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Course Code: 3607

Program: MA/MEd Special Education

Semester: Autumn 2026

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ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD

(Department of Special Education)

Course: Physical Handicaps-I (3607) • Level: MA/MEd Special Education

Semester: Autumn 2026

Assignment No. 2 (Units 5–9)

Total Marks: 100 • Pass Marks: 50

SOLVED ASSIGNMENT GUIDE — For Study & Reference

Note: This guide is prepared for study and reference purposes only. Students are advised to read the relevant units of the course book, understand the concepts, examples and arguments given here, and then write the assignment in their own words. Copying this guide word for word is not allowed and will not develop the understanding of special education this course is designed to build.

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Question 1: Sports and Physical Activities for Children with PHC (20 Marks)

Question as printed: Discuss the importance of sports and physical activities for children with physical and health impairments and the adaptations required to include them. Explain the role of ability assessment, rule modification, adapted equipment, peer assistance, safety planning, and the development of inclusive attitudes.

Introduction

Sport is frequently the first thing quietly taken away from a child with a physical or health impairment — withdrawn from games 'for safety', excused from physical education, left to

watch from the side of the field. This is exactly backwards. Children with PHC, whose daily lives are often unusually sedentary and medically supervised, stand to gain more from physical activity than almost any other group, and modern adapted physical education shows that nearly every sport can be opened to them through assessment, adaptation and planning. This answer explains why sports matter for these children and how the main adaptation mechanisms — ability assessment, rule modification, adapted equipment, peer assistance, safety planning and inclusive attitudes — make participation real.

Importance of Sports and Physical Activities

The benefits are physical first of all: regular activity strengthens muscles and bones that impairment and disuse weaken, maintains joint range and prevents contractures, improves heart and lung fitness in children who may sit for most of the day, helps control weight (a serious secondary risk for wheelchair users), improves posture, balance, coordination and wheelchair or crutch skills, and reduces constipation and other secondary problems of immobility. The psychological benefits are equally weighty: sport is one of the few arenas in which a disabled child can experience visible competence, take a body that is usually a site of treatment and turn it into a source of achievement and pride; success raises self-esteem, discharges frustration and teaches emotional control in winning and losing. Socially, games create the most natural setting for friendship, teamwork, leadership and belonging — the child is a team-mate, not a patient. Educationally, active children attend better, concentrate longer and miss fewer days through secondary illness. Finally, sport in childhood is the gateway to a lifetime habit: adults with disabilities who were active at school are far more likely to remain

active, healthy and socially connected, and school sport is also the seedbed from which Paralympic and Special Olympics pathways grow for those with talent.

Ability Assessment

Adaptation begins with knowing what the child can do. Ability assessment in this context is functional and specific: medical clearance and any physician-imposed restrictions; motor assessment of strength, range of movement, balance, coordination, endurance and mobility (including wheelchair skills); and observation of what the child actually does in play. Assessment must be ability-focused rather than disability-focused — its purpose is to find the entry point into activity, not to certify exclusion. The results guide grouping, the choice of activities, the adaptations required and the child's individual goals in physical education, and they must be reviewed as the child grows, gains skill or experiences changes in condition. Parents and the physiotherapist contribute essential information, and the child's own preferences matter: assessment that ignores what the child enjoys produces programmes that are technically suitable and practically abandoned.

Rule Modification

Rules are human inventions and can be re-invented so that a game includes rather than excludes. Typical modifications include: enlarging or reducing the playing area; lowering nets, baskets and targets; allowing extra bounces in ball games (as in wheelchair tennis); shortening distances and playing time; permitting a runner or a buddy for a child who cannot run bases; modifying scoring so that different roles earn points; reducing player numbers to increase involvement (small-sided games); and allowing walking instead of running or seated play for all

players in a particular game. The art is to modify the minimum necessary, keep the game's essential character and challenge, and — wherever possible — apply modifications to the whole group or rotate them, so that adaptation does not become a public badge of difference. Well-designed modifications often improve the game for everyone, which is the philosophy of universal design applied to sport.

Adapted Equipment

Equipment adaptation removes the physical mismatch between the child and the standard kit. Examples include lighter, larger, softer or slower balls (and audible balls with bells for children with associated visual difficulties); bats and racquets with built-up grips or straps; gloves with Velcro; ramps for bowling; beeper bases; wheelchairs designed for sport; standing frames that allow a child to play at table height; flotation aids and hoists for swimming; and protective equipment fitted to braces or prostheses. Adaptations should be as ordinary-looking as possible, safe, and progressively challenging — equipment that makes a task slightly easier today should be reviewed as skill grows. Schools with limited budgets can improvise extensively: balloons and beach balls slow a game down beautifully, cardboard targets and chalk lines cost nothing, and local fabrication of grips and ramps is a well-established practice in low-resource settings.

