# शारीरिक गतिविधि प्रशिक्षक

# PHYSICAL ACTIVITY TRAINER

## कक्षा / Class XII 2026-27

### विद्यार्थी सहायक सामग्री
### Student Support Material

FITNESS

TRAINING

WELLNESS

SPORTS SKILLS

ASSESSMENT

PROFESSIONAL PRACTICES



CONCEPTUAL UNDERSTANDING | PRACTICAL SKILLS | CRITICAL THINKING & PROBLEM SOLVING | FITNESS FOR LIFE & CAREER

केन्द्रीय विद्यालय संगठन ~ Kendriya Vidyalaya Sangathan

विकास गुप्ता, भा.प्र.से.
आयुक्त
Vikas Gupta, IAS
Commissioner

तत् त्वं पूषन् अपावृणु
केन्द्रीय विद्यालय संगठन

केन्द्रीय विद्यालय संगठन
18, संस्थागत क्षेत्र, शहीद जीत सिंह मार्ग, नई दिल्ली-110016
Kendriya Vidyalaya Sangathan
18, Institutional Area, Shaheed Jeet Singh Marg, New Delhi-110016

# संदेश

शिक्षा केवल पुस्तकों तक सीमित ज्ञान नहीं है; यह स्वयं को पहचानने, अपने विचारों को विस्तार देने और जीवन की चुनौतियों का आत्मविश्वास से सामना करने की सतत् यात्रा है। केन्द्रीय विद्यालय संगठन का सदैव यह प्रयास रहा है कि प्रत्येक विद्यार्थी के लिए ऐसा शिक्षण वातावरण हो, जहाँ जिज्ञासा को प्रोत्साहन मिले, सीखना आनंददायी बने और प्रत्येक बालक अपनी अंतर्निहित क्षमताओं को पहचानकर उन्हें विकसित कर सके।

राष्ट्रीय शिक्षा नीति 2020 ने शिक्षा को सिर्फ रटने से समझने, सूचना से ज्ञान और ज्ञान से जीवनोपयोगी दक्षताओं की ओर अग्रसर किया है। आज का समय कृत्रिम बुद्धिमत्ता (Artificial Intelligence – AI), डिजिटल नवाचार और निरंतर बदलती तकनीकों का है। ऐसे युग में केवल तथ्यों का ज्ञान पर्याप्त नहीं है; आवश्यक है कि विद्यार्थी मनन- चिंतन करना सीखें, प्रश्न पूछें, समस्याओं का समाधान खोजें और नए विचारों के साथ आगे बढ़ें। यही क्षमताएँ उन्हें भविष्य के लिए तैयार करेंगी।

इन्हीं उद्देश्यों को ध्यान में रखते हुए केन्द्रीय विद्यालय संगठन के पाँचों आंचलिक शिक्षा एवं प्रशिक्षण संस्थानों (ZIETs) के माध्यम से, समर्पित एवं अनुभवी शिक्षकों द्वारा कक्षा 9 से 12 के विद्यार्थियों के लिए यह विद्यार्थी सहायक सामग्री तैयार की गई है। यह केवल परीक्षा की तैयारी की संकलन सामग्री नहीं है, बल्कि विषयों को सरलता से समझने, अवधारणाओं को स्पष्ट करने, नियमित अभ्यास करने और आत्मविश्वास के साथ आगे बढ़ने का एक विश्वसनीय साथी है।

इस सामग्री में विषय-वस्तु को विद्यार्थियों की आवश्यकताओं के अनुरूप सरल, व्यवस्थित एवं दक्षता-आधारित दृष्टिकोण से प्रस्तुत किया गया है। मुझे प्रसन्नता है कि इसे हमारे शिक्षकों के अनुभव, नवाचार और विद्यार्थियों के प्रति उनकी प्रतिबद्धता ने समृद्ध बनाया है। मुझे विश्वास है कि यह सामग्री विद्यार्थियों की सीखने की यात्रा को अधिक सहज, रोचक और प्रभावी बनाएगी तथा उन्हें बोर्ड परीक्षाओं के साथ-साथ जीवन की व्यापक चुनौतियों के लिए भी तैयार करेगी।

मेरा विश्वास है कि जब एक जिज्ञासु विद्यार्थी, प्रेरित शिक्षक और सार्थक शिक्षण संसाधन एक साथ आते हैं, तब शिक्षा केवल उपलब्धि का माध्यम नहीं रहती, बल्कि व्यक्तित्व निर्माण की एक सशक्त प्रक्रिया बन जाती है। यही भावना इस विद्यार्थी सहायक सामग्री के केंद्र में है।

मेरी हार्दिक शुभकामनाएँ हैं कि आप सभी सीखने की इस यात्रा में निरंतर आगे बढ़ें, अपने सपनों को नए आयाम दें और ज्ञान, संवेदनशीलता तथा नवाचार के साथ राष्ट्र निर्माण में अपना महत्वपूर्ण योगदान दें।

शुभकामनाओं सहित।

(विकास गुप्ता)

**PATRON**
**SH. VIKAS GUPTA, IAS**
**COMMISSIONER, KVS**

**CO-PATRON**
**MS. CHANDANA MANDAL**
**ADDITIONAL COMMISSIONER (ACAD.), KVS (HQ)**

**COORDINATOR**
**Ms. P B S USHA**
**JOINT COMMISSIONER (TRAINING), KVS (HQ)**

**COVER DESIGN**
**KVS PUBLICATION SECTION**

**EDITOR**
**MR. P I T RAJA**
**DIRECTOR, ZIET MYSURU**

**ZIET COORDINATOR**
**SHRI DINESH KUMAR**
**TA(PHYSICS)**

## About the Student Support Material

The Student Support Material (SSM) for Class XII Physical Activity Trainer (PAT) has been developed for the academic session 2026–27 under the guidance of Kendriya Vidyalaya Sangathan (KVS), Headquarters, New Delhi. As per the directions of KVS HQ, the responsibility for preparing this material was entrusted to the KVS Zonal Institute of Education and Training (ZIET), Mysuru.

To ensure quality, relevance, and learner-friendly presentation, ZIET Mysuru collaborated with experienced teachers and subject experts from various Kendriya Vidyalaya regions. Their collective expertise has helped create comprehensive, skill-oriented, and examination-focused learning material aligned with the needs of Class XII students.

The SSM has been prepared in accordance with the latest CBSE guidelines, the vision of National Education Policy (NEP) 2020, and the principles of Competency-Based Education (CBE). It aims to strengthen students' understanding of physical fitness, exercise science, health and wellness, sports training, fitness assessment, injury prevention, and professional practices in the fitness industry.

The material is designed to support both academic learning and skill development by enhancing practical competencies, critical thinking, communication abilities, leadership qualities, and employability skills required for higher education and careers in the fitness and wellness sector.

Each unit generally includes:

- Key Concepts and Topic Notes
- Infographics and Visual Learning Aids
- Multiple Choice Questions (MCQs)
- Short and Long Answer Questions
- Competency-Based and Application-Oriented Questions
- Practical Activities and Skill-Based Exercises
- Case Studies and Real-Life Scenarios
- Practice and Revision Content

Special Features

✓ Simple and student-friendly language

✓ Integration of theory with practical application

✓ Real-life fitness and wellness contexts

✓ Competency-based and skill-oriented assessment

✓ Focus on professional readiness and career awareness

✓ Systematic, comprehensive, and easy-to-understand content

This Student Support Material is more than an examination resource; it is a learning companion that promotes conceptual understanding, practical proficiency, problem-solving skills, and professional competence. Students are encouraged to use it regularly for classroom learning, practical sessions, revision, self-assessment, and examination preparation.

We sincerely hope that this collaborative effort of KVS ZIET Mysuru and the contributing teachers will support students in achieving academic success, developing professional skills, and fostering a lifelong commitment to health, fitness, and wellness.

## How to Use this Student Support Material (SSM)

Welcome to the Student Support Material (SSM) for Class XII Physical Activity Trainer (PAT). This resource has been designed to help you develop a strong understanding of fitness and wellness concepts, exercise science, training methods, health promotion, and professional practices in the fitness industry. It aims to support your academic success, skill development, and career readiness in the health, fitness, and wellness sector.

Best Practices for Effective Learning

To make the most of this material:

• Understand the Concepts: Read the chapter notes carefully and focus on the principles of fitness, exercise, nutrition, wellness, and physical activity management.

• Learn Key Terminology: Familiarize yourself with important terms, training principles, fitness components, safety procedures, and industry practices.

• Connect Theory with Practice: Relate classroom learning to exercise sessions, fitness assessments, workout planning, and real-life fitness situations.

• Develop Application Skills: Attempt competency-based, case-based, and practical questions to strengthen problem-solving and decision-making abilities.

• Revise Regularly: Use diagrams, flowcharts, fitness charts, concept maps, and summaries for quick revision and better retention.

• Prepare for Assessments: Practice MCQs, short-answer, long-answer, and practical questions to improve examination performance and confidence.

• Participate Actively: Engage in practical activities, demonstrations, projects, and fitness sessions to reinforce learning through hands-on experience.

Versatile Usage

This SSM can be effectively used for:

• Daily Classroom Learning and Homework

• Skill-Based Practical Activities and Assignments

• Unit Tests and Periodic Assessments

• Practical Examinations and Viva Voce Preparation

• Board Examination Preparation

• Revision and Self-Assessment

• Development of Professional Skills in Fitness and Wellness

Regular and sincere use of this material will help you develop conceptual clarity, practical competence, professional skills, and confidence as a Physical Activity Trainer. More importantly, it will encourage healthy lifestyle practices and foster essential workplace qualities such as communication, leadership, teamwork, responsibility, and professionalism.

**Happy Learning and Best Wishes for Your Success in the Board Examination and Your Future Career in the Fitness and Wellness Industry!**

# CONTENT CREATORS

| NAME OF TEACHER | DESIGNATION | KV WHERE WORKING | REGION |
|---|---|---|---|
| Mr. VIVEK RUNWAL | TGT(P&HE) | KARIMNAGAR | HYDERABAD |
| Mr. K BHASKAR | TGT(P&HE) | NO. 2 GOLCONDA | HYDERABAD |
| Mr. ANOOP JAKHMOLA | TGT(P&HE) | PM SHRI KV NER BAREILLY | LUCKNOW |
| Mr. MANISH KUMAR | TGT(P&HE) | PM SHRI KV MASIMPUR | SILCHAR |
| Mr. ANAND KUMAR | TGT(P&HE) | PM SHRI KV PDDU NAGAR CHANDAULI | VARANASI |
| Mrs. V. JAYANTHI | TGT(P&HE) | PM SHRI KENDRIYA VIDYALAYA CRPF AVADI | CHENNAI |
| Mrs. SUMI K S | TGT(P&HE) | KV COIMBATORE | CHENNAI |
| Mr. K KUMAR | TGT(P&HE) | KV 1 PUDUCHERRY (SHIFT 1) | CHENNAI |
| Mr. VIKASH CHANDRA | TGT(P&HE) | KV BAGESHWAR | DEHRADUN |
| Dr. JAGJIT SINGH | TGT(P&HE) | PM SHRI KV MATHANA | GURUGRAM |
| Mr. ASWIN KRISHNA | TGT(P&HE) | PM SHRI KV RB KOTTAYAM | ERNAKULAM |
| Mr. BIJU M S | TGT(P&HE) | PM SHRI KV CRPF PALLIPURAM | ERNAKULAM |
| Mr. JESTIN JOSE | TGT(P&HE) | PM SHRI KV NO.1 PALAKKAD | ERNAKULAM |
| Mr. JOSEPH KURIAN | TGT(P&HE) | KV ADOOR (SHIFT-I) | ERNAKULAM |
| DR RAVI PRAKASH SINGH | TGT(P&HE) | KV IFFCO PHULPUR, PRAYAGRAJ | VARANASI |
| Mr. OJAS SONI | TGT(P&HE) | KV ADILABAD | HYDERABAD |
| Dr. ABHAY SINGH RATHAUR | TGT(P&HE) | KV GARHWA | RANCHI |
| DR EDUKONDALU TADIVALASA | TGT(P&HE) | PM SHRI KV NO 1 VIJAYAWADA | HYDERABAD |

