all the essential food elements i.e. Proteins, Carbohydrates, Vitamins, Fats, minerals and water in correct proportion.</p> <p style="text-align: center;">OR</p> <p>A Balanced diet contains an adequate amount of all the nutrients required by the body to grow, remain healthy and be disease free. (any other relevant definition)</p> <p><u>Importance of pre competition meals for an athlete</u></p> <ol style="list-style-type: none"> 1. The focus is to fuel up muscle glycogen stores to provide /obtain energy. Therefore, meal should have moderate proteins, low fat, low fibre and high carbohydrate containing food. 2. Proper hydration is must to control fatigue, hunger. 3. It should be light to provide athlete a comfortable gastro intentional state for sports performance. 4. Pre competitive meal should be taken about 2-4 hour before competition. 5. New food/food with known allergies should be avoided. <p><u>Importance of post competition meals for an athlete</u></p> <ol style="list-style-type: none"> 1. The main focus is on recovery of body and reduce chances of injury. 2. Fluids lost during competition have to be replenished. 3. Carbohydrates store i.e. muscle glycogen have to be refilled. 4. Electrolytes i.e. sodium, potassium chloride lost during competition have to be recovered. 5. Within two hour of completion of event a balanced meal including carbohydrates and good quality proteins should be eaten by the athlete. 	1+2+2

36. Ans.	<p>What do you understand by projectile trajectory? Explain the factors affecting projectile trajectory in sports.</p> <p>A projectile is a force that acts under the influence of gravity and air resistance. When any object is projected in the air, these force result into a curved or parabolic path, known as projectile trajectory.</p> <p><u>Factors that affect projectile trajectory:</u></p> <ol style="list-style-type: none"> 1. <u>Angle of projection</u>- When it is 45 degree, maximum horizontal distance is achieved 2. <u>Initial velocity</u> – The horizontal range depends on initial velocity. Greater the initial velocity applied on the projectile during release, greater horizontal distance is achieved. 3. <u>Gravity</u> –It is the force of attraction exerted by the earth. The greater the weight of an object, the greater is the influence of gravity upon it. Gravitational pull stops the upward movement of an object resulting into decreased height of projectile. 4. <u>Air resistance</u> –Surface area, speed, surface of object and mass of object all have an impact on air resistance. 5. <u>Spin</u>- It changes the path of projectile. The amount and direction of spin directly affects the distance that projectile travels because the air pressure acts on the ball. <p style="text-align: right;">(Or any other relevant point)</p>	1+4
37. Ans.	<p>What is Endurance? Explain any two types of Endurance in the basis of duration of the activity with suitable example from sports.</p> <p>Endurance is the ability of the body to sustain a physical activity for longer duration of time.</p> <p style="text-align: center;">Or</p> <p>Endurance is the ability of resist fatigue.</p> <p style="text-align: center;">Or</p> <p>The result of physiological capabilities of an individual to sustain movement over a period of time.</p> <p style="text-align: right;">(any other relevant definition)</p> <p>Following are the types of endurance on the basis of duration of activity:</p> <ol style="list-style-type: none"> 1. Speed Endurance: This is the ability to resist fatigue in cyclic activities that last up to 45 seconds. The classic example of this endurance type is a 400 m sprint in track and field. This type of endurance is majorly dependent on the power and capacity to produce energy. 2. Short-term Endurance: This ability is needed for activities lasting from 45 seconds to about 2 minutes. The most appropriate example for 	1+2+2

	<p>short-term endurance is an 800 m run. This endurance depends majorly on speed endurance and strength endurance.</p> <p>3. Medium-term Endurance: Medium-term endurance is needed to resist fatigue in activities lasting from 2 minutes to about 11 minutes. The most common example of this type is 1500 m and 3000 m run and 100 m rowing. As in short- term endurance, this type of endurance also depends on speed and strength endurance, but to a limited extent.</p> <p>4. Long-term Endurance: This type of endurance is needed for activities that last for more than 11 minutes. This type of endurance is required in events like marathons, cross-country, etc.</p> <p style="text-align: right;">(Any two types)</p>	
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