Peer Assistance

Peers are the most abundant resource in any school. In adapted sport, peer assistance takes planned forms: a buddy who pushes or guides, a partner in paired practice, team-mates assigned rotating support roles, and peer tutors who demonstrate skills. Properly organised,

this benefits both children — the assisted child gains participation and friendship, the assisting child gains understanding, responsibility and leadership. Two cautions apply. Assistance must empower rather than replace: the peer does what the child cannot do, not what the child can do slowly. And roles should rotate, so that helping does not harden into a fixed charity relationship and the child with PHC also experiences giving help — keeping score, coaching, organising equipment and leading warm-ups are contributions he can make to others.

Safety Planning

Inclusion without safety planning is irresponsible; safety planning without inclusion is overprotection. A sound plan includes: medical information and clearance for each activity; knowledge of individual risks (seizure, fragile bones, shunt, asthma, fatigue, overheating in children who cannot sweat normally); warm-up and gradual progression; correct technique and supervision ratios; safe surfaces, spacing and equipment checks; hydration and rest breaks scheduled in advance; an accessible route to first aid and staff who know the emergency procedures described in this course; and clear stop-signals agreed with the child. Just as important is proportionality: risk assessments should ask 'how can this be done safely?' rather than 'should this child be excluded?', and children themselves should be taught to recognise and report pain, dizziness and exhaustion — self-monitoring is a safety skill for life.

Development of Inclusive Attitudes

Adaptations fail in a school whose attitudes remain exclusionary. Developing inclusive attitudes is therefore a deliberate educational task: disability-awareness sessions that present impairment factually and sportingly; visible celebration of disabled athletes and of the school's

own adapted events; language discipline (the child first, the impairment second; never the language of pity or of 'special' separateness); mixed-ability events in which adaptation is a normal feature for all; and teachers and coaches who visibly expect the child with PHC to participate and improve. Attitudes are changed most powerfully by successful shared experience: one season of genuinely mixed sport does more than a year of lectures, which is why attitude development and practical adaptation must proceed together.

Conclusion

Sports and physical activities are a necessity, not a luxury, for children with physical and health impairments: they build the strength, health, confidence and friendships that impairment and immobility otherwise erode. Inclusion in sport is achieved by a recognisable method — assess abilities, modify rules minimally and intelligently, adapt equipment, organise peer assistance that empowers, plan safety proportionately, and cultivate inclusive attitudes through shared success. A school that masters this method gives the child with PHC something medicine cannot prescribe: the experience of being an athlete among athletes.

Question 2: Curriculum and Material Modification (20 Marks)

Question as printed: Explain the concept of curriculum and material modification for children with physical and health impairments. Discuss accessible content, adapted worksheets, alternative response modes, assistive technology, visual supports, task simplification, and individualized goal-setting.

Introduction

A child with a physical impairment frequently has ordinary intelligence trapped behind extraordinary mechanics: he may understand the science lesson perfectly yet be unable to turn the book's pages, hold the pencil for the worksheet, or finish the test before fatigue defeats him. Curriculum and material modification is the discipline of removing such mechanical barriers while keeping the learning intact. Its governing principle is simple to state and demanding to apply: change the means of access and expression as much as necessary; change the intellectual expectations only where an individual child's learning profile genuinely requires it.

The Concept of Curriculum and Material Modification

Modification operates at several levels, which should be distinguished. At the broadest level, curriculum modification concerns what is taught: adjusting pace and sequence, prioritising essential content, adding functional and therapy-linked goals, or (for the minority with additional intellectual disability) simplifying objectives themselves. Material modification concerns the physical and presentational form of learning resources: print size, layout, format, tools and technology. Response modification concerns how the learner shows what he knows. In practice the teacher works with a hierarchy: first make the standard material accessible; if that is insufficient, adapt its format; if still insufficient, adapt the task; and only as a last step, and on evidence, adapt the objective. This hierarchy protects the child from the commonest error in this field — quietly lowering the curriculum of an intellectually able child merely because his hands or body are impaired.

Accessible Content

Content is accessible when the child can perceive it, reach it and process it at a workable pace. Practically this means: books and boards positioned within the child's reach and line of sight (with book stands, slant boards and page turners where needed); print that is clear, well-spaced and available in enlarged form; lessons presented through more than one channel — spoken, written, demonstrated, pictorial — so that a child who misses one channel catches another; instructions given in short steps and checked for understanding; extra time built into the plan rather than begged at the end; and content chunked so that a child with limited stamina can complete meaningful units of work within his energy budget. Accessibility also has a timetabling dimension: heavy writing tasks should not all fall in one part of the day for a child whose hand fatigues, and therapy appointments should not repeatedly consume the same subject.

Adapted Worksheets

The worksheet is where modification becomes concrete. Adaptations include enlarging print and spacing; reducing the number of items per page while keeping the skill coverage, so the page is finishable; providing wider lines, boxes and writing spaces matched to the child's motor control; replacing handwriting-heavy formats with circling, matching, underlining, cutting-and-sticking or selecting from word banks where the handwriting itself is not the skill being taught; using high-contrast, uncluttered layouts with one task type per page; pre-organising the page (numbered steps, worked examples, partially completed items) so that working memory is spent on learning, not on deciphering layout; and producing the sheet in digital form where the

child works on a device. The adapted worksheet should look respectable at every age — an adolescent's sheet must not look like a young child's — because dignity is part of accessibility.

