

Marking Scheme
Strictly Confidential
(For Internal and Restricted use only)
Senior Secondary School Examination, 2026 (XIIth)
SUBJECT NAME: - PHYSICAL EDUCATION (Q.P. CODE : 048/75)

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 Newspaper/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	Ensure that you do not make the following common types of errors committed by the Examiner in the past :- • 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.

MARKING SCHEME
PHYSICAL EDUCATION (Subject Code-048)
(PAPER CODE: 75) (P75048)

Q.No.	EXPECTED ANSWER/VALUE POINTS	Marks
1.	(C) Law of momentum	1
2.	(A) Respiratory system	1
3.	(D) Communication skills	1
4.	(C) a-(iii) b-(i) c-(iv) d-(ii)	1
5.	(C) Mandukasana Or (A) Halasana	1
6.	(B) Fast twitch fibre	1
7.	(A) Maximum effort rule	1
8.	(B) Hypertonia	1
9.	(B) Plate tapping test	1
10.	(C) 600 M – Run/Walk	1
11.	(A) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of the Assertion (A).	1
12.	(C) Logistics Committee	1
13.	(D) Speed Endurance	1
14.	(B) B & C	1
15.	(A) Intramural	1
16.	(C) Egg white	1
17.	(B) Ballistic method	1
18.	(C) Third class lever	1
19.	Q. How does the height of release of an object in the air affect the projectile trajectory? Explain with suitable examples from sports. Ans: Step – 1: When an object is released from a higher point, it travels farther horizontally. At the same speed and angle of release, increasing the release height results in greater overall distance. – (1 mark) Step – 2: Javelin throw, shot put, discus throw – (1 mark) (Any other relevant points)	1+1

20.	Q. Define neuroticism and identify any two behavioural traits that score low on neuroticism. Ans: Step -1: Neuroticism focuses on the emotional stability of an individual. This trait refers to dimensions of personality which range from being poised, calm and composed at one end to nervous anxious and excitable at the other. – (1 marks) Step 2: Calm – (.5 marks) Step 3: Composed. - (.5 marks) (Or any other relevant point)	1+1/2*2=2
21.	Q. What do you understand by a healthy weight? Suggest any two benefits of a healthy weight. Ans: Step -1: A healthy weight is a body weight that is appropriate for a person's height, age and body build. It is generally aroused using the body mass index (BMI). For adults, a BMI between 18.5 – 24.9 is considered a healthy weight - (1 mark) Benefits of healthy weight: Step -2: Reduces the risk of lifestyle diseases. - (0.5 mark) Step – 3: Improves physical fitness (0.5 mark) Alternate answer: A healthy weight is the range at which your body functions optimally with a reduced risk of chronic diseases like heart diseases, diabetes and joint problems. (Or any other relevant point)	1+1/2*2=2
22.	Q. Explain the technique of Sheetali Pranayama. Ans: Step 1: Sit in padmasana or any comfortable position – (.5 marks) Step 2: Roll your tongue into a tube and inhale, slowly through the rolled tube - (.5 marks) Step 3: Close your mouth after inhaling and hold the breadth comfortably for a few seconds (.5 marks) Step 4: Exhale slowly through the both nostrils. Repeat 5-10 rounds (.5 marks)	0.5*4=2
23.	Q. Describe menstrual dysfunction in the Female Athlete Triad. Ans: Step -1: Menstrual dysfunction refers to irregularities or absence of menstrual cycles due to low energy availability often caused by inadequate nutrition or excessive exercise. The body, lacking sufficient fuel, down regulates reproductive hormones to conserve energy. (1 marks) Types of Menstrual Dysfunction: • Primary Amenorrhea: No menstrual period by age 15, despite normal growth and secondary sexual characteristics. (.5 marks) • Secondary Amenorrhea: Menstruation stops from three months or more in someone who previously had regular cycles. (.5 marks)	2
24.	Q. If a person exercises for 80 seconds and his pulse count from 1 to 1.5 minutes after exercise is 70, then calculate his fitness index score using the Harvard Step Test. Ans: Step 1:	2