# EDITORS AND REVIEWERS

| | | | |
|---|---|---|---|
| Mr. JOSEPH KURIAN | TGT(P&HE) | KV ADOOR (SHIFT-I) | ERNAKULAM |
| DR RAVI PRAKASH SINGH | TGT(P&HE) | KV IFFCO PHULPUR, PRAYAGRAJ | VARANASI |
| Mr. OJAS SONI | TGT(P&HE) | KV ADILABAD | HYDERABAD |
| Dr. ABHAY SINGH RATHAUR | TGT(P&HE) | KV GARHWA | RANCHI |
| DR EDUKONDALU TADIVALASA | TGT(P&HE) | PM SHRI KV NO 1 VIJAYAWADA | HYDERABAD |

**INDEX**


| S.NO | CONTENT | PAGE NO |
|---|---|---|
| | PART A | |
| UNIT | NAME | PAGE NO. |
| 1 | COMMUNICATION SKILLS-IV | 1 |
| 2 | SELF MANAGEMENT SKILLS-IV | 18 |
| 3 | INFORMATION AND COMMUNICATION TECHNOLOGY SKILLS-IV | 36 |
| 4 | ENTREPRENEURIAL SKILLS-IV | 44 |
| 5 | GREEN SKILLS -IV | 53 |
| | PART B | |
| 1 | OVERVIEW OF PHYSICAL EDUCATION AND SPORTS SECTOR | 70 |
| 2 | ASSESSMENT OF STUDENTS | 89 |
| 3 | EMERGENCY MANAGEMENT | 108 |
| 4 | HEALTH AND HYGIENE IN PLAY AREA | 124 |
| | DIGITAL RESOURCES | 137 |

# PHYSICAL ACTIVITY TRAINER (SUBJECT CODE - 845)

## CLASS – XII (SESSION 2025-2026)

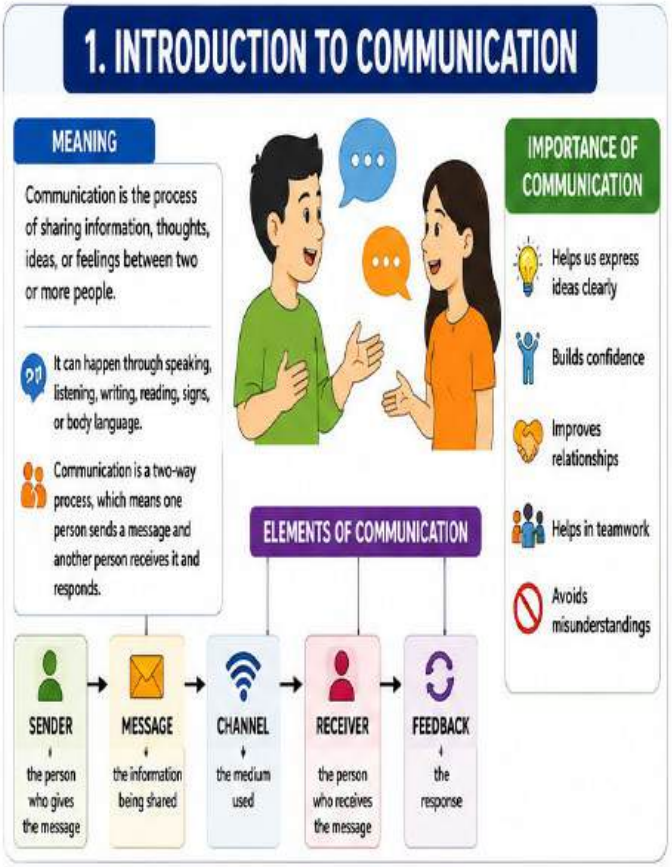
## Total Marks: 100 (Theory-50 + Practical-50)

| | UNITS | NO. OF HOURS for Theory and Practical | | MAX. MARKS for Theory and Practical |
|---|---|---|---|---|
| Part A | **Employability Skills** | | | |
| | Unit 1: Communication Skills-IV | 15 | | 2 |
| | Unit 2: Self-management Skills- IV | 10 | | 2 |
| | Unit 3: Information and Communication Technology Skills- IV | 15 | | 2 |
| | Unit 4: Entrepreneurial Skills- IV | 10 | | 2 |
| | Unit 5: Green Skills- IV | 10 | | 2 |
| | **Total** | **60** | | **10** |
| Part B | **Subject Specific Skills** | **Theory** | **Practical** | **Total** |
| | Unit 1: Overview of Physical Education and Sports Sector | 18 | 19 | 10 |
| | Unit 2: Assessment of Students | 18 | 19 | 10 |
| | Unit 3: Emergency Management | 18 | 23 | 10 |
| | Unit 4: Health and Hygiene in Play Area | 21 | 14 | 10 |
| | **Total** | **75** | **75** | **40** |
| Part C | **Practical Work** | | | |
| | Practical Examination | | | 15 |
| | Written Test | | | 10 |
| | Viva Voce | | | 10 |
| | **Total** | | | **35** |
| Part D | **Project Work/Field Visit** | | | |
| | Practical File/ Student Portfolio | | | 10 |
| | Viva Voce | | | 05 |
| | **Total** | | | **15** |
| | **Total** | **210** | | **100** |

# PART A-EMPLOYABILITY SKILLS

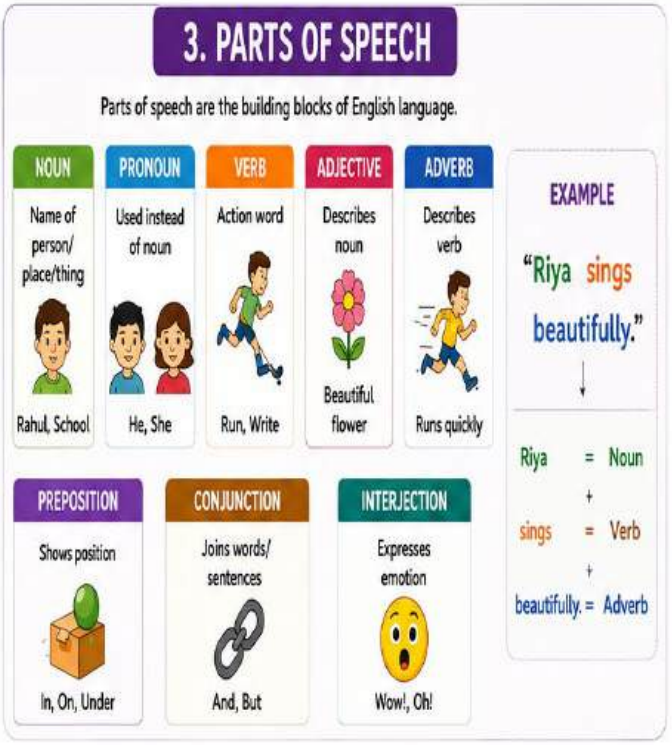
# UNIT 1-COMMUNICATION SKILLS-IV

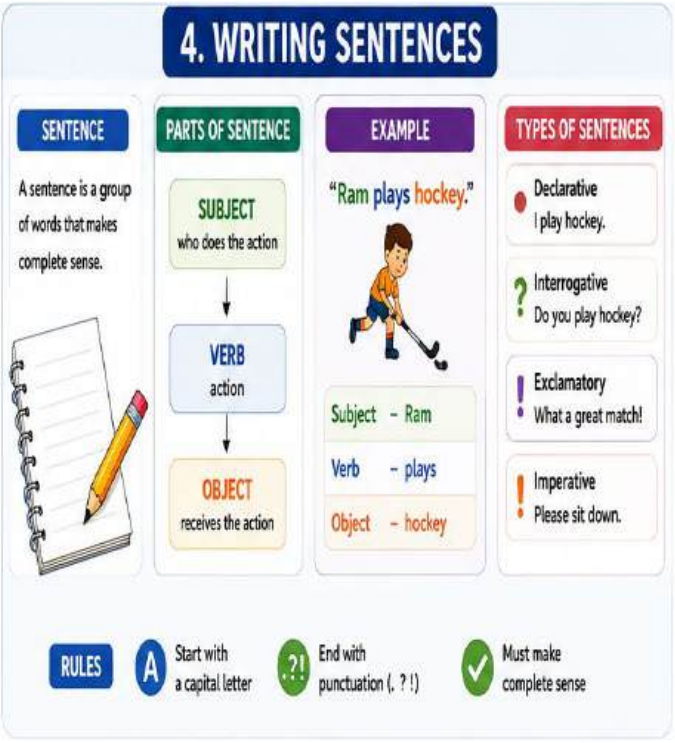
## INTRODUCTION TO COMMUNICATION









## **Meaning**:

Communication is the process of sharing information, thoughts, ideas, or feelings between two or more people.

It can happen through speaking, listening, writing, reading, signs, or body language.

Communication is a two-way process, which means one person sends a message and another person receives it and responds.

**Elements of Communication:**

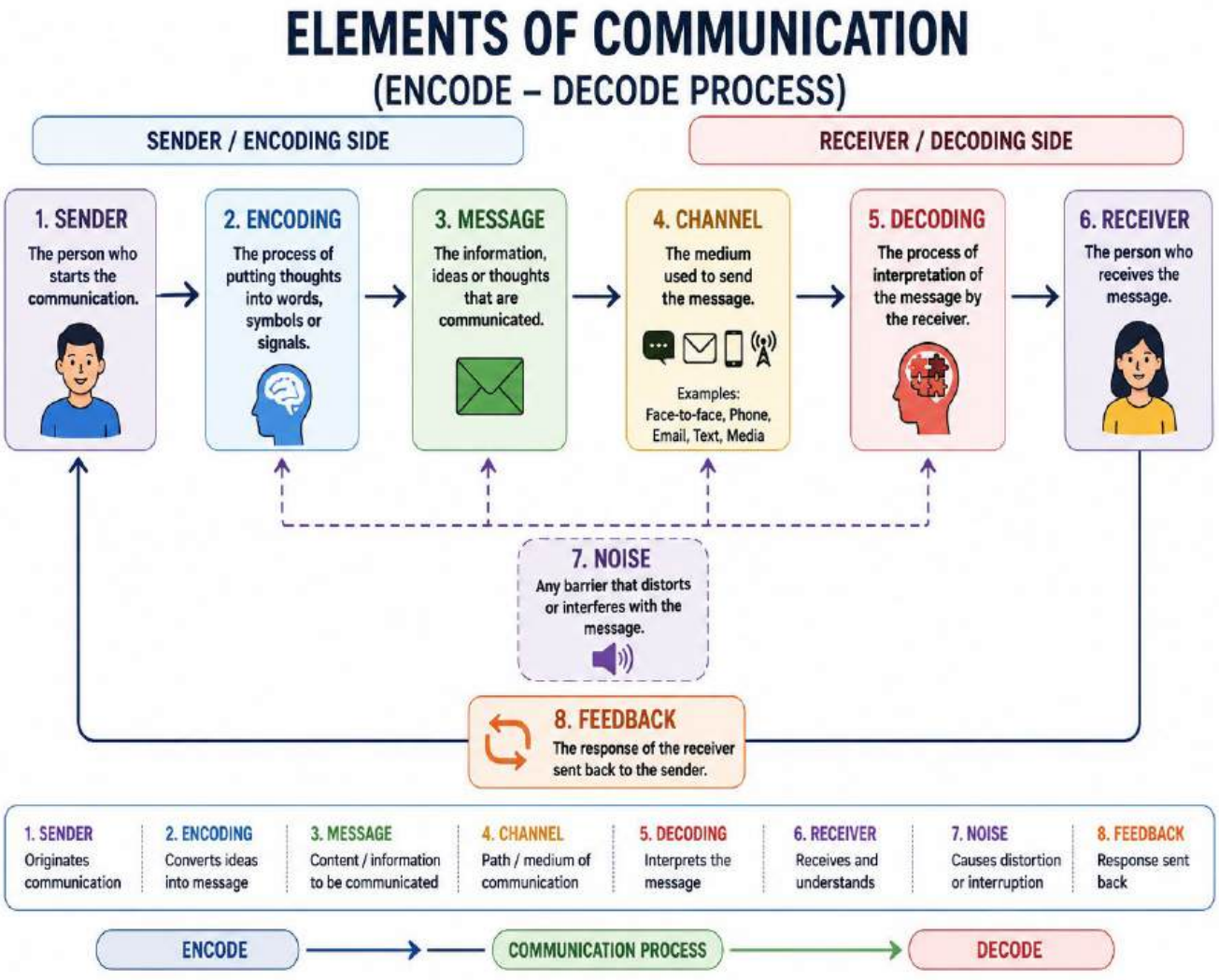
• Sender – the person who gives the message