Table 1: Material modifications and the barriers they remove

Barrier	Modification
Cannot hold standard pencil	Built-up or triangular grip, pencil held in holder, or keyboarding accepted for written work.
Slow, fatiguing handwriting	Fewer copied items, word banks, oral or typed responses, extra time, scribe for long answers.
Cannot turn pages / hold book	Book stand, page turner, spiral binding, digital text with switch or touch access.
Poor reach and positioning	Slant board, adjusted desk height, materials placed within functional reach in class and library.
Visual-perceptual difficulty with cluttered pages	Enlarged, high-contrast, uncluttered worksheets; one task per page; reading windows and line guides.
Cannot perform practical steps in science / art	Adapted tools, partner for the physical step while the child directs and records; switch-operated equipment.

Alternative Response Modes

If the only accepted evidence of learning is fast, neat handwriting, many children with PHC will appear to know far less than they do. Alternative response modes separate knowledge from mechanics: oral answers and presentations; pointing or eye-gaze selection; multiple-choice and

matching formats; typing and word processing; speech-to-text software; recorded answers; demonstration and practical performance; and, for examinations and long tasks, a trained scribe or amanuensis working under clear rules. The teacher's duty is to choose the mode that reveals the child's real attainment for each purpose — handwriting practice where handwriting is the objective, alternative modes where it is merely the obstacle — and to ensure that examination boards' access arrangements (extra time, rest breaks, scribe, adapted papers) are applied for well before the examination season.

Assistive Technology

Assistive technology (AT) is the systematic extension of the same idea: any item, equipment or system that increases, maintains or improves the functional capabilities of the child. Low-tech AT includes grips, stands, adapted scissors and communication boards; mid-tech includes recorders, simple switches and battery-operated devices; high-tech includes computers with alternative access (trackballs, joysticks, eye-gaze, voice recognition), AAC devices and power mobility. Effective AT use follows a cycle: assess the child-task-environment fit, trial the device, train the child and the staff, integrate it into daily routines, and review — because abandoned devices are a notorious waste in this field, usually abandoned not because they failed technically but because selection ignored the child's preferences or nobody was trained. AT decisions belong in the IEP and should involve the occupational therapist and the family, so that the same system serves at home and at school.

Visual Supports and Task Simplification

Visual supports make the invisible structure of learning visible: picture and written schedules showing the day's sequence; step-by-step visual instructions for multi-stage tasks; graphic organisers that show how ideas connect; colour coding of materials and places; labelled storage so the child can be independent in finding and returning equipment; and worked examples displayed for reference. They are especially valuable where PHC is accompanied by perceptual, organisational or communication difficulties, but in truth they help every learner. Task simplification is the companion strategy: analysing a task into steps and teaching or presenting them in sequence; reducing simultaneous demands (new content with an easy format, or familiar content with a new format — not both at once); shortening tasks to the child's stamina while preserving their core; and providing models and partially completed examples. Simplification must be aimed at the process, not automatically at the standard: the question is always 'what is stopping this child from showing the learning?', not 'how little can we ask?'

Individualised Goal-Setting

Modification is steered by individualised goals. Within the IEP, goals for a child with PHC typically span three strands: access goals (positioning, mobility, technology use), curriculum goals (the academic programme with its stated adaptations) and independence goals (self-care, organisation, self-advocacy). Good goals are specific, measurable, achievable, relevant and time-bound, and they are set with the child and parents, not merely for them. Goal-setting protects modification from drifting into vagueness: if the goal is that by December the child will complete science worksheets independently using a word bank and slant board within the

lesson time, then materials, technology and review all have a clear target, and progress — or the need to change the approach — becomes visible to the whole team.

Conclusion

Curriculum and material modification is the practical craft that makes inclusion educative rather than merely physical. Accessible content lets the child reach the learning; adapted worksheets and alternative response modes let him work with it and show what he knows; assistive technology extends his functional reach; visual supports and careful task simplification manage the load on process while protecting standards; and individualised goal-setting keeps the whole system aimed, measurable and reviewed. Done well, modification changes everything about the child's school day except the thing that matters most — the expectation that he will learn.

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Question 3: Major Aspects of the Curriculum for Children with PHC (20 Marks)

Question as printed: Describe the major aspects that should be included in the curriculum for children with physical and health impairments. Explain how academic learning, communication, mobility, social skills, daily living skills, problem solving, self-advocacy, and independence can be integrated into instruction.

Introduction

The curriculum for children with physical and health impairments must answer two demands at once. These children are entitled to the same academic curriculum as their peers — most have

unimpaired intellects — and they also need a set of functional competences that other children acquire incidentally but which impairment can block: mobility, communication, daily living, self-advocacy. A curriculum that serves only the first demand leaves the child educated but dependent; one that serves only the second leaves him trained but uneducated. The art of curriculum design in this field is integration: weaving the functional strands into the ordinary instructional day so that each strengthens the other.

