

LAST-HOUR CRAM SHEET · Physical Education

CBSE Class 12 Physical Education (048) · Theory 70
+ Practical 30 · Read this in the 60 minutes before
you walk in

A. The Paper at a Glance

Unit	Name	Marks	Priority
1	Management of Sporting Events	5 + 4 b*	Fixtures are drawn, not described
2	Children and Women in Sports	7	Deformities + Female Athlete Triad
3	Yoga as Preventive Measure	6 + 1 b*	Procedure / Benefits / Contraindications
4	Physical Education for CWSN	4 + 4 b*	ADHD, SPD, ASD, ODD full forms
5	Sports and Nutrition	7	Pre / During / Post competition diet
6	Test and Measurement in Sports	8	Khelo India + Rikli & Jones lists
7	Physiology and Injuries	4 + 4 b*	Effects of exercise; strain vs sprain
8	Biomechanics and Sports	10	LARGEST UNIT — draw everything
9	Psychology and Sports	7	Big Five + aggression types
10	Training in Sports	9	Methods: name + how + example

STRATEGY Unit 8 (10) + Unit 10 (9) +

Unit 6 (8) = 27 of 70. These three are almost pure lists and diagrams — the highest marks per hour in the paper. *b** questions are competency-based: tactile diagram, data interpretation or case study.

SECTION STRUCTURE — from the official 2026-27 sample paper

Section	Questions	Each	Attempt	Worth
A	1–18	1 mark	all 18	18 — MCQ, no choice
B	19–24	2 marks	any 5 of 6	10 — 60–90 words
C	25–30	3 marks	any 5 of 6	15 — 100–150 words
D	31–33	4 marks	all 3	12 — case studies, internal choice
E	34–37	5 marks	any 3 of 4	15 — 200–300 words

$18 + 10 + 15 + 12 + 15 = 70$. You actually answer **34 of the 37** questions. *Why the unit table above adds to 80, not 70: the paper prints 80 marks, but sections B, C and E give you more questions than you answer. The unit weightages are marks printed; your paper*

is still out of 70. Both numbers are right.

New in 2026-27: Section D now says “There is an internal choice available.” The 2025-26 paper did not. So the case studies are no longer all compulsory — read them before you pick.

Sections B, C and E let you drop questions. Scan all of them first and answer your strongest; there is no credit for attempting extras.

B. Every Formula and Number

FIXTURES (Unit 1)

Knock-out matches = $N - 1$

Byes = Next higher power of 2 – N

Single league = $N(N-1)/2$ Double league = $N(N-1)$

BODY MEASURES

BMI = Weight (kg) ÷ Height² (m) — <18.5 under · 18.5–24.9 normal · 25–29.9 over · 30+ obese

Waist-Hip Ratio = Waist ÷ Hip — risk above 0.90 (men), 0.85 (women)

Cardiac Output = Stroke Volume × Heart Rate

TESTS

Harvard Fitness Index = $(\text{Duration in sec} \times 100) \div (2 \times \text{sum of 3 pulse counts})$

Barrow GMA = $2.2(\text{Broad Jump}) + 1.6(\text{Medicine Ball}) - 1.0(\text{Zig-Zag Run})$

NUTRITION

Carbohydrate 4 kcal/g · **Protein** 4 kcal/g · **Fat** 9 kcal/g

BIOMECHANICS

F = m × a (Newton's second law)

Best projectile angle = 45° when release and landing heights are equal

C. The Lists You Must Recite

Topic	The list
Event management functions	POSDC — Planning, Organising, Staffing, Directing, Controlling
7 postural deformities	Knock knees · Bow legs · Flat foot · Round shoulders · Lordosis · Kyphosis · Scoliosis
Female Athlete Triad	Eating disorders → Amenorrhoea → Osteoporosis
5 lifestyle diseases	Obesity · Diabetes · Asthma · Hypertension · Back Pain & Arthritis

4 disorders (CWSN)	ADHD Attention Deficit Hyperactivity · SPD Sensory Processing · ASD Autism Spectrum · ODD Oppositional Defiant
3 disability games	Special Olympics Bharat (intellectual) · Paralympics (physical) · Deaflympics (hearing, oldest 1924)
Khelo India 5–8 yrs (3)	BMI · Flamingo Balance · Plate Tapping
Khelo India 9–18 yrs (6)	BMI · 50 m Dash · 600 m Run/Walk · Sit & Reach · Partial Curl Up · Push Ups
Rikli & Jones (6)	Chair Stand · Arm Curl · Chair Sit & Reach · Back Scratch · 8 Foot Up & Go · 6 Minute Walk
Barrow (3)	Standing Broad Jump · Zig-Zag Run · Medicine Ball Put
Newton's laws	Inertia · Acceleration ($F=ma$) · Action-Reaction
Big Five	OCEAN — Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism
3 aggression types	Hostile (harm) · Instrumental (goal) · Assertive (within rules)
4 psychological attributes	Self-Esteem · Mental Imagery · Self-Talk · Goal Setting
7 coordinative abilities	Orientation · Coupling · Reaction · Balance · Rhythm · Adaptation · Differentiation
First aid	PRICE — Protection, Rest, Ice, Compression, Elevation