• Message – the information being shared

• Channel – the medium used

• Receiver – the person who receives the message

• Feedback – the response



**Importance of Communication**:

• Helps us express ideas clearly

• Builds confidence

• Improves relationships

• Helps in teamwork

• Avoids misunderstandings

## ACTIVE LISTENING

**Meaning:** Active listening means listening carefully to understand what the speaker is saying and responding thoughtfully.

Why Active Listening is Important:

• Helps us understand better

• Builds trust and relationships

• Avoids misunderstandings

• Helps in learning

**Stages:**

• Receiving

• Understanding

• Remembering

• Evaluating

• Responding

**Tips:**

• Maintain eye contact

• Avoid distractions

• Pay full attention

• Ask questions

• Give feedback

**Barriers:**

• Noise

• Lack of attention

• Personal thoughts

• Interruptions

## PARTS OF SPEECH

**Define:**

Parts of speech are the building blocks of the English language.

Noun – Name of person/place/thing – Rahul, School

Pronoun – Used instead of noun – He, She

Verb – Action word – Run, Write

Adjective – Describes noun – Beautiful flower

Adverb – Describes verb – Runs quickly

Preposition – Shows position – In, On, Under

Conjunction – Joins words/sentences – And, But

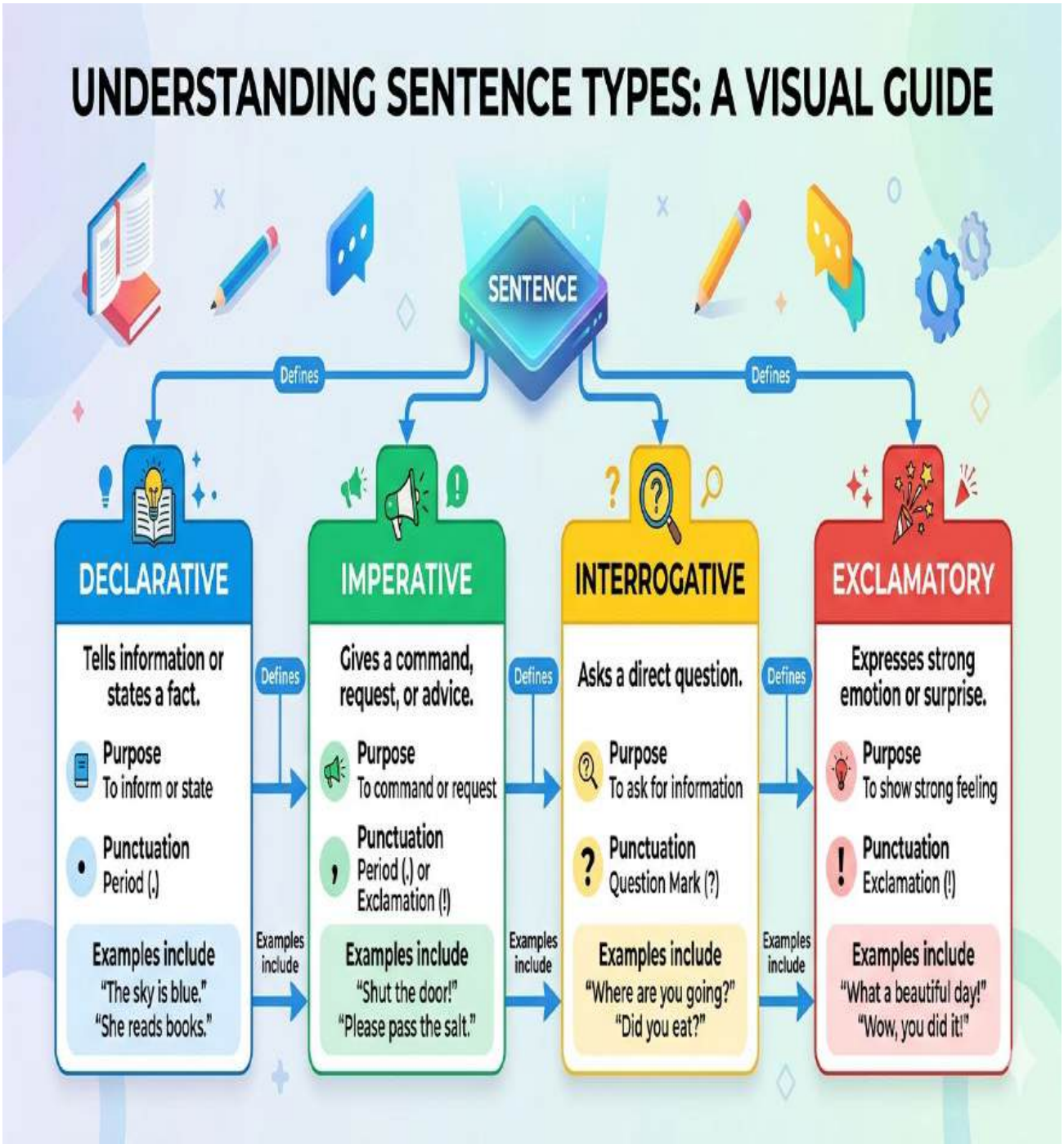
Interjection – Expresses emotion – Wow!, Oh!

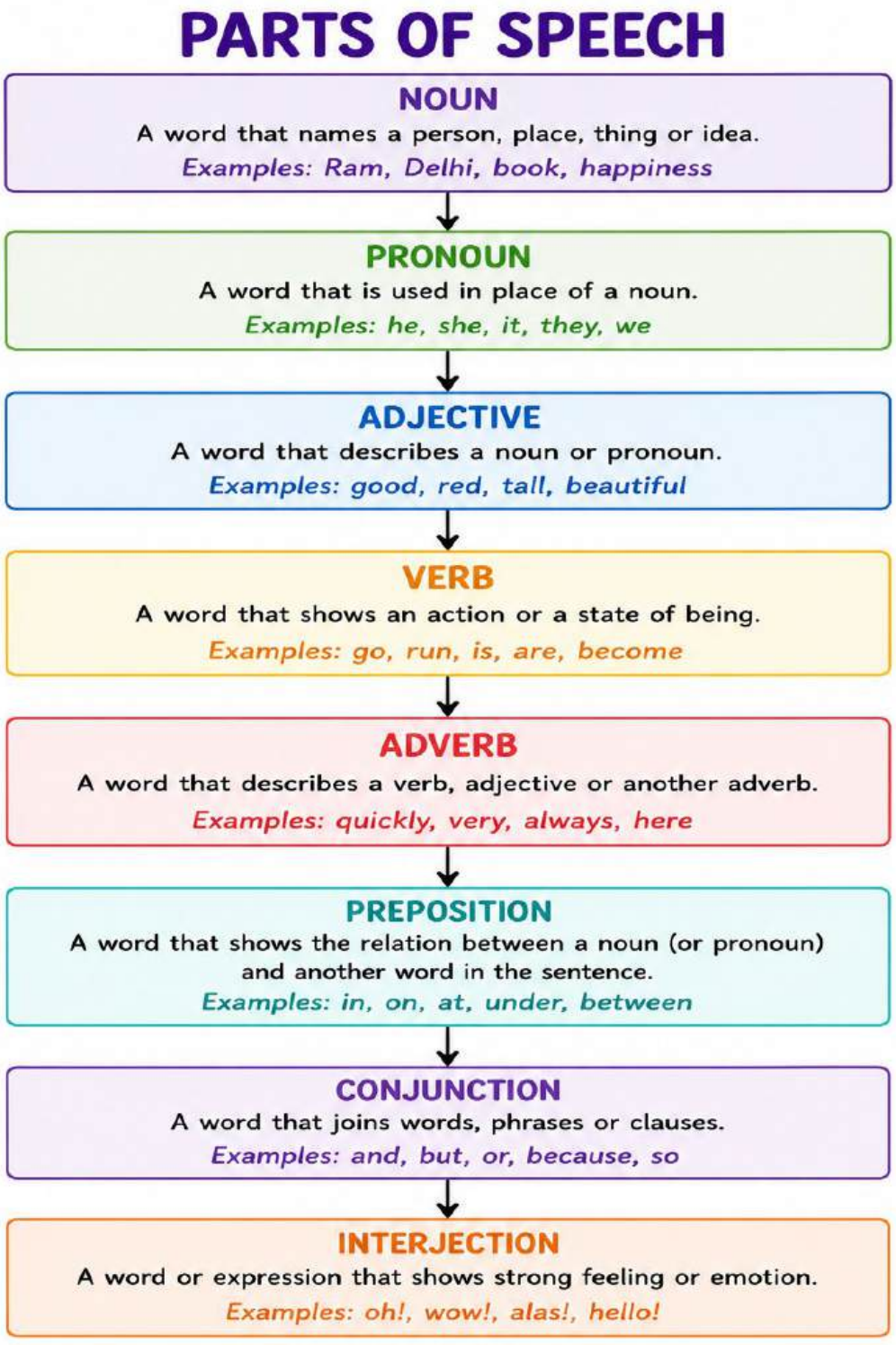
Example: Riya sings beautifully.

Riya = Noun

sings = Verb

beautifully = Adverb


UNDERSTANDING SENTENCE TYPES: A VISUAL GUIDE
SENTENCE
Defines
Defines
DECLARATIVE
Tells information or states a fact.
Purpose
To inform or state
Punctuation
Period (.)
Examples include
"The sky is blue."
"She reads books."
Defines
IMPERATIVE
Gives a command, request, or advice.
Purpose
To command or request
Punctuation
Period (.) or Exclamation (!)
Examples include
"Shut the door!"
"Please pass the salt."
Defines
INTERROGATIVE
Asks a direct question.
Purpose
To ask for information
Punctuation
Question Mark (?)
Examples include
"Where are you going?"
"Did you eat?"
Defines
EXCLAMATORY
Expresses strong emotion or surprise.
Purpose
To show strong feeling
Punctuation
Exclamation (!)
Examples include
"What a beautiful day!"
"Wow, you did it!"
Examples include
Examples include
Examples include


PARTS OF SPEECH
NOUN
A word that names a person, place, thing or idea.
Examples: Ram, Delhi, book, happiness
PRONOUN
A word that is used in place of a noun.
Examples: he, she, it, they, we
ADJECTIVE
A word that describes a noun or pronoun.
Examples: good, red, tall, beautiful
VERB
A word that shows an action or a state of being.
Examples: go, run, is, are, become
ADVERB
A word that describes a verb, adjective or another adverb.
Examples: quickly, very, always, here
PREPOSITION
A word that shows the relation between a noun (or pronoun)
and another word in the sentence.
Examples: in, on, at, under, between
CONJUNCTION
A word that joins words, phrases or clauses.
Examples: and, but, or, because, so
INTERJECTION
A word or expression that shows strong feeling or emotion.
Examples: oh!, wow!, alas!, hello!