Academic Learning

Academic learning — language, mathematics, science, social studies and the rest of the general curriculum — remains the backbone. The principles are full entitlement (the same topics and, wherever possible, the same standards), adapted access (as detailed in the discussion of modification), pace adjusted to stamina and to time lost through illness, hospitalisation and therapy, and continuity arrangements for absence: work sent to hospital or home, hospital-school liaison and planned re-entry after long absences so that medical episodes do not silently become educational failure. For the minority of children with PHC who also have intellectual disability, academic content is prioritised functionally — literacy and numeracy for daily life first — but the decision to re-route academics must rest on cognitive assessment, never on the physical diagnosis alone.

Communication

Communication is a curriculum area in its own right for children whose speech is affected, and a medium for all other learning for every child. Its content includes developing speech and language with the speech therapist; learning and using an AAC system fluently (vocabulary,

speed, repair strategies when misunderstood); listening and comprehension; social communication — conversation, turn-taking, asking questions in class; and the written communication that modern life requires. Integration means that communication goals are practised across the day: the communication device is present in mathematics as well as language lessons, staff in every subject know how the child expresses 'I don't understand', and peers are taught to be patient, competent communication partners. A child whose communication works only in the therapy room has not yet been given a voice.

Mobility

Mobility — moving oneself through the world — is taught, not merely provided. Curriculum content includes wheelchair skills (propulsion, transfers, kerbs, doors, public transport), crutch and walker techniques, orientation and safe movement around school and community, physical fitness and posture management, and the care and basic maintenance of one's own equipment. Integration is achieved by treating real journeys as lessons: travelling to the library becomes mobility practice with a purpose; physical education builds the strength and skill that mobility requires; and independence is progressively expected — the child who can wheel himself to class is not pushed by an aide for the adult's convenience. Mobility goals are set with the physiotherapist and reviewed as the child grows and as equipment changes.

Social Skills

Social competence decides whether competence in other areas ever gets used. The social curriculum covers friendship skills, group work and play, understanding social rules and others' feelings, managing curiosity, staring and intrusive questions about disability, handling teasing

and bullying (both as target and as member of a group that rejects it), and age-appropriate behaviour in public and community settings. Integration is mostly a matter of engineering real social participation — cooperative group tasks with genuine roles, shared extracurricular activities, responsibility and leadership opportunities — supported by explicit teaching and discussion where a skill is missing. Social goals should appear in the IEP with the same seriousness as academic ones, because for adult outcomes — employment, relationships, community life — they carry at least equal weight.

Daily Living Skills

Daily living (self-care) skills — toileting, eating, dressing, grooming, personal hygiene, simple food preparation, money use and care of belongings — form the functional core discussed under independent living. In curriculum terms they require allocated teaching time, task-analysed programmes, adapted equipment, and home-school consistency, and they should be scheduled with dignity (personal care teaching must never consume the lessons the child most enjoys as a routine matter, and privacy increases with age). Integration means connecting these skills to academic learning where natural: cooking activities carry measurement and reading of instructions; shopping practice carries money mathematics and social communication; personal timetables carry time concepts. Such links give functional teaching academic depth and academic teaching functional meaning.

Problem Solving

Children with PHC meet practical problems daily that their peers never face: a lift is broken, a wheelchair punctures, a new building has steps, a stranger must be asked for a specific kind of

help. Problem solving should therefore be an explicit curriculum strand: identifying the problem, generating options, judging safety and acceptability, choosing, acting and reviewing. It is taught through real incidents (debriefed calmly), through scenario discussion and role play, through classroom problem-solving in academic subjects, and through gradually reducing adult rescue so that the child builds a personal history of coping. The goal is a young person whose first response to a barrier is strategy, not helplessness — a disposition that predicts adult independence better than almost any single skill.

Self-Advocacy

Self-advocacy is the ability to understand one's own condition and rights, to state one's needs clearly, and to secure reasonable support without apology or aggression. Its curriculum content grows with age: naming and explaining one's impairment in simple terms; knowing what help one needs and asking for it precisely ('I need the passage read aloud', not silent struggle); participating in one's own IEP and transition meetings; understanding disability rights and the concept of reasonable accommodation; and disclosing disability appropriately to teachers, friends and eventually employers. Integration means adults deliberately handing over advocacy: the child, not the parent, reports the broken ramp; the student, not the teacher, reminds the substitute about her seating plan. Each act of self-advocacy is also communication, problem solving and independence in action, which is why it is best understood as the capstone of the whole curriculum.

Independence as the Integrating Aim

Independence is not one strand among eight; it is the aim that binds them. Every strand should be taught in the way that maximises the child's own control — prompts faded systematically, choices offered constantly, responsibilities increased year by year, and the least assistance used that the task allows. Teachers audit their own practice with a simple question: 'Am I doing for this child anything he could learn to do, or direct, himself?' Schools also integrate the strands through structures: a single IEP in which academic, mobility, communication and independence goals sit side by side; timetabling that treats therapy and functional teaching as part of education rather than interruptions to it; and review meetings that judge the programme by the child's growing autonomy as well as by test results.