D. The Pairs That Decide Marks

NEVER MIX THESE UP

- **Knock knees** = knees touch, ankles apart. **Bow legs** = knees apart, ankles touch.
- **Lordosis** = lower back, inward → forward bending. **Kyphosis** = upper back, outward → backward bending. **Scoliosis** = sideways → lateral bending. *Correction is always the opposite direction.*
- **Strain** = muscle or Tendon. **Sprain** = Ligament at a joint.
- **Laceration** = irregular tear. **Incision** = clean straight cut.
- **Hypertrophy** = fibres get bigger. *Exercise never increases fibre number.*
- **Intramural** = within the institution. **Extramural** = between institutions.
- **Interval** = planned, timed, fixed recovery. **Fartlek** = unplanned, athlete varies pace on natural terrain.
- **Isometric** = no movement. **Isotonic** = movement. **Isokinetic** = constant speed, needs a machine.

- **Intrinsic** motivation = from within. **Extrinsic** = external reward.
- **ADHD** = child **cannot** focus. **ODD** = child **will not** obey.
- **Static** equilibrium = at rest. **Dynamic** = moving at constant velocity.
- **Food intolerance** = digestive, not dangerous. **Food allergy** = immune, can be fatal.
- **Micro nutrients** give **NO** energy — only carbs, protein and fat do.

E. Facts You Must Not Get Wrong

MEMORISE EXACTLY

- Third class lever is the most common in the body (biceps curl). 1st = Fulcrum middle, 2nd = Resistance middle, 3rd = Effort middle.
- Deaflympics is the oldest (Paris, 1924), not Paralympics. Hearing aids are banned during Deaflympics.
- Paralympics: IPC, 1989, motto "Spirit in Motion", symbol three Agitos.
- Circuit training: Morgan and Adamson, 8-12 stations.
- Fartlek is Swedish for "speed play".
- Stability rises with a lower CG, wider base and greater weight.
- Hypertension = above 140/90, the "silent killer". Avoid Halasana, Chakrasana, Kapalbhati.
- Mandukasana is the key diabetes asana (presses the pancreas). Anuloma-Viloma is the key asthma pranayama. Shavasana for hypertension.
- Pre-competition meal: HIGH carb, LOW fat, LOW fibre, 3-4 hours before.

- **Post-competition:** carb + protein within 30 min to 2 hours, ratio about 3:1 or 4:1.
- **Fat-soluble vitamins:** A, D, E, K. Rest are water-soluble.
- **WHO:** 5–17 yrs = 60 min daily. 18–64 = 150–300 min per week.
- **Rockport** = one mile walk → VO_2 max.
Harvard = step test → fitness index.
- **Jung** gave introvert / extrovert / ambivert.

F. Master Question Triggers

If the question says...	Answer	Unit
"11 teams, knock-out"	5 byes, 10 matches	1
"inter-school competition"	Extramural	1
"knees touch, ankles apart"	Knock knees → horse riding, Padmasana	2
"spine curved sideways"	Scoliosis → Trikonasana	2
"thin athlete, no periods, stress fracture"	Female Athlete Triad	2
"asanas for a diabetic"	Mandukasana, Bhujangasana, Kapalbhathi	3

"high BP — which asana to avoid?"	Halasana, Chakrasana, Kapalbhathi	3
"cannot sit still, blurts out answers"	ADHD	4
"avoids eye contact, resists change"	ASD	4
"visual signals, no hearing aids"	Deaflympics	4
"night blindness" / "goitre" / "scurvy"	Vitamin A / Iodine / Vitamin C	5
"meal 3 hours before the match"	High carb, low fat, low fibre	5
"balance test for a 6-year-old"	Flamingo Balance Test	6
"lower body strength in the elderly"	Chair Stand Test	6
"twisted ankle, ligament torn"	Sprain → PRICE	7
"resting pulse of athlete is 45"	Bradycardia	7
"swimmer pushes water back"	Newton's third law	8
"standing on tiptoe"	Second class lever	8
"wrestler crouches, feet apart"	Lower CG + wider base → stability	8
"spikes on shoes" / "wax on skis"	Friction advantage / reducing friction	8
"punched opponent in anger"	Hostile aggression	9
"hard tackle to win the ball"	Instrumental aggression	9

"visualised the jump beforehand"	Mental imagery	9
"pushing against a wall"	Isometric exercise	10
"varied pace at will over hills"	Fartlek	10
"held the stretch 20 seconds"	Static stretching	10
"partner resisted, then stretched further"	PNF	10

G. How to Write for Marks

Marks	What the examiner wants
1	One term, one full form, or one formula.
3	Three named points with a one-line explanation each.
5	Five points with bold headings + example. Draw the diagram if the topic has one.
b*	Competency question — fixture diagram, data interpretation or case study. Name → define → quote the case.
Asanas	Always three headings: Procedure / Benefits / Contraindications.
Diagrams	Knock-out fixture · levers with F-A-R labelled · projectile parabola with angle · base of support. Each carries its own mark.

THE THREE HABITS THAT SAVE MARKS — **1.** For every test, add **what it measures** — the most commonly dropped mark. **2.** For every deformity, name **two corrective asanas** — "do stretching" earns nothing. **3.** For

every “effect of exercise”, use the **technical term** —
hypertrophy, bradycardia, stroke volume, VO_2 max.