# WRITING SENTENCES

**Sentence:** Group of words that makes complete sense.

**Parts of Sentence:**

• Subject – who does the action

• Verb – action

• Object – receives the action

Example: Ram plays hockey.

Subject – Ram

Verb – plays

Object – hockey

**Types of Sentences:**

• Declarative – I play hockey.

• Interrogative – Do you play hockey?

• Exclamatory – What a great match!

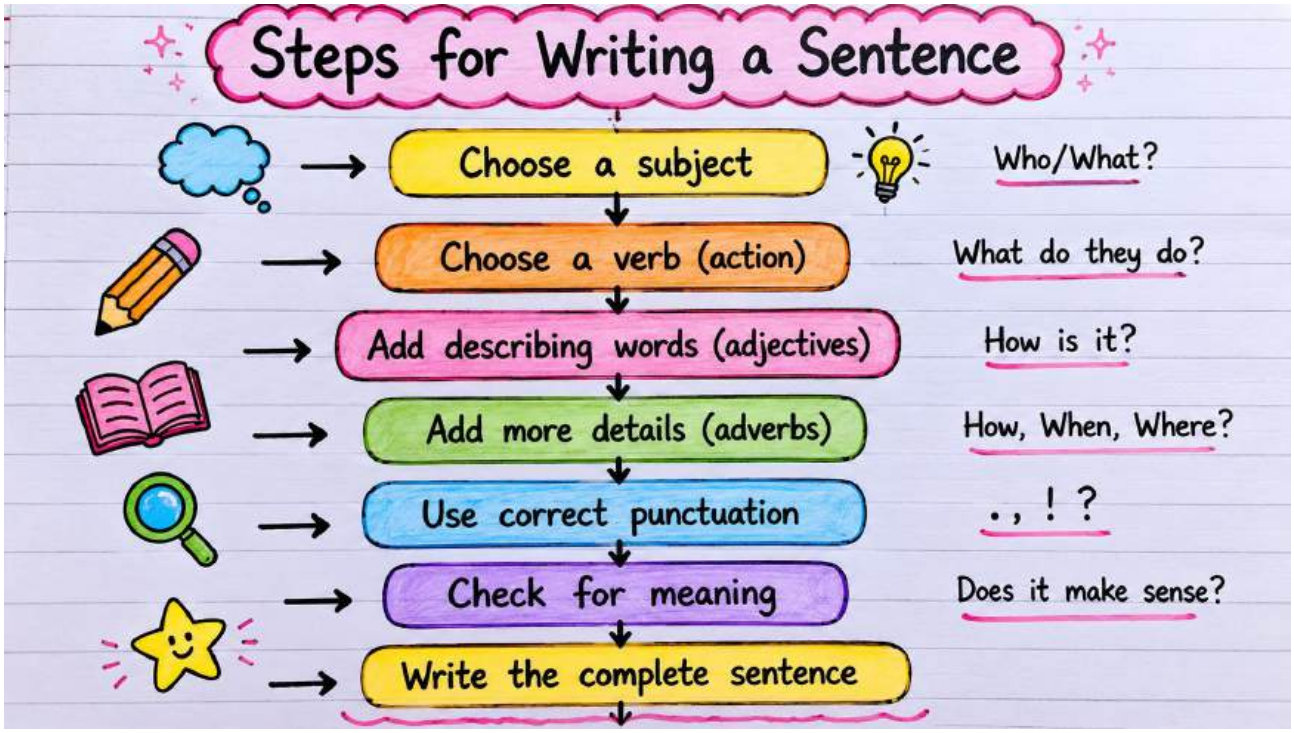
• Imperative – Please sit down.

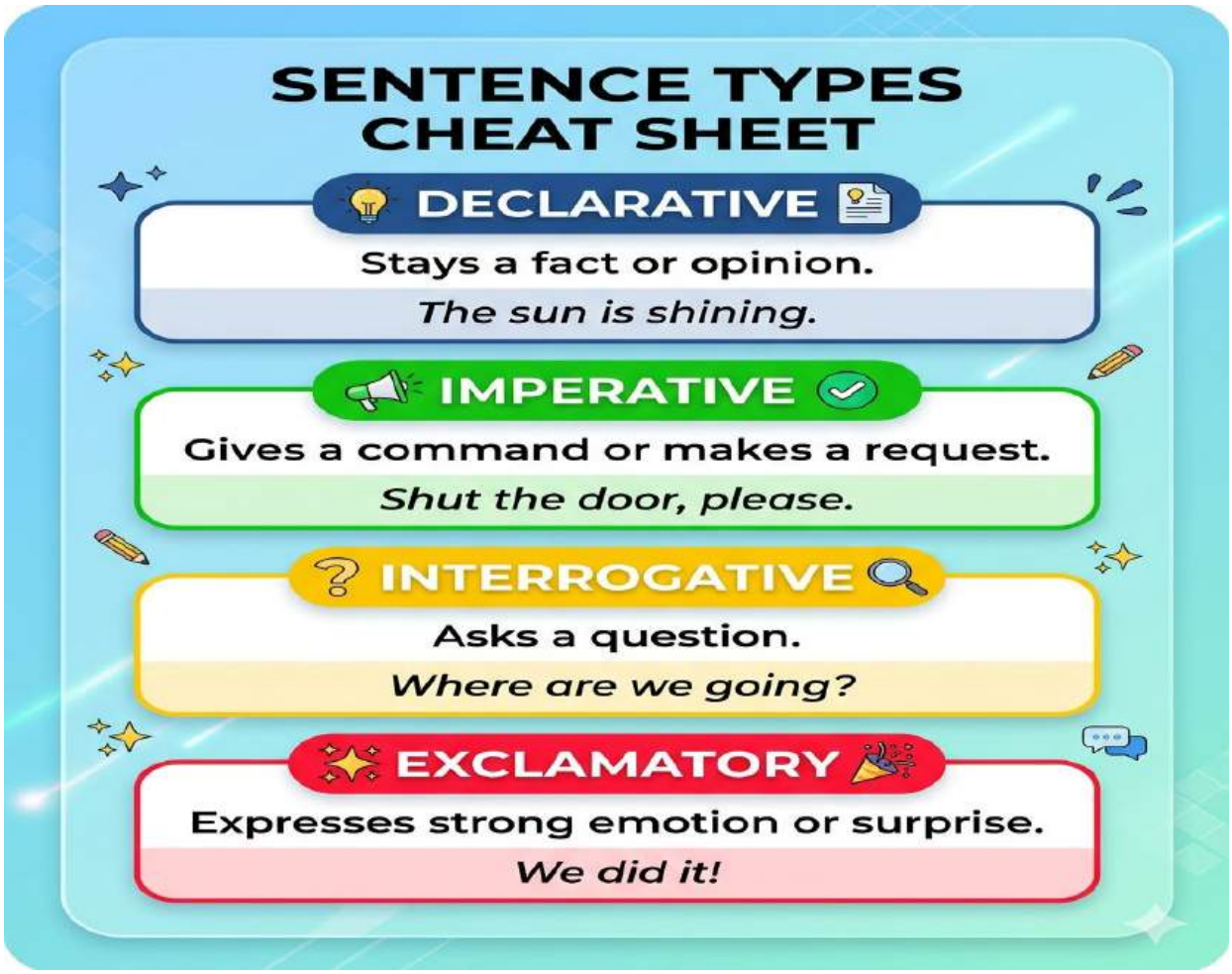
**Rules:**

• Start with a capital letter

• End with punctuation (. ? !)

• Must make complete sense


Steps for Writing a Sentence
Choose a subject
Who/What?
Choose a verb (action)
What do they do?
Add describing words (adjectives)
How is it?
Add more details (adverbs)
How, When, Where?
Use correct punctuation
., ! ?
Check for meaning
Does it make sense?
Write the complete sentence


SENTENCE TYPES
CHEAT SHEET
DECLARATIVE
Stays a fact or opinion.
The sun is shining.
IMPERATIVE
Gives a command or makes a request.
Shut the door, please.
INTERROGATIVE
Asks a question.
Where are we going?
EXCLAMATORY
Expresses strong emotion or surprise.
We did it!

# QUICK REVISION – COMMUNICATION SKILLS

## 1. Communication (Basics)

- Communication = sharing ideas, thoughts, or information between people
- It is a **two-way process**

**Communication Flow:**
Sender → Encoding → Message → Channel → Receiver → Decoding → Feedback

**Elements:**

- **Sender** – gives message
- **Message** – information
- **Channel** – medium (speech, writing, etc.)
- **Receiver** – gets message
- **Feedback** – response

**Importance of good communication skills:**

- Express ideas clearly
- Builds confidence
- Improves relationships
- Helps teamwork
- Avoids misunderstandings

## 2. Active Listening

**Meaning:**
Listening carefully + understanding + responding properly

**Importance:**

- Better understanding
- Builds trust
- Improves learning
- Avoids confusion

**Stages:**
Receiving →Understanding →Remembering →Evaluating →Responding

**Tips:**

- Maintain eye contact
- Avoid distractions
- Pay attention
- Ask questions
- Give feedback

**Barriers:**

- Noise
- Lack of attention
- Interruptions
- Personal thoughts

## 3. Parts of Speech

Building blocks of English

| Part | Meaning | Example |
|---|---|---|
| **Noun** | Name | Rahul, School |
| **Pronoun** | Replaces noun | He, She |
| **Verb** | Action | Run, Write |
| **Adjective** | Describes noun | Beautiful |
| **Adverb** | Describes verb | Quickly |
| **Preposition** | Shows position | In, On |
| **Conjunction** | Joins words | And, But |
| **Interjection** | Emotion | Wow!, Oh! |

## 4. Sentence Writing

**Sentence:** Group of words with complete meaning

**Parts:**

- **Subject** – doer
- **Verb** – action
- **Object** – receiver

Example: *Ram plays hockey*
Subject = Ram | Verb = plays | Object = hockey

## 5. Types of Sentences

- **Declarative** – Statement
  → I play hockey.

- **Interrogative** – Question
  → Do you play hockey?
- **Exclamatory** – Strong feeling
  →What a match!
- **Imperative** – Order/Request
  →Please sit down.
-

## 6. Sentence Rules

- Start with **capital letter**
- End with **punctuation (. ? !)**
- Must make **complete sense**

## QUICK PRACTICE (IMPORTANT POINTS)

- Communication = **Two-way process**
- Feedback = **Response from receiver**
- Active listening = **Careful listening + response**
- Noun = **Naming word**
- Verb = **Action word**
- Sentence = **Complete meaning**
- Types of sentences = **4**

## MULTIPLE CHOICE QUESTIONS (1 mark each)

1. Communication is a _____ process.

a) One-way

b) Two-way

c) Three-way

d) No-way

2. Which of these is a communication skill?

a) Listening

b) Speaking

c) Writing

d) All of the above

3. Who sends the message in communication?

a) Receiver
b) Sender
c) Reader
d) Listener

4. Which of these is the response given by receiver?

a) Channel
b) Feedback
c) Message
d) Noise

5. Active listening means:

a) Talking loudly
b) Listening carefully and responding thoughtfully
c) Reading silently
d) Writing quickly

6. Which is NOT a stage of active listening?

a) Receiving
b) Understanding
c) Dancing
d) Responding

7. Which helps in active listening?

a) Eye contact
b) Ignoring
c) Interrupting
d) Looking away

8. Which can be a barrier to active listening?

a) Noise
b) Attention
c) Feedback
d) Understanding

9. A noun is a:

a) Action word
b) Naming word
c) Joining word
d) Feeling word

10. Which is a pronoun?

a) School
b) Beautiful
c) He
d) Run

11. Which word is a verb?

a) Quickly
b) Run
c) Boy
d) Happy

12. Which word describes a noun?

a) Adjective
b) Verb
c) Pronoun
d) Interjection

13. A sentence must begin with:

a) small letter
b) Number
c) Capital letter
d) Symbol

14. Which punctuation mark ends a question?

a) .
b) !
c) ?
d) ,

15. Which sentence is interrogative?

a) I play hockey.
b) What a goal!
c) Do you play hockey?
d) Please sit down.