Conclusion

The curriculum for children with physical and health impairments is the general curriculum plus a deliberately taught functional repertoire — communication, mobility, social skills, daily living, problem solving and self-advocacy — integrated into ordinary instruction rather than bolted on, and unified by the aim of independence. Academic learning gives the child knowledge and qualifications; the functional strands give him the power to use them in the world. A school that holds both together, in one plan and one school day, offers the child with PHC not a reduced education but a complete one.

Question 4: Physical Education and Training Programmes for Children with PHC (20 Marks)

Question as printed: Discuss physical education and training programs for children with physical and health impairments. Explain the process of motor skills assessment, ability-based grouping, activity modification, warm-up and cool down routines, injury management, and home-based practice.

Introduction

Physical education (PE) is not a recreational extra for children with physical and health impairments; it is a therapeutic, educational and social necessity. These children are at high risk of secondary conditions — weakness, contractures, obesity, poor cardiovascular fitness and social isolation — that structured physical activity directly counteracts. A well-designed PE and training programme is built like any good educational programme: it starts with assessment, groups learners sensibly, modifies activities intelligently, structures every session safely, manages injury competently and extends practice into the home. This answer discusses each element in turn.

Motor Skills Assessment

Assessment is the foundation. Before a child joins a programme, the team establishes: (1) medical status — diagnosis, physician's clearance, activity restrictions, medication and emergency considerations; (2) gross motor function — posture, sitting, standing, walking or wheelchair mobility, balance, running and jumping where applicable; (3) fundamental

movement skills — throwing, catching, kicking, striking, rolling and swimming readiness; (4) physical fitness components — strength, flexibility, endurance and body composition; (5) fine motor and coordination skills relevant to handling equipment; and (6) the child's interests, confidence and previous experience. Standardised motor batteries, physiotherapist reports, structured observation checklists and simple functional tests (timed wheelchair propulsion, distance thrown, duration of activity before fatigue) are combined, because no single test captures a physically impaired child's ability. Results are recorded as an ability profile — what the child can do now — which becomes the baseline for individual goals, grouping and later measurement of progress. Assessment is repeated at planned intervals and whenever the condition changes (growth spurts, surgery, new equipment), because in this population ability is a moving target.

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Ability-Based Grouping

Grouping converts assessment into teachable classes. Ability-based grouping places children with similar functional levels together for a given activity so that instruction, pace and challenge fit everyone: a child learning basic wheelchair propulsion should not be drilled alongside skilled wheelchair racers, and a highly able child should not be held back by a group still mastering ball familiarisation. Skilful grouping is flexible and activity-specific — the same child may be in the advanced group for swimming, where his impairment matters little, and the foundation group for field games. Grouping by ability must never become permanent labelling or a return to segregation by diagnosis: groups are reviewed as skills develop, mixed-ability cooperative activities remain part of the programme, and grouping decisions are explained to children and

parents in terms of learning needs, not worth. Class size, adult support and space are planned around the groups' needs, with the most dependent groups receiving the closest supervision.

Activity Modification

Activity modification is the teacher's main instrument for matching the programme to the group. The standard variables are: rules (extra bounces, modified scoring, walking instead of running); space (smaller courts, shorter distances, zoned areas); equipment (balls of different size, weight, speed and sound; adapted bats, ramps and targets); time (shorter bouts, more frequent rests, extended overall duration); roles (rotating positions including officiating, coaching and scoring, so that a child having a low-energy day still participates); and instruction (demonstration, simplified language, visual cues, peer modelling). The STEP-type approach — adjusting Space, Task, Equipment and People — gives teachers a quick planning framework. Modifications are decided in advance from the assessment profile, written into lesson plans, and reviewed against the twin tests of participation and progress: an activity is well modified when every child is active, challenged and succeeding most of the time — not merely present.

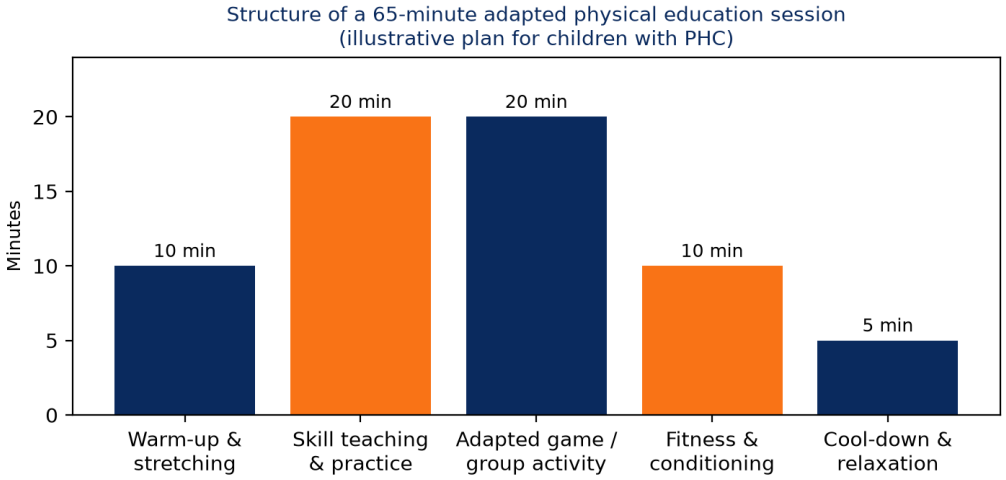


Figure 1: The structure of an adapted physical education session, balancing instruction, activity and recovery.