	$\text{Fitness Index} = \frac{\text{Duration of exercise in seconds} \times 100}{5.5 \times \text{Pulse count from 1–1.5 minutes after exercise}}$ Given: - Duration of exercise = 80 seconds - Pulse count (from 1 to 1.5 minutes after exercise) = 70 Plug into formula: $\text{Fitness Index} = \frac{80 \times 100}{5.5 \times 70} = \frac{8000}{385} \approx 20.78$													
25.	Q. Elucidate micro-cycle and meso-cycle in sports training. Ans: <table border="1"> <thead> <tr> <th>Micro Cycle</th><th>Meso Cycle</th><th>Marks</th></tr> </thead> <tbody> <tr> <td>3 to 10 days (5–10 days for intermediate/high-level athletes)</td><td>3 to 6 weeks</td><td>Step 1: 0.5 + 0.5 mark</td></tr> <tr> <td>Shortest training cycle</td><td>Medium-duration training cycle</td><td>Step 2: 0.5 + 0.5 mark</td></tr> <tr> <td>To manage short-term training loads and recovery</td><td>To achieve specific training objectives</td><td>Step 3: 0.5 + 0.5 mark</td></tr> </tbody> </table> (Any three points from each or any other relevant point)	Micro Cycle	Meso Cycle	Marks	3 to 10 days (5–10 days for intermediate/high-level athletes)	3 to 6 weeks	Step 1: 0.5 + 0.5 mark	Shortest training cycle	Medium-duration training cycle	Step 2: 0.5 + 0.5 mark	To manage short-term training loads and recovery	To achieve specific training objectives	Step 3: 0.5 + 0.5 mark	0.5*6=3
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26.	Q. Differentiate between knockout and league tournaments. Ans: <table border="1"> <thead> <tr> <th>Knockout tournament</th><th>League tournament</th><th>Marks</th></tr> </thead> <tbody> <tr> <td>Player/Team continue to play matches until being defeated</td><td>Player/team will get equal chance to play with each other.</td><td>Step 1: 0.5 + 0.5 mark</td></tr> <tr> <td>Good Teams/Players can be eliminated at early stages</td><td>The true winner emerges from this format</td><td>Step 2: 0.5 + 0.5 mark</td></tr> <tr> <td>It is less expensive</td><td>It is more expensive</td><td>Step 3: 0.5 + 0.5 mark</td></tr> </tbody> </table> (Any three points from each or any other relevant point)	Knockout tournament	League tournament	Marks	Player/Team continue to play matches until being defeated	Player/team will get equal chance to play with each other.	Step 1: 0.5 + 0.5 mark	Good Teams/Players can be eliminated at early stages	The true winner emerges from this format	Step 2: 0.5 + 0.5 mark	It is less expensive	It is more expensive	Step 3: 0.5 + 0.5 mark	3
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27.	Q. Compare and contrast static and kinetic friction. Suggest any four methods to reduce friction. Ans: Step 1: Static Friction occurs when the force applied to an object does not cause the thing to move. (.5 marks) Kinetic Friction is the force that opposes the relative motion between two surfaces in contact as they restrict the movement of each other or opposes the objects motion. (.5 marks) Methods to reduce friction: Steps 2: Polishing (.5 marks)	1+2=3												