## ANSWER KEY

1. **b)** Two-way
2. **d)** All of the above
3. **b)** Sender
4. **b)** Feedback
5. **b)** Listening carefully and responding thoughtfully
6. **c)** Dancing
7. **a)** Eye contact
8. **a)** Noise
9. **b)** Naming word
10. **c)** He
11. **b)** Run
12. **a)** Adjective
13. **c)** Capital letter

14. **c)** ?

15. **c)** Do you play hockey?

## SHORT ANSWER QUESTIONS (2 MARKS)

1. What is communication?

2. Name any four communication skills.

3. What is active listening?

4. Write any two points to show the importance of active listening.

5. Name any four stages of active listening.

6. What is a noun? Give one example.

7. What is a verb? Give one example.

8. What is a sentence?

9. What are the parts of a sentence?

10. Name the four types of sentences.

## ANSWERS

1. What is communication?
Answer:

Communication is the process of sharing information, ideas, thoughts, or feelings between two or more people.

2. Name any four communication skills.
Answer:

- Listening
- Speaking
- Reading
- Writing

3. What is active listening?
Answer:
Active listening means listening carefully to understand the speaker and responding properly.

4. Write any two points to show the importance of

active listening.
Answer:

- Helps us understand better
- Avoids misunderstandings

5. Name any four stages of active listening.
Answer:

- Receiving
- Understanding
- Remembering
- Responding

6. What is a noun? Give one example.
Answer:
A noun is the name of a person, place, animal, or thing.
Example: Rahul / School

7. What is a verb? Give one example.
Answer:
A verb is an action word.
Example: Run / Play

8. What is a sentence?
Answer:
A sentence is a group of words that makes complete sense.

9. What are the parts of a sentence?
Answer:
The parts of a sentence are:

- Subject
- Verb
- Object

10. Name the four types of sentences.
Answer:

- Declarative sentence
- Interrogative sentence
- Exclamatory sentence
- Imperative sentence

---

# UNIT 2: SELF- MANAGEMENT SKILLS –IV

## PHYSICAL ACTIVITY TRAINER
## CLASS 12th CBSE
## SELF MANAGEMENT SKILLS – IV

"Self-management is the key to personal excellence."

### 1. SELF-MANAGEMENT

Self-management means controlling one's emotions, behaviour, thoughts, actions, time and goals.



**IMPORTANCE**

- Improves confidence
- Increases productivity
- Helps achieve goals
- Reduces stress
- Builds positive attitude

### 2. SELF-MOTIVATION

Self-motivation is the ability to do work without pressure from others.

**TYPES OF MOTIVATION**

**Internal Motivation**
Comes from inside
Example: Studying because you enjoy learning

**External Motivation**
Comes from rewards or punishment
Example: Studying for marks or prizes

**IMPORTANCE**

- Gives energy
- Helps focus on goals
- Improves learning
- Encourages hard work

### 3. SOURCES OF MOTIVATION AND INSPIRATION

- Music
- Books
- Positive activities
- Inspirational people
- Big dreams
- Positive thinking
- Mindfulness
- Living in the present



### 4. PERSONALITY

Personality is the combination of behaviour, emotions, attitude and thinking style.
It makes every person unique.



**FACTORS AFFECTING PERSONALITY**

- Heredity
- Environment
- Education
- Family
- Society

### 5. PERSONALITY TRAITS

| POSITIVE TRAITS | NEGATIVE TRAITS |
|---|---|
| Honest | Lazy |
| Confident | Aggressive |
| Helpful | Arrogant |
| Hardworking | Irresponsible |
| Responsible | |

### 6. PERSONALITY DISORDERS

Some common personality disorders are:

- **Paranoid** – Always suspicious of others
- **Antisocial** – Ignores rights of others
- **Borderline** – Mood and behaviour changes quickly
- **Narcissistic** – Excessive self-importance
- **Avoidant** – Fear of criticism / social interaction
- **Dependent** – Over-dependence on others
- **Obsessive** – Extreme perfectionism



### 7. STRESS MANAGEMENT

Stress is mental or emotional pressure.

**CAUSES OF STRESS**

- Exams
- Family pressure
- Workload
- Fear of failure
- Health issues



**WAYS TO MANAGE STRESS**

- Exercise regularly
- Meditation / Yoga
- Time management
- Proper sleep
- Positive thinking
- Talking to friends / family

### 8. GOAL SETTING

Goal setting means deciding what you want to achieve.

**SMART GOALS**



- **S** – **Specific** – Define your goal clearly
- **M** – **Measurable** – Track your progress
- **A** – **Achievable** – Realistic and possible
- **R** – **Realistic** – Should match your ability
- **T** – **Time-bound** – Set a deadline

### 9. TIME MANAGEMENT

Time management means using time effectively.




"Good time management leads to success and less stress."

### KEY TAKEAWAY

- Be motivated and stay positive.
- Understand yourself and improve your personality.
- Manage stress in a healthy way.
- Set smart goals and use time wisely.
- Self-management leads to a successful and balanced life.



# Motivation, Personality, Stress Management & Self-Development

## 1. Meaning of Self-Management

**Introduction**

Self-management means controlling and organizing one's emotions, thoughts, behaviour, actions, time, and goals in a positive way. It helps a person become disciplined, responsible, and successful in both personal and professional life.

A person with good self-management skills can:

- Stay calm during difficult situations
- Complete work on time
- Take correct decisions
- Remain focused on goals
- Maintain positive relationships

### Areas of Self-Management

Self-management includes controlling:

- **Emotions** – Managing anger, sadness, and excitement
- **Behaviour** – Acting responsibly and politely
- **Thoughts** – Developing positive thinking
- **Actions** – Doing the right work at the right time
- **Time and Goals** – Planning activities properly

### Importance of Self-Management

Self-management is important because it:

- Improves confidence
- Increases productivity
- Helps achieve goals
- Reduces stress
- Builds positive attitude
- Improves decision-making ability
- Develops leadership qualities

## 2. Self-Motivation

### Meaning of Self-Motivation

Self-motivation is the ability to encourage and inspire oneself to perform tasks and achieve goals without pressure or force from others. It is the inner drive that pushes a person to work hard, remain focused, and continue trying even during difficulties.

Example:

- A student studies regularly because they want to gain knowledge.
- An athlete practices daily to improve performance.

### Types of Motivation

| Type of Motivation | Meaning | Example |
|---|---|---|
| Internal Motivation | Comes from inside the person | Studying because learning is enjoyable |
| External Motivation | Comes from rewards or punishment | Studying for marks, prizes, or appreciation |

### Importance of Motivation

Motivation:

- Gives energy and confidence
- Helps focus on goals
- Encourages hard work
- Improves learning and performance
- Helps overcome difficulties

### Ways to Improve Self-Motivation

- Set clear goals
- Think positively
- Read inspirational books
- Reward yourself after success
- Learn from failures
- Spend time with positive people

## 3. Sources of Motivation and Inspiration

# Meaning

Motivation and inspiration are powerful forces that encourage people to work hard, think positively, and achieve success in life.

## Motivation

Motivation is the inner or outer force that encourages a person to take action and complete tasks. It gives energy, confidence, and determination to achieve goals.

## Inspiration

Inspiration is the feeling or influence that encourages a person to do something creative, positive, or meaningful. It helps people develop new ideas, dreams, and confidence.

In simple words:

- **Motivation** pushes us to work.
- **Inspiration** encourages us to dream and improve ourselves.

Both are important for personal growth, education, career success, and emotional well-being.

## Important Sources of Motivation

**1. Music**
Music refreshes the mind and improves mood.
**2. Books**
Inspirational books provide knowledge and positive ideas.
**3. Positive Activities**
Activities such as sports, drawing, gardening, and volunteering improve confidence.
**4. Inspirational People**
Teachers, parents, leaders, sportspersons, and successful personalities inspire us.
**5. Big Dreams**
Dreams motivate people to work hard and achieve success.
**6. Positive Thinking**
Positive thinking helps people remain confident during difficult times.
**7. Mindfulness**
Mindfulness means focusing on the present moment calmly.
**8. Living in the Present**
Avoid worrying too much about the past or future.

# 4. Personality

## Meaning of Personality

## Introduction

Personality is the combination of a person's behaviour, emotions, attitude, thoughts, and habits that makes them unique and different from others. It reflects how a person thinks, feels, speaks, and behaves in different situations.

Every person has a different personality. Some people are confident and friendly, while others may be shy or quiet. Personality develops over time through experiences, education, family, and environment.

## Definition of Personality

Personality can be defined as:

"The combination of behaviour, emotions, attitude, and thinking style that makes a person unique."

It includes both:

- **External qualities** such as communication and behaviour
- **Internal qualities** such as thoughts, feelings, and values

## Features of Personality

- Personality develops over time
- It influences behaviour
- It affects communication and relationships
- It reflects a person's attitude and habits

## Factors Affecting Personality

**1. Heredity**
Physical features and some qualities are inherited from parents.
**2. Environment**
Surroundings influence behaviour and habits.
**3. Education**
Education improves confidence and communication skills.
**4. Family**
Family values and upbringing shape personality.
**5. Society**
Culture, traditions, and social interactions affect personality.

# 5. Personality Traits

## Meaning of Personality Traits

Personality traits are the qualities, characteristics, and patterns of behaviour that describe how a person thinks, feels, and behaves. These traits make each individual different and unique.

**Traits influence:**

- Behaviour
- Attitude
- Communication
- Relationships
- Decision-making

Some people may be confident and friendly, while others may be shy or impatient. These qualities are called personality traits

## Positive Personality Traits

- Honest
- Confident
- Helpful
- Hardworking
- Responsible
- Kind
- Friendly
- Disciplined

### Negative Personality Traits

- Lazy
- Aggressive
- Arrogant
- Irresponsible
- Selfish
- Impatient

### Importance of Positive Traits

Positive traits:

- Improve relationships
- Build trust
- Help in teamwork
- Increase success opportunities
- Create a good impression

# 6. Personality Disorders

## Meaning

Personality disorders are mental health conditions in which a person develops unhealthy patterns of thinking, behaviour, emotions, and relationships. These patterns affect daily life, communication, studies, work, and social relationships.

## Common Personality Disorders

| Disorder | Meaning |
|---|---|
| Paranoid | Always suspicious of others |
| Antisocial | Ignores the rights and feelings of others |
| Borderline | Mood and behaviour change quickly |
| Narcissistic | Excessive self-importance |
| Avoidant | Fear of criticism and social interaction |
| Dependent | Over-dependence on others |
| Obsessive | Extreme perfectionism and control |

**Effects of Personality Disorders**

- Difficulty in relationships
- Emotional problems
- Poor communication
- Stress and anxiety

## 7. Stress Management

### Meaning of Stress

### Introduction

Stress is a natural mental and emotional reaction that occurs when a person faces pressure, challenges, fear, or difficult situations. It affects both the mind and body.