Warm-Up and Cool-Down Routines

Warm-up and cool-down are clinically important for this population, not ceremonial. A proper warm-up (about ten minutes) raises body temperature and circulation gradually, takes joints through their available range, stretches muscles prone to tightness — hamstrings, hip flexors and calves in many wheelchair users and children with cerebral palsy — and rehearses the session's key movements at low intensity; it also gives the teacher a daily check on pain, stiffness, skin or equipment problems. For children with spasticity, slow sustained stretching and gentle rhythmic movement reduce tone before activity; sudden stretching or bouncing movements are avoided. The cool-down reverses the process: activity intensity is reduced gradually, breathing and heart rate settle, stretching is repeated while muscles are warm (the best moment for range-of-movement work), and the session ends with relaxation and a brief review of achievements. Children with health impairments who overheat, fatigue suddenly or have cardiac or respiratory limits need individually adjusted routines — shorter warm-up peaks, shaded rest points, hydration — as specified in their health plans.

Injury Management

Injury prevention begins with assessment, correct equipment, proper technique, appropriate progression (load increased gradually, roughly by small weekly steps), safe surfaces and vigilant supervision. When injury occurs, staff follow first-aid principles: stop the activity, assess, apply the standard soft-tissue procedure of protection, rest, ice (cold pack), compression and

elevation for sprains and strains, immobilise suspected fractures without moving the limb, and refer for medical assessment whenever there is significant pain, swelling, deformity, head injury or doubt. Certain risks are specific to this population and must be planned for: fractures in children with low bone density can occur with minimal trauma; skin breakdown in insensate areas can follow friction from equipment; overuse injuries of shoulders in wheelchair athletes threaten their everyday mobility and therefore deserve special caution; and children with shunts, epilepsy or cardiac conditions need their individual emergency plans known to every supervising adult. Every injury is recorded, parents are informed the same day, and return to activity follows medical guidance and graded re-entry — not the child's eagerness or the fixture list. Rehabilitation exercises prescribed by the physiotherapist are incorporated into subsequent sessions so that PE supports recovery instead of competing with it.

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Home-Based Practice

One or two PE periods a week cannot build fitness, skill or supple joints; the programme must extend into the home. Home-based practice consists of short, prescribed, enjoyable activities: the physiotherapy exercise programme (stretching, strengthening, positioning), skill practice (ball skills, wheelchair skills in safe home spaces), active play and, where feasible, walking, swimming or cycling with family. The school's responsibilities are to select a realistic dose (brief daily practice beats heroic weekend efforts), teach parents and the child exactly what to do — with demonstration, simple illustrated cards and, where possible, video — supply or improvise basic equipment, and agree how practice will be recorded (a simple tick-chart or diary). Review at school closes the loop: practice is checked, praised, adjusted and progressed. Families must also be advised on safety limits and on balancing practice with rest and ordinary childhood —

the home programme should feel like family life with activity inside it, not like a hospital transplanted into the living room.

Conclusion

A physical education and training programme for children with physical and health impairments succeeds when it is run as an educational system: motor assessment establishes the starting point, ability-based grouping makes teaching fit, activity modification makes participation real, disciplined warm-up and cool-down protect vulnerable bodies, competent injury prevention and management keep the programme safe, and home-based practice supplies the frequency that real change requires. Under such a programme, PE stops being the lesson from which disabled children are excused and becomes what it should be — one of the most valuable lessons they attend.

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Question 5: A Comprehensive School-Based Educational Adaptation Framework (20 Marks)

Question as printed: Design a comprehensive school-based educational adaptation framework for a child with a physical disability of your choice. Your framework should address independent living, interdisciplinary collaboration, medical safety, employment preparation, least restrictive environment, adapted sports, curriculum. [Note: the question as printed in the booklet ends at the word 'curriculum.'; this answer also covers curriculum modification, the remaining theme of Units 5-9, to complete the framework.]