	Steps3: Lubricating (.5 marks) Steps 4: Use of ball bearing and wheels (.5 marks) Steps 5: Streamlining (.5 marks)	
28.	Q. Enlist micronutrients. Explain the various categories of vitamins. Ans: Steps 1: Enlist micro nutrients: Vitamins A, B, C, D, E, K and minerals – Macro minerals – sodium, chloride, phosphorus, Micro minerals, Iron, Zinc, Iodine, sulphur. (0.5*2 = 1 marks) Step 2: Vitamins are divided into two categories. (1) Water soluble vitamins: includes all the B-Vitamins and Vitamins C. The number of water-soluble vitamins that body doesn't use passes through the kidneys and leaves the body as urine or stool. The body needs water-soluble Vitamins in frequent, small doses and they are unlikely to reach toxic levels. (1 marks) (2) Fat-soluble Vitamins: includes Vitamins A, D, E and K, fat soluble vitamins are stored in the body cells and are not passed out of the body as easily as water-soluble Vitamins. They are more likely to reach toxic levels if a person takes in too much of these Vitamins. (1 marks)	1+2=3
29.	Q. Elucidate goal setting and explain any two types of goal setting. Ans: Step 1: Goal setting is a mental training technique that can be used to increase an individual commitment towards achieving a specific standard of proficiency on a task within a specified time. It is a process of establishing a level of performance proficiency which should be reached within a prescribed time period is known as goal setting. - (1 mark) OR Goal setting is the process of setting practical and realistic target for achieving some desired result in future. Step 2: Outcome Goal: Give priority and importance to the final outcome of a sporting event. They are uncontrollable, yet attractive and exciting, they are useful in enhancing motivation for the exhausting physical and mental preparation needed to achieve typical outcome goals, such as winning championships or medals. - (1 mark) Step 3: Performance Goal: Focus on achievements of athletes relatively independent of other competitors or teammates. Therefore, they are more flexible and controllable for athletes, which allows them to continually raise and lower goal difficulty levels to remain challenged and successful in their pursuit of exciting outcome goals. (1 mark) (Process goal, Outcome Goal, Performance Goal - explain any two points out of these three)	1+2=3
30.	Describe Kapalbhathi. Mention any two benefits and precautions for Kapalbhathi. Ans: Description of Kapalbhathi	1+ .5*4=3

	Step 1: This involves forceful and fast diaphragmatic breathing. In a comfortable sitting position, one exhales forcefully by contracting the abdomen muscles. The exhalations and inhalations are accompanied with the abdominal movements which take place in quick successions for a number of times depending on one's lungs capacity. - (1 mark) Benefits for Kapalbhathi. Step 2: This is a great cleanse for the respiratory passages including the sinus. (.5 marks) Step 3: It improves respiratory function and promotes circulation. - (.5 marks) Precautions for Kapalbhathi. Step 4: Pregnant women, slipped disc patients and asthma patients should avoid it. (.5 marks) Step 5: It should not be performed during menstruations. (.5 marks) (Explanation of any other relevant points)													
31.	i. (C) Staffing - (1 mark) ii. (A) Finance committee - (1 mark) iii. (A) Planning- (1 mark) iv. (A) (D) Directing - (1 mark)	1x4=4												
32.	i. (A) Short stature - (1 mark) ii. (D) Physical - (1 mark) iii. (C) Dr. Ludwing Guttman - (1 mark) iv. (C) The degree of activity limitation related to their impairment - (1 mark)	1x4=4												
33.	i. (B) Muscle hypertrophy - (1 mark) ii. (B) Scientific training- (1 mark) iii. (C) Glycogen - (1 mark) iv. (C) By inspiring them to stay active - (1 mark)	1x4=4												
34.	Describe any five common postural deformities along with the methods used to correct them. Ans: <table><tr><th>Postural Deformity</th><th>Description</th><th>Corrective Measures</th><th>marks</th></tr><tr><td>Kyphosis</td><td>Excessive outward curvature of the upper spine, causing a hunchback appearance.</td><td>– Strengthening back muscles– Stretching chest muscles– Practicing correct posture– Performing yoga and back extension exercises</td><td>Step 1: 0.5 + 0.5 mark</td></tr><tr><td>Lordosis</td><td>Abnormal inward curve of the lower spine, leading to a swayback posture.</td><td>– Strengthening abdominal muscles– Stretching lower back and hip flexors– Pelvic tilt exercises– Avoiding high heels</td><td>Step 2: 0.5 + 0.5 mark</td></tr></table>	Postural Deformity	Description	Corrective Measures	marks	Kyphosis	Excessive outward curvature of the upper spine, causing a hunchback appearance.	– Strengthening back muscles– Stretching chest muscles– Practicing correct posture– Performing yoga and back extension exercises	Step 1: 0.5 + 0.5 mark	Lordosis	Abnormal inward curve of the lower spine, leading to a swayback posture.	– Strengthening abdominal muscles– Stretching lower back and hip flexors– Pelvic tilt exercises– Avoiding high heels	Step 2: 0.5 + 0.5 mark	1*5=5
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	(Or any other relevant deformity such as round shoulder and knock knee with corrective measures)													
35.	Q. Explain the motivational techniques based on social support and facilitation approaches which help in developing unique motivational techniques. Ans: Step 1: Social Support Strategy: Participation in sports and taking up exercise is greatly influenced by an understanding of the social networking and perception of people around them. Conducive exercise environment, creating drive among people to initiate and maintain sporting behaviour is deeply affected by the societal pressure or support provided to the individual. Positive social support from peer group, family members and friends helps in developing healthy habits and increase participation in sports and exercise. (2.5 marks) Step 2: Facilitation Approach: External support is essential for maintaining long-term motivation among athletes. Awards and incentives help sustain consistency, although at times these may also prove ineffective. Appreciation of present and past performance (Performance Appraisal) boosts self-confidence, while the impact of motivation is maximized only when high-quality facilities (Quality Support) are provided. (2.5 marks)			5										
36.	Q. Explain the purpose, procedure, equipment required and scoring of ‘Arm Curl Test’ and ‘Back Stretch Test’ in the ‘Rikli and Jones Senior Citizen Fitness Test’. Ans: Arm curl test Step 1: Purpose: To determine upper body strength. (0.5 mark)			5										