Every person experience stress at some point in life. Small amounts of stress may help people stay active and focused, but too much stress can affect health, behaviour, studies, and relationships.

## Definition of Stress

"Stress is the mental, emotional, or physical pressure experienced during difficult or demanding situations."

Stress occurs when a person feels unable to handle problems or responsibilities properly.

## Causes of Stress

- Exams
- Workload
- Financial problems
- Lack of sleep
- * Family pressure
- * Fear of failure
- * Health issues

**Symptoms of Stress**

- Headache
- Anger
- Lack of concentration
- * Anxiety
- * Tiredness
- * Poor sleep

## Ways to Manage Stress

**Exercise Regularly -** Physical activity keeps the body and mind healthy**.**

**Meditation and Yoga-** Meditation helps calm the mind and improve focus**.**

**Time Management -** Planning work properly reduces pressure.

**Proper Sleep -** Adequate sleep refreshes the brain and body**.**

**Positive Thinking -** Positive thoughts reduce fear and anxiety**.**

**Talking to Friends and Family -** Sharing problems helps reduce emotional pressure.

## Benefits of Stress Management

- Better health
- Improved concentration
- Better relationships
- Increased confidence
- Peaceful mind

# 8. Goal Setting

**Meaning of Goal Setting**

## Introduction

Goal setting is the process of deciding what we want to achieve in the future and planning the steps needed to reach that target. Goals give direction, purpose, and motivation in life.

## Definition of Goal Setting

"Goal setting means deciding specific objectives and planning to achieve them within a certain period of time."

Goals help people stay focused, organized, and motivated.

Goal setting is important in:

- Education
- Career
- Sports
- Health
- Personal development

**Types of Goals**

**Short-Term Goals-** Goals achieved in a short period.
**Example**: Completing homework today.

**Long-Term Goals -** Goals achieved after a long period.
**Example**: Becoming a doctor or teacher.

**SMART Goals**

| Letter | Meaning |
|---|---|
| S | Specific |
| M | Measurable |
| A | Achievable |
| R | Realistic |
| T | Time-bound |

**Example of a SMART Goal**

"I will study Mathematics for one hour daily and improve my marks by 10% within three months."

## 9. Time Management

**Meaning of Time Management**

## Introduction

Time management means planning and using time properly to complete tasks efficiently and achieve goals. It helps people organize their daily activities and use every moment productively.

Every person has the same 24 hours in a day, but successful people use their time wisely. Good time management improves discipline, productivity, and success in life.

### Definition of Time Management

"Time management is the process of planning and organizing time effectively to complete tasks and achieve goals."

It helps people balance studies, work, family, and personal activities properly.

**Importance of Time Management**

- Reduces stress
- Improves productivity
- Helps complete work on time
- Increases discipline
- Provides more free time

**Tips for Good Time Management**

- Make a timetable
- Set priorities
- Avoid distractions
- Complete important work first
- Take short breaks
- Avoid procrastination

**Daily Time Management Example**

| Time | Activity |
|---|---|
| 6:00 AM | Wake up and exercise |
| 7:00 AM | Breakfast and preparation |
| 9:00 AM – 4:00 PM | School/College |
| 5:00 PM | Homework/Study |
| 7:00 PM | Family time |
| 9:00 PM | Revision and sleep |

## Important One-Line Questions

1. What is self-motivation?
   → Ability to work without external pressure.
2. Name two sources of inspiration.
   →Books and music.
3. What is personality?
   →Combination of behaviour, emotions, and thinking.
4. What are SMART goals?
   →Specific, Measurable, Achievable, Realistic, Time-bound.
5. Name two stress management techniques.
   →Meditation and exercise.
6. What is mindfulness?
   →Focusing calmly on the present moment.
7. Name two positive personality traits.
   →Honest and hardworking.
8. What is time management?
   →Using time effectively.

## Important Keywords

- Self-management
- Motivation
- Personality

- Stress
- Mindfulness
- SMART goals
- Time management
- Positive attitude
- Discipline
- Confidence
- Productivity
- Goal setting
- Meditation
- Positive thinking

## Conclusion

Self-management skills help individuals become disciplined, confident, responsible, and successful in life. Motivation, stress management, positive personality traits, goal setting, and time management are essential for personal growth and self-development. A person who practices these skills can achieve success and maintain a balanced and happy life.

## MCQ's (ONE MARK EACH)

**1. Self-management skills help a person to:**

A. Depend on others for decisions
B. Control emotions and behavior effectively
C. Avoid responsibilities
D. Ignore personal goals

**2. Which of the following is an example of self-awareness?**

A. Understanding your strengths and weaknesses
B. Blaming others for mistakes
C. Avoiding teamwork
D. Ignoring feedback

**3. Stress management means:**

A. Increasing workload unnecessarily
B. Handling pressure calmly and effectively
C. Avoiding all responsibilities
D. Sleeping throughout the day

**4. Which activity helps reduce stress?**

A. Regular exercise B. Overeating junk food

C. Excessive screen time D. Ignoring problems

**5. Goal setting is important because it:**

A. Wastes time B. Creates confusion

C. Gives direction and motivation D. Reduces confidence

**6. SMART goals are:**

A. Simple, Meaningful, Accurate, Realistic, Timely

B. Specific, Measurable, Achievable, Relevant, Time-bound

C. Strong, Manageable, Active, Responsible, Tough

D. Skilled, Motivated, Active, Reliable, Targeted

**7. Time management helps students to:**

A. Delay work B. Increase stress

C. Complete tasks efficiently D. Avoid planning

**8. Which of the following is a good time-management practice?**

A. Procrastination B. Making a daily schedule

C. Ignoring deadlines D. Sleeping during study time

**9. Positive thinking helps in:**

A. Reducing confidence B. Improving motivation and performance

C. Creating fear D. Avoiding challenges

**10. Physical activity improves:**

A. Only physical health B. Only mental health

C. Both physical and mental health D. Neither physical nor mental health

**11. Which of the following is a sign of good self-discipline?**

A. Giving up easily B. Avoiding responsibilities

C. Breaking rules regularly D. Completing tasks on time

**12. Motivation is:**

A. A type of punishment B. A reason to quit

C. A force that encourages action D. Lack of confidence

**13. Which factor is important for maintaining mental wellness?**

A. Unhealthy eating habits B. Constant worry

C. Isolation from others D. Proper sleep

**14. Effective communication includes:**

A. Listening carefully B. Interrupting others

C. Ignoring opinions D. Speaking angrily

**15. Self-confidence means:**

A. Depending completely on others B. Fear of failure

C. Avoiding challenges D. Trusting one's abilities

**1.B 2.A 3. B 4.A 5.C 6.B 7.C 8.B 9.B 10.C 11.D 12.C 13.D 14.A 15. D**

## Short Answer Questions

1. What are self-management skills?
2. Why are self-management skills important for a Physical Activity Trainer?
3. Mention two causes of stress in daily life.
4. How does physical activity help in reducing stress?
5. What is the importance of time management?
6. What is self-motivation?
7. How can a trainer remain self-motivated?
8. State any two qualities of a good Physical Activity Trainer.
9. Why is communication important in self-management?
10. How does yoga help in self-management?

**ANSWERS**

1. Self-management skills are abilities that help a person control emotions, behavior, time, and actions effectively.

2.They help trainers stay disciplined, organized, confident, and professional while guiding clients.

3. Work pressure and lack of time are common causes of stress.

4.Physical activity relaxes the mind, improves mood, and releases positive hormones.

5. Time management helps complete tasks efficiently and increases productivity.

6.Self-motivation is the inner drive to achieve goals without external pressure.

7.By setting goals, maintaining discipline, and thinking positively.

8.Discipline and communication skills.

9.Good communications improves understanding and relationships with others.

10.Yoga improves concentration, reduces stress, and keeps the body fit.

## Long Answer Questions

1. Explain self-management and its importance in the life of a Physical Activity Trainer.

2. Describe the importance of stress management and explain different ways to manage stress.

3. Explain the concept of motivation and discuss its types.

4. Explain the importance of positive attitude and self-confidence in professional life.

5. Discuss the role of goal setting in self-management.

6. Explain the importance of emotional intelligence in self-management.

7. How can a healthy lifestyle improve self-management skills?

## ANSWERS

1. Self-management is the ability to control one's emotions, behavior, time, and actions in a disciplined manner. It helps a person remain focused, responsible, and productive.

For a Physical Activity Trainer, self-management is very important because:

- It helps maintain discipline and punctuality.
- It improves physical and mental fitness.
- It develops leadership qualities.
- It helps trainers motivate others effectively.
- It supports stress management during competitions and training sessions.
- It improves communication and professional behavior.

A trainer with good self-management skills can achieve personal goals and become a role model for students and athletes.

2. Stress management means controlling and reducing stress to maintain physical and mental well-being. Stress may arise due to workload, competitions, examinations, or personal problems.

## Importance of stress management:

- Improves concentration and performance.
- Maintains emotional balance.
- Prevents anxiety and depression.
- Improves decision-making ability.
- Keeps the body healthy and energetic.

## Ways to manage stress:

1. Regular exercise and yoga
2. Meditation and deep breathing
3. Proper time management
4. Healthy diet and sleep
5. Positive thinking
6. Talking to friends, teachers, or counselors
7. Taking short breaks and engaging in hobbies

Stress management helps trainers remain calm, confident, and productive.

3. Motivation is the inner drive that encourages a person to act and achieve goals. It gives energy, direction, and confidence.

**Types of motivation:**

***(a) Intrinsic Motivation***

It comes from within the person.

Example:

- Playing sports for enjoyment
- Exercising for fitness and satisfaction

***(b) Extrinsic Motivation***

It comes from external rewards or recognition.

**Example:**

- Winning medals or certificates
- Receiving praise from coaches or parents

**Importance of motivation:**

- Improves performance
- Builds confidence
- Encourages hard work
- Helps achieve goals
- Creates positive attitude

A motivated Physical Activity Trainer can inspire students and athletes to perform better.

4. A positive attitude means thinking optimistically and handling situations calmly. Self-confidence is the belief in one's abilities and skills.

**Importance of positive attitude:**

- Helps overcome difficulties * Improves relationships
- Reduces stress * Encourages teamwork
- Increases motivation

**Importance of self-confidence:**

- Improves decision-making * Enhances communication skills
- Increases leadership qualities * Helps face challenges boldly
- Encourages better performance

For a Physical Activity Trainer, positive attitude and self-confidence are essential to motivate athletes, manage teams, and perform responsibilities effectively.

**5.** Goal setting means deciding clear objectives that a person wants to achieve within a specific time.

**Role of goal setting:**

- Provides direction and focus
- Increases motivation
- Helps track progress
- Improves confidence
- Encourages discipline and hard work

**Types of goals:**

1. Short-term goals – achieved in a short period
2. Long-term goals – achieved over a longer period

**Steps in goal setting:**

- Identify the goal
- Make the goal realistic
- Prepare an action plan
- Monitor progress regularly
- Stay motivated and consistent

Goal setting helps Physical Activity Trainers improve their professional skills and achieve success in sports and fitness careers.

6. Emotional intelligence is the ability to understand, control, and manage emotions effectively.

Components of emotional intelligence:

- ❖ Self-awareness * Self-control
- ❖ Motivation * Empathy
- ❖ Social skills

**Importance:**

- ❖ Helps manage anger and frustration * Improves communication
- ❖ Builds strong relationships * Helps resolve conflicts
- ❖ Enhances teamwork and leadership

For a Physical Activity Trainer, emotional intelligence is important to guide students, handle pressure situations, and maintain a positive environment during training.