Introduction: The Child and the Purpose of the Framework

This framework is designed for a concrete case so that every element can be specified rather than merely listed. The child is 'Ahmed', aged 11, a student of Class 6 in an ordinary urban school. Ahmed has spastic diplegic cerebral palsy: his legs are markedly affected, he uses a manual wheelchair for distance and a walker for short transfers, his arms and hands have mild involvement (handwriting is slow and tiring), his speech is mildly dysarthric but intelligible, and his intellectual ability is average to above average. He is medically stable, takes no daily medication, but has tight hamstrings and hips that require a daily stretching programme, and he is at risk of falls during transfers. The framework below organises the school's whole response under seven headings — independent living, interdisciplinary collaboration, medical safety, employment preparation, least restrictive environment, adapted sports, and curriculum (including curriculum modification) — and closes with implementation and review arrangements. Its single aim is that Ahmed leaves school educated, independent, employable and included.

1. Independent Living Component

Ahmed's independence targets for this school year are set in his IEP after task-analysed assessment: independent wheelchair-to-toilet transfers using grab bars in the accessible toilet; managing clothing fasteners adapted with Velcro and a dressing routine practised with the occupational therapist; eating lunch independently with a non-slip mat and built-up cutlery; and moving between all his classrooms unaided. Prompting is faded on a written schedule — adults spot for safety during transfers but do not lift. Progress is recorded on a simple

independence profile each term, shared with Ahmed and his parents, and home routines mirror school routines so practice doubles. Self-advocacy is taught alongside: Ahmed himself reports equipment problems and requests his rest breaks.

2. Interdisciplinary Collaboration Component

A named team serves Ahmed: his class teacher (coordinator), parents, a visiting physiotherapist (monthly), an occupational therapist (termly consultation), the school-linked physician (annual review and on call), the school counsellor, and a speech therapist (one assessment, then monitoring, since his speech is intelligible). The team writes one plan — the IEP — meets formally each term, and communicates between meetings through a home–school diary. Each professional's contribution is translated into classroom practice: the physiotherapist's stretching programme is timetabled into the school day and taught to the PE teacher and Ahmed himself; the occupational therapist's seating specification (foot support, pelvis positioning, desk height) is implemented and checked each term as Ahmed grows. Any disagreement (for example over how much Ahmed should use the walker versus the wheelchair) is resolved in the meeting against the criterion of Ahmed's long-term joint health and independence, and the decision is recorded.

3. Medical Safety Component

Ahmed's individual health care plan, signed by parents and physician, states: transfer and lifting procedures (no adult lifts him alone; transfer board technique shown in a staff briefing each September); fall response (do not pull him up by the arms; check for injury, assist to wheelchair as trained, record and inform parents the same day); stretching-related precautions; fatigue

management (he may rest his legs elevated during the lunch break); skin checks after long sitting on school trips; and the evacuation plan — Ahmed's classrooms are kept on the ground floor, and two named staff are responsible for his evacuation using the evacuation chair, practised in every fire drill. First-aid trained staff know his plan, emergency contacts are on file and updated termly, and any injury or fall is entered in the accident record with parental notification. Medication is not currently required; the framework states that if this changes, the school's standard consent, storage, administration and logging procedure applies automatically.

4. Employment Preparation Component

At age 11 employment preparation means foundations, not placements. Ahmed follows the full academic curriculum so that qualifications — the real currency of his future employment, given that his aptitudes suit sedentary, skilled work — are not compromised. Functional foundations laid now include: keyboarding and computer competence to a high standard (his most important future work tool), prevocational habits (punctuality, task completion, accepting correction), career awareness through visiting speakers including disabled professionals, and self-knowledge discussions in counselling. The framework schedules the formal steps ahead: a written transition plan from age 14, vocational assessment and work-experience placement in Classes 9–10 arranged through the school's community links, assistive-technology review before examinations and before leaving, and careers guidance that presents computing, accounts, teaching, design and office professions as live options evidenced by his attainment — not by lowered expectation.

5. Least Restrictive Environment Component

Ahmed is educated full-time in the regular Class 6 with his age peers; this is his LRE because his learning needs can be met there with support, and his social and academic interests demand it. Restrictiveness is audited termly: he is withdrawn only for the daily fifteen-minute stretching programme, scheduled within the PE/assembly rotation to minimise curriculum loss, and he receives no separate 'special class' placement. Accessibility is maintained as a standing item — ground-floor timetabling, ramp and accessible toilet checks each term, a desk and turning space arranged in every classroom he uses, and school trips planned with his transport and access included from the first planning step rather than negotiated afterwards. Participation, not presence, is the measure: Ahmed holds a class responsibility, joins clubs, and his name appears in the ordinary life of the school.

6. Adapted Sports Component

Ahmed takes part in every PE lesson with his class. Following motor assessment by the physiotherapist and PE teacher, his programme combines: class games modified by rule and role (wheelchair-inclusive ball games, seated volleyball with the whole class seated, target and boccia-type activities); a personal fitness circuit (upper-body strengthening for propulsion and transfers, trunk work, and his stretching routine) pursued within the lesson while peers do their own circuits; and swimming, his highest-ability sport, in which he joins the advanced group. He competes in the school sports day in wheelchair racing and throwing events with distances and equipment adapted, and his progress is recorded against his own baselines. Safety planning

covers wheelchair checks, transfer supervision at the pool, and fatigue stop-signals agreed with Ahmed.