	Step 2: Equipment: Straight back chair without arms; Dumbbell for men- 8 pounds (3.6kgs) and women- 5 pounds (2.3kgs); stopwatch. (0.5 mark) Step 3: Procedure: The chair should be placed against the wall or somewhere where it gets stabilized. • The individual sits on the chair with back straight, feet on floor, holding dumbbell with dominant hand using handshake grip. • On the command “Go” the individual flexes the elbow or curls the arm with full range of motion then returns back to its initial position. • In the down position dumbbell will return to handshake grip. • The individual can perform as many arm curls as possible in 30 seconds. (1 mark) Step 4: Scoring: Maximum number of correct arm curls in 30 seconds will be counted. (0.5 mark) Back stretch test Step 5: Purpose: To determine upper body flexibility (0.5 mark) Step 6: Equipment: 18 inches ruler (0.5 mark) Step 7: Procedure: In standing position participant will place one hand over the shoulder and one hand middle of the back and try to touch or overlap each other. (1 mark) Step 8: Scoring: Measurement will be taken by measuring the distance between the tips of the middle fingers. If the fingertips touch, then the score is zero. If they do not touch, measure the distance between the finger tips (a negative score), if they overlap, measure by how much (a positive score). (0.5 mark)	
37.	Q. Define speed and explain its types in detail with suitable example from sports. Ans: Step 1: Speed: “The capacity of an individual to perform successive movements of the same pattern at a fast rate”. Or “Speed is the ability to move the body or any body part as fast as possible in the minimum time.” – (1 mark) (Or any other relevant definition) Types of Speed Step 2: Reaction Ability: Reaction ability is the ability to react quickly to a stimulus or signal. It depends entirely on the coordinative abilities of an individual. Different games and sports have other signs like visual, auditory and tactile, to name a few. – (1 mark) OR Step 3: Acceleration Ability: Acceleration ability is the ability to achieve a high locomotion speed from a stationary position. It depends significantly on the explosive strength, technique, and movement frequency – (1 mark) OR Step 4: Movement Speed: Movement speed can be defined as the ability to perform a single movement in the minimum possible time. – (1 mark) OR Step 5: Locomotor Ability: Locomotor ability is the ability to maintain maximum speed when in motion for the maximum possible duration or distance. – (1 mark) OR Speed Endurance: Speed endurance is a combination of two words, speed and endurance. It is the ability to do the movement with high speed for a longer duration, i.e., under fatigue – (1 mark) (Any four types form above)	1+4=5

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