7. A healthy lifestyle includes balanced nutrition, regular exercise, proper sleep, hygiene, and mental wellness practices.

**Benefits of a healthy lifestyle:**

- Increases energy and stamina
- Improves concentration and memory
- Reduces stress and illness
- Builds discipline and self-control
- Improves emotional balance

**Healthy habits that improve self-management:**

1. Daily physical exercise
2. Balanced diet
3. Adequate sleep
4. Meditation and yoga
5. Avoiding harmful substances
6. Maintaining personal hygiene

A healthy lifestyle helps Physical Activity Trainers remain fit, active, and productive in their professional and personal lives.

# UNIT 3

# INFORMATION AND COMMUNICATION TECHNOLOGY SKILLS

## CORE ESSENTIALS

### Hardware vs. Software



**Hardware:** Tangible elements (CPU, keyboard)

**Software:** Intangible programs enabling operation

### The OS Bridge



**Operating System:** Manages hardware, allocates memory, organizes files & folders

### Common OS Types

- **Single-user** (Windows/macOS)
- **Multi-user**
- **Real-time** (Time-sensitive)
- **Distributed** (Network-based, Linux/UNIX)

## NAVIGATION & FILE MANAGEMENT

### Files vs. Folders



**File:** Single unit of saved data

**Folder:** Container for files & subfolders

### The Windows Desktop



**Start Button:** Program access

**Taskbar:** Active shortcuts

**Recycle Bin:** Temporary deleted items storage

### Quick Management




**Create naw:** Right-click empty area

**F2 key:** Rename quickly

## MAINTENANCE & CARE

### Hardware Hygiene




**Turn off** systems before cleaning; apply liquids to cloth first, not directly

### Component-Specific Cleaning



**Shake** keyboards upside down for debris

**Clean CO/DVDs** circular motion from center outward

### System Optimization



**Improve speed:** Limit background apps, delete temp files (Run: "%temp%")

## SECURITY & DIGITAL SAFETY

### Understanding Malware



**Worms:** Self-replicating

**Trojan Horses:** Destructive programs disguised as helpful

### Cybersecurity Toolkit



- **Strong mixed-character passwords**
- **BitLocker encryption**
- **Active firewalls/antivirus software**

### Online Risk Awareness




Watch out for prodators & scams (e.g., fake lottery wins) stealing financial data

## THE PROFESSIONAL MAINTENANCE SCHEDULE



### Daily & Weekly Habits

**Daily**: Organize emails & attachments.
**Weekly**: Backup data to external drives, dust CPU & printer.



### Monthly Tasks

Run virus/disk cleanup scans, uninstall unused apps, clear "Downloads" folder.



### Yearly Review

Perform full OS updates, refresh antivirus subscriptions, inspect hardware for replacements.

## EFFICIENCY & SHORTCUTS

**Data Table**

| Shortcut | Action | Shortcut | Action |
|---|---|---|---|
| CTRL + S | Save | CTRL + C | Copy |
| CTRL + Z | Undo | CTRL + V | Paste |
| CTRL + Y | Redo | CTRL + A | Select All |
| CTRL + X | Cut | CTRL + P | Print |

## Learning Outcomes

- Distinguish between different operating systems
- Apply basic skills for care and maintenance of computer

## Main points:

### The Significance of Developing ICT Proficiency

Gaining and improving ICT (Information and Communication Technology) skills is vital for efficient communication, smooth business processes, and staying connected with others. As technology rapidly evolves, it becomes imperative for individuals to consistently update their skills to adapt to new applications and software tools.

### Components of a Computer System

A computer consists of two main categories:

- Hardware: These are the tangible elements like the monitor, keyboard, and CPU that you can physically interact with.
- Software: These are intangible elements that allow the hardware to operate.

### Operating System (OS)

The OS acts as a bridge between the user and computer, managing resources and executing programs. It performs several critical roles:

1. Monitors hardware and its usage.
2. Ensures smooth functioning of hardware components.
3. Manages software applications.
4. Allocates and monitors memory usage for each task.
5. Organizes system files and folders.
6. Keeps track of disk usage.
7. Facilitates file operations like creating, copying, moving, and deleting files.

### Types of Operating Systems

- Single-user, single-task OS: Handles one task by a single user at a time.
- Single-user, multi-task OS: Common in laptops and desktops; allows multiple applications to run concurrently (e.g., Windows, macOS).
- Multi-user OS: Supports multiple users on the same system, simultaneously or sequentially.

- Real-time OS: Designed for time-sensitive operations (e.g., Lynx OS, Windows CE).
- Distributed OS: Connects multiple computers over a network to function as one system (e.g., UNIX, Linux, Windows).
- GUI-based (Graphical User Interface) OS: Enables interaction through mouse clicks and visuals, like Windows.

**Understanding Windows Desktop Elements**

- Taskbar: Located at the screen's bottom, containing the Start button on the left and time/date on the right, along with shortcut icons.
- Start Button: Gives access to various programs and system settings.
- Recycle Bin: Temporarily stores deleted files and folders for recovery before permanent deletion.

**Managing Files and Folders**

- File: A unit of data saved on the computer.
- Folder: A container to organize files and even other folders (subfolders).

**Creating a File:**

1. Right-click in an empty area.
2. Select New > File type (e.g., Text Document, Word).

**Renaming:**

- Right-click > Rename, or
- Select and press F2.

**Creating a Folder:**

1. Open "This PC" or "Computer".
2. Choose the drive (e.g., Local Disk D:).
3. Click New Folder on the toolbar.
4. Enter a name when prompted.

**Deleting:**

- Select file/folder > Press Delete, or
- Right-click > Choose Delete.

**Essential Keyboard Shortcuts**

- CTRL + Z – Undo
- CTRL + Y – Redo
- CTRL + A – Select All
- CTRL + X – Cut

- CTRL + C – Copy
- CTRL + V – Paste
- CTRL + P – Print
- CTRL + S – Save

**Basic Computer Care and Maintenance**

Regular upkeep ensures that the system runs smoothly and lasts longer.

General Tips:

1. Keep the system clean and dust-free.
2. Avoid eating/drinking near the computer.
3. Wash hands before using peripherals.
4. Store CDs/DVDs properly.
5. Use a cover for the keyboard when not in use.

**Cleaning Hardware Components**

- Turn off the system before cleaning.
- Never spray liquid directly—apply it on a cloth first.
- Use anti-static tools to prevent damage.

**Specific Components:**

- Monitor: Use soft, lint-free cloth and avoid liquid contact with seams.
- Keyboard: Shake gently upside down to remove debris.
- Mouse: Clean the lens and surface with a dry cloth or air.
- CD/DVDs: Clean in a circular motion from center outward.

**Maintenance Schedule**

**Daily**:

- Organize emails.
- Download and store attachments properly.

**Weekly**:

- Clean keyboard and monitor.
- Dust CPU and printer.
- Backup data to external drive.

**Monthly**:

- Transfer and organize photos.
- Clean the 'Downloads' folder.
- Uninstall unused apps.
- Run virus and disk cleanup scans.

**Yearly**:

- Update OS and antivirus.

- Clean up contact lists.
- Check hardware for replacements.

**Backup and Recovery**

- Back up essential data to CD/DVDs, external drives, or cloud.
- Regular backups ensure data safety during crashes or disasters.

**System Optimization**

- Clean temporary files (use %temp% via Windows + R).
- Remove unwanted emails and SPAM.
- Uninstall unnecessary programs.
- Limit background apps for better speed.

**Threats to Computer Systems**

- Physical Theft: Hardware stolen.
- Identity Theft: Personal data is misused.
- Software Piracy: Unauthorized software usage.
- Virus: Damages or steals data.

**Types of Viruses:**

- Worms: Self-replicating and widespread.
- Trojan Horse: Disguised as helpful but is destructive.

**Cybersecurity Measures**

- Use strong passwords with a mix of characters.
- Install antivirus and firewalls.
- Encrypt data using tools like BitLocker.
- Use HTTPS websites for safe transactions.

**Online Safety Risks**

- Online Predators: Pretend to be friends to manipulate or exploit.
- Internet Scams: Fake lottery wins or offers to steal money and data.

## Multiple Choice Questions

Q1. **Which of the following is an example of system software?**

a) MS Excel b) Windows 10

a. c) Adobe Photoshop d) VLC Player

Q2. **What is the shortcut key to paste copied content?**

a) Ctrl + C b) Ctrl + V c) Ctrl + X d) Ctrl + Z

Q3. **The Recycle Bin in Windows stores deleted files for how long?**

a) Permanently deletes instantly b) Stores temporarily until emptied

c) Stores for 30 days only d) None of the above

Q4. **What does an operating system do?**

a) Manages hardware and software resources b) Helps to create documents c) Provides antivirus protection d) Manages internet speed

Q5. **Which of the following is NOT an operating system?**

a) Windows b) Linux c) Microsoft Word d) macOS

Q6. **Which key combination is used to undo the last action?**

a) Ctrl + Y b) Ctrl + Z c) Ctrl + S d) Ctrl + A

Q7. **Which of the following protects a computer from unauthorized access?**

a) Firewall b) Keyboard c) Printer d) Operating system

Q8. **What does Ctrl + S do in most applications?**

a) Save the file b) Select all content c) Close the application d) Open a new window

Q9. **Which of the following is an example of application software?**

a) Linux b) MS Word c) BIOS d) Windows 10

Q10. **What is the purpose of creating backups?**

a) To improve system speed b) To recover lost data c) To upgrade software d) To delete unwanted files

Q11. **Which key combination is used to copy selected text or files?**

a) Ctrl + C b) Ctrl + V c) Ctrl + X d) Ctrl + P

Q12. **Which of the following is NOT a preventive maintenance practice?**

a) Keeping software updated b) Using antivirus software c) Eating food near the computer d) Cleaning hardware regularly

Q13. **Which hardware component is used for input?**

a) Monitor b) Keyboard c) Speaker d) Printer

Q14. **What is the function of the Start button in Windows?**

a) Shuts down the computer b) Opens the Start menu c) Minimizes all windows d) Opens Control Panel

Q15. **Which key combination is used to cut selected content?**

a) Ctrl + X b) Ctrl + C c) Ctrl + V d) Ctrl + A

**Answer Key**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| b | b | b | a | c | b | a | a | b | b |
| 11 | 12 | 13 | 14 | 15 | | | | | |
| a | c | b | b | a | | | | | |

## Short Answer Type Questions (2 Marks)

**Q1. What is an operating system? Give two examples.**
Answer: An operating system (OS) is software that manages computer hardware and software resources and provides common services for computer programs. Examples: Windows, Linux.

**Q2. Explain the function of the Recycle Bin in Windows.**
Answer: The Recycle Bin temporarily stores deleted files and folders, allowing users to restore accidentally deleted items or permanently delete them later.

**Q3. Name any two preventive maintenance practices for a computer.**
Answer: Regularly updating antivirus software to protect against malware.
Cleaning hardware components like keyboard and CPU to avoid dust buildup
.

**Q4. What are system software and application software? Give one example each.**
Answer: System software helps run the computer hardware and system (e.g., Operating System like Windows).
Application software performs specific tasks for users (e.g., Microsoft Word).

**Q5. Why is it important to create backups of data?**
Answer: Backups prevent data loss due to accidental deletion, hardware failure, or virus attacks by keeping copies of important files in a safe place.

**Q6. What is the shortcut key to save a file? Explain its use.**
Answer: The shortcut key to save a file is Ctrl + S. It quickly saves the current document or file without needing to use the mouse or menu options.

**Q7. Explain the function of a firewall in computer security.**
Answer: A firewall acts as a security barrier between a trusted network and untrusted networks, blocking unauthorized access and protecting the computer from malicious attacks.

**Q8. Describe two functions of the Start menu in Windows.**
Answer: Provides quick access to installed programs and applications.
Allows users to search files, settings, and access system features.
**Q9. What is the difference between 'Cut' and 'Copy' commands?**
Answer: Cut removes the selected content from its original place and moves it to the clipboard.
Copy duplicates the selected content without removing it and stores it in the clipboard.

**Q10. List any two hardware components used for input and output.**
Answer: Input hardware: Keyboard, Mouse Output hardware: Monitor, Printer

**UNIT -IV**

**ENTREPRENEURSHIP SKILLS**



# ENTREPRENEURSHIP SKILLS

Entrepreneurship skills are the abilities and qualities needed to identify opportunities, start a business, manage risks, and create value through innovation and leadership. These skills help individuals become self-reliant, confident, and capable of solving real-world problems.



## SESSION 1: ENTREPRENEURSHIP AND ENTREPRENEUR

### 1. Meaning of Entrepreneurship

Entrepreneurship is the process of starting and running a business by taking risks in order to earn profit and create value.

**It involves:**

- Identifying opportunities
- Organizing resources
- Innovating new ideas
- Taking financial and personal risks



### 2. Meaning of Entrepreneur

An entrepreneur is a person who starts, organizes, and manages a business enterprise while taking risks to earn profits.

### 3. Examples of Entrepreneurs



Dhirubhai Ambani



Kiran Mazumdar-Shaw



N. R. Narayana Murthy



Elon Musk

### 4. Characteristics of an Entrepreneur

1. Risk-taking ability
2. Creativity and innovation
3. Self-confidence
4. Leadership qualities
5. Decision-making ability
6. Hardworking nature
7. Goal-oriented mindset

### 5. Importance of Entrepreneurship

| Generates employment | Promotes economic development | Encourages innovation | Improves standard of living | Supports social change |
|---|---|---|---|---|

## SESSION 2: BARRIERS TO ENTREPRENEURSHIP

Barriers are obstacles that make it difficult for people to start or run a business successfully.

### 1. Common Barrier's

| | |
|---|---|
| 1. Financial Barriers | • Lack of capital or funds<br>• Difficulty in getting loans |
| 2. Social Barriers | • Family pressure<br>• Lack of social support<br>• Fear of criticism |
| 3. Personal Barriers | • Fear of failure<br>• Lack of confidence<br>• Poor decision-making skills |
| 4. Educational Barriers | • Lack of business knowledge<br>• Limited technical skills |
| 5. Market Barriers | • High competition<br>• Lack of customers<br>• Changing market trends |

### 2. Ways to Overcome Barriers

| Develop skills through training | Build self-confidence | Seek mentorship and guidance | Create proper business plans | Improve networking and communication |
|---|---|---|---|---|

## SESSION 3: ENTREPRENEURIAL ATTITUDES

Entrepreneurial attitude refers to the mindset and behavior that help a person become a successful entrepreneur.

### 1. Important Entrepreneurial Attitudes

| | |
|---|---|
| 1. Positive Thinking | Believing in success and staying motivated. |
| 2. Initiative | Taking action without waiting for instructions. |
| 3. Responsibility | Being accountable for decisions and actions. |
| 4. Persistence | Continuing efforts despite difficulties. |
| 5. Adaptability | Adjusting to changing situations and market conditions. |
| 6. Creativity | Finding new ideas and innovative solutions. |
| 7. Discipline | Managing time and work efficiently. |

### 2. Benefits of Entrepreneurial Attitudes

| Improves confidence | Enhances leadership | Helps achieve goals | Encourages problem-solving |
|---|---|---|---|

## SESSION 4: ENTREPRENEURIAL COMPETENCIES

Entrepreneurial competencies are the skills, knowledge, and abilities required to perform entrepreneurial activities effectively.

### 1. Major Entrepreneurial Competencies

| | |
|---|---|
| 1. Opportunity Seeking | Ability to identify business opportunities. |
| 2. Risk Management | Taking calculated risks after proper planning. |
| 3. Decision Making | Choosing the best solution among alternatives. |
| 4. Communication Skills | Sharing ideas clearly with customers, employees, and investors. |
| 5. Leadership Skills | Guiding and motivating team members. |
| 6. Problem-Solving Skills | Finding effective solutions to challenges. |
| 7. Time Management | Completing tasks efficiently within deadlines. |
| 8. Networking Skills | Building professional relationships for business growth. |

### 2. Importance of Entrepreneurial Competencies

| Increases business success | Improves productivity | Helps in effective management | Builds customer satisfaction |
|---|---|---|---|

## CONCLUSION

Entrepreneurship plays an important role in economic and social development. Entrepreneurs use their skills, attitudes, and competencies to overcome barriers and build successful businesses. Developing entrepreneurial qualities can help individuals become innovative, independent, and future-ready.



## Entrepreneurship Skills

Entrepreneurship skills are the abilities and qualities needed to identify opportunities, start a business, manage risks, and create value through innovation and leadership. These skills help individuals become self-reliant, confident, and capable of solving real-world problems.

**1: Entrepreneurship and Entrepreneur**

Meaning of Entrepreneurship

Entrepreneurship is the process of starting and running a business by taking risks in order to earn profit and create value.

**It involves:**

* Identifying opportunities
* Organizing resources
* Innovating new ideas
* Taking financial and personal risks

**Meaning of Entrepreneur**

An entrepreneur is a person who starts, organizes, and manages a business enterprise while taking risks to earn profits.

Examples of Entrepreneurs




* Dhirubhai Ambani * Kiran Mazumdar-Shaw * N. R. Narayana Murthy * Elon Musk

**Characteristics of an Entrepreneur**

1. Risk-taking ability
2. Creativity and innovation
3. Self-confidence
4-. Leadership qualities
5. Decision-making ability
6. Hardworking nature
7. Goal-oriented mindset

**Importance of Entrepreneurship**

* Generates employment
* Promotes economic development
* Improves standard of living
* Supports social change

**Barriers to Entrepreneurship**

Barriers are obstacles that make it difficult for people to start or run a business successfully.

**Common Barrier's**

1**. Financial Barriers**

* Lack of capital or funds * Difficulty in getting loans

**2. Social Barriers**

* Family pressure * Lack of social support * Fear of criticism

**3. Personal Barriers**

* Fear of failure * Lack of confidence * Poor decision-making skills

**4. Educational Barriers**

* Lack of business knowledge * Limited technical skills

**5. Market Barriers**

* High competition * Lack of customers * Changing market trends

**Ways to Overcome Barriers**

* Develop skills through training
* Build self-confidence
* Seek mentorship and guidance
* Create proper business plans
* Improve networking and communication

**Entrepreneurial Attitudes**

Entrepreneurial attitude refers to the mindset and behavior that help a person become a successful entrepreneur.

**Important Entrepreneurial Attitudes**

**1. Positive Thinking**

Believing in success and staying motivated.

**2. Initiative**

Taking action without waiting for instructions.

**3. Responsibility**

Being accountable for decisions and actions.

**4. Persistence**

Continuing efforts despite difficulties.

**5. Adaptability**

Adjusting to changing situations and market conditions.

**6. Creativity**

Finding new ideas and innovative solutions.

**7. Discipline**

**Managing time and work efficiently.**

**Benefits of Entrepreneurial Attitudes**

* Improves confidence
* Helps achieve goals
* Enhances leadership
* Encourages problem-solving

**Entrepreneurial Competencies**

Entrepreneurial competencies are the skills, knowledge, and abilities required to perform entrepreneurial activities effectively.

**Major Entrepreneurial Competencies**

1. Opportunity Seeking

Ability to identify business opportunities.

**2. Risk Management**

Taking calculated risks after proper planning.

**3. Decision Making**

Choosing the best solution among alternatives.

**4. Communication Skills**

Sharing ideas clearly with customers, employees, and investors.

**5. Leadership Skills**

Guiding and motivating team members.

**6. Problem-Solving Skills**

Finding effective solutions to challenges.

**7. Time Management**

Completing tasks efficiently within deadlines.

8. **Networking Skills**

**Building professional relationships for business growth.**

**Importance of Entrepreneurial Competencies**

* Increases business success
* Improves productivity
* Helps in effective management
* Builds customer satisfaction

**Conclusion**

Entrepreneurship plays an important role in economic and social development. Entrepreneurs use their skills, attitudes, and competencies to overcome barriers and build successful businesses. Developing entrepreneurial qualities can help individuals become innovative, independent, and future-rea

## Multiple Choice Questions (MCQs) – Entrepreneurship Skills

1. What is entrepreneurship?
   A. Buying products only
   B. Process of starting and running a business
   C. Working in a Market
   D. Taking risks and creating value

2. Who is called an entrepreneur?
   A. A government employee
   B. A teacher
   C. A person who starts and manages a business
   D. A customer

3. Which of the following is an example of an entrepreneur?
A. Mahatma Gandhi
B. Elon Musk
C. Sachin Tendulkar
D. APJ Abdul Kalam

4. Which quality is important for an entrepreneur?
A. Laziness
B. Fearfulness
C. Risk-taking ability
D. Carelessness

5. Entrepreneurship helps in:
A. Increasing unemployment
B. Economic development
C. Reducing creativity
D. Stopping innovation

6. Lack of funds is an example of:
A. Social barrier
B. Financial barrier
C. Educational barrier
D. Personal barrier

7. Fear of failure is a:
A. Market barrier
B. Financial barrier
C. Personal barrier
D. Social barrier

8. Which barrier includes family pressure?
A. Social barrier
B. Educational barrier
C. Market barrier
D. Technical barrier

9. Which of the following can help overcome barriers?
A. Ignoring problems
B. Avoiding training
C. Building self-confidence
D. Stopping communication

10. Positive thinking means:
A. Believing in success
B. Avoiding work
C. Taking no risks
D. Criticizing others

11. Which attitude means continuing efforts despite difficulties?
A. Discipline
B. Persistence
C. Creativity
D. Adaptability

12. Opportunity seeking means:
A. Avoiding business ideas
B. Identifying business opportunities
C. Spending money carelessly
D. Ignoring customers

13. Communication skills help entrepreneurs to:
A. Sleep more
B. Share ideas clearly
C. Avoid teamwork
D. Reduce profits

14. Which competency helps in completing tasks on time?
A. Networking
B. Leadership
C. Time management
D. Risk management

15. Entrepreneurial competencies are important because they:
A. Reduce productivity
B. Increase business success
C. Create confusion
D. Stop innovation

## Multiple Question Answer Key

1. B
2. C
3. B
4. C
5. B
6. B
7. C
8. A
9. C
10. A
11. B
12. B
13. B
14. C
15. B

# Short Questions – Entrepreneurship Skills (2 MARKS)

1. Define entrepreneurship.

2. Who is an entrepreneur?

3. Name any two famous entrepreneurs.

4. Mention any two characteristics of an entrepreneur.

5. State any two importance of entrepreneurship.

6. What are financial barriers in entrepreneurship?

7. Mention any two social barriers to entrepreneurship.

8. What is meant by personal barriers?

9. Write any two ways to overcome entrepreneurial barriers.

10. What is entrepreneurial attitude?

## Short Answer Questions – Entrepreneurship Skills (2 MARKS)

1. Entrepreneurship is the process of starting and running a business by taking risks to earn profit and create value.

2. An entrepreneur is a person who starts, organizes, and manages a business enterprise while taking risks.

3. Dhirubhai Ambani and Elon Musk are famous entrepreneurs.

4. Two characteristics of an entrepreneur are risk-taking ability and creativity.

5. Entrepreneurship generates employment and promotes economic development.

6. Financial barriers are problems related to lack of funds and difficulty in getting loans.

7. Two social barriers are family pressure and lack of social support.

8. Personal barriers are individual problems like fear of failure and lack of confidence.