7. Curriculum and Curriculum Modification Component

Ahmed follows the complete Class 6 curriculum at full standard, what is modified is access and response, never expectation. Standing modifications in every subject: laptop for extended writing (handwriting reserved for short tasks and continued occupational-therapy practice), extra time of 25 per cent in tests, rest breaks in long examinations, adapted worksheets with reduced copying (word banks, structured formats), slant board and adapted stationery in art and mathematics, pre-printed diagrams where drawing speed is the barrier while the concept is not, a scribe protocol agreed for examinations if keyboarding is impractical, positioning and materials within reach, and timetable planning that spreads writing-heavy lessons across the day. Individualised goals sit in three strands — access (technology and mobility), curriculum (full attainment targets per subject), independence (Section 1 above) — and each modification is reviewed termly: anything no longer needed is removed, because the framework's direction of travel is always toward less adaptation and more autonomy.

Table 1: Summary of the framework — component, key actions and responsible person

Component	Key actions	Responsible / review
Independent living	Transfer, toileting, dressing and eating targets; faded prompting; independence profile.	OT + teacher; termly review.

Interdisciplinary collaboration	One IEP; termly team meeting; home–school diary; therapy translated into class routines.	Class teacher as coordinator.
Medical safety	Health care plan; transfer and fall procedures; evacuation plan; accident recording.	Head teacher + first-aiders.
Employment preparation	Full academics, keyboarding; career awareness; transition plan from age 14.	Counsellor + teacher.
Least restrictive environment	Full inclusion; minimal withdrawal; termly accessibility audit.	Head teacher; termly audit.
Adapted sports	Modified class games; personal fitness circuit; swimming; adapted sports day events.	PE teacher + physiotherapist.
Curriculum modification	Laptop, extra time, adapted worksheets; full standards maintained; termly pruning of adaptations.	Subject teachers + OT.

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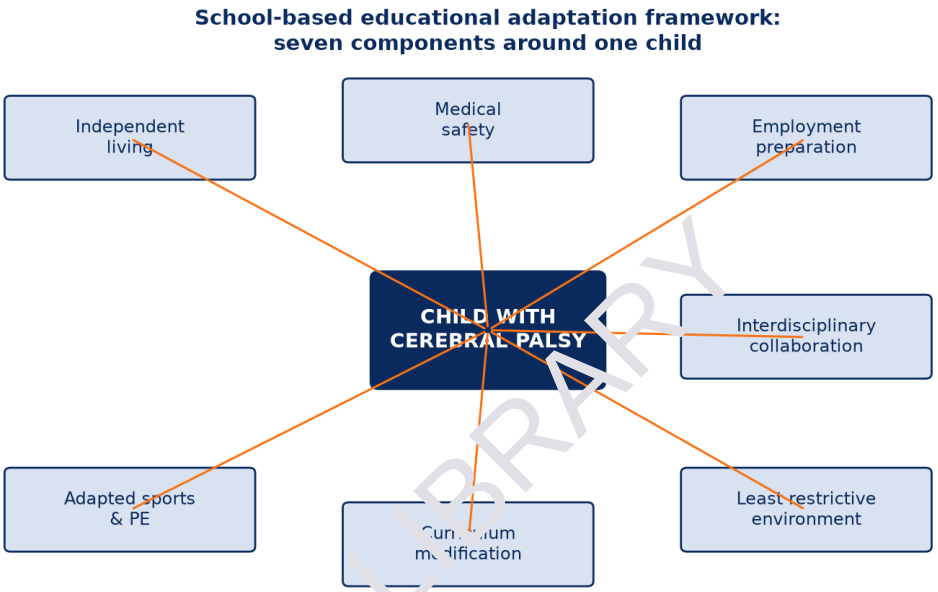


Figure 1: The seven components of the adaptation framework organised around the child.

Implementation, Monitoring and Review

The framework is implemented through the IEP cycle: assess (September), plan and put adaptations in place (within the first month), implement with named responsibilities, monitor through the diary, the independence profile, attainment records and the accident/participation logs, and review formally each term with parents and Ahmed present for the relevant part of the meeting. Success criteria are stated in advance: Ahmed attains at the level of his assessed ability; his independence profile shows termly gains; his participation record covers lessons, sports and school events without unexplained exclusions; there are no preventable injuries; and Ahmed's own reported satisfaction and confidence, gathered by the counsellor, are rising. Any component failing its criteria is redesigned at the review rather than blamed on the child — that discipline is what makes this a framework rather than a list of good intentions.

Conclusion

For Ahmed — and, with different specifications, for any child with a physical disability — a comprehensive adaptation framework is simply the seven themes of this course made operational for one real child in one real school. Independent living gives the framework its destination, interdisciplinary collaboration its workforce, medical safety its security, employment preparation its future tense, the least restrictive environment its setting, adapted sports its health and joy, and curriculum modification its daily educational substance. Held together by the IEP cycle of assessment, planning, implementation and honest review, the framework ensures that adaptation is not a favour granted to the child but a system maintained by the school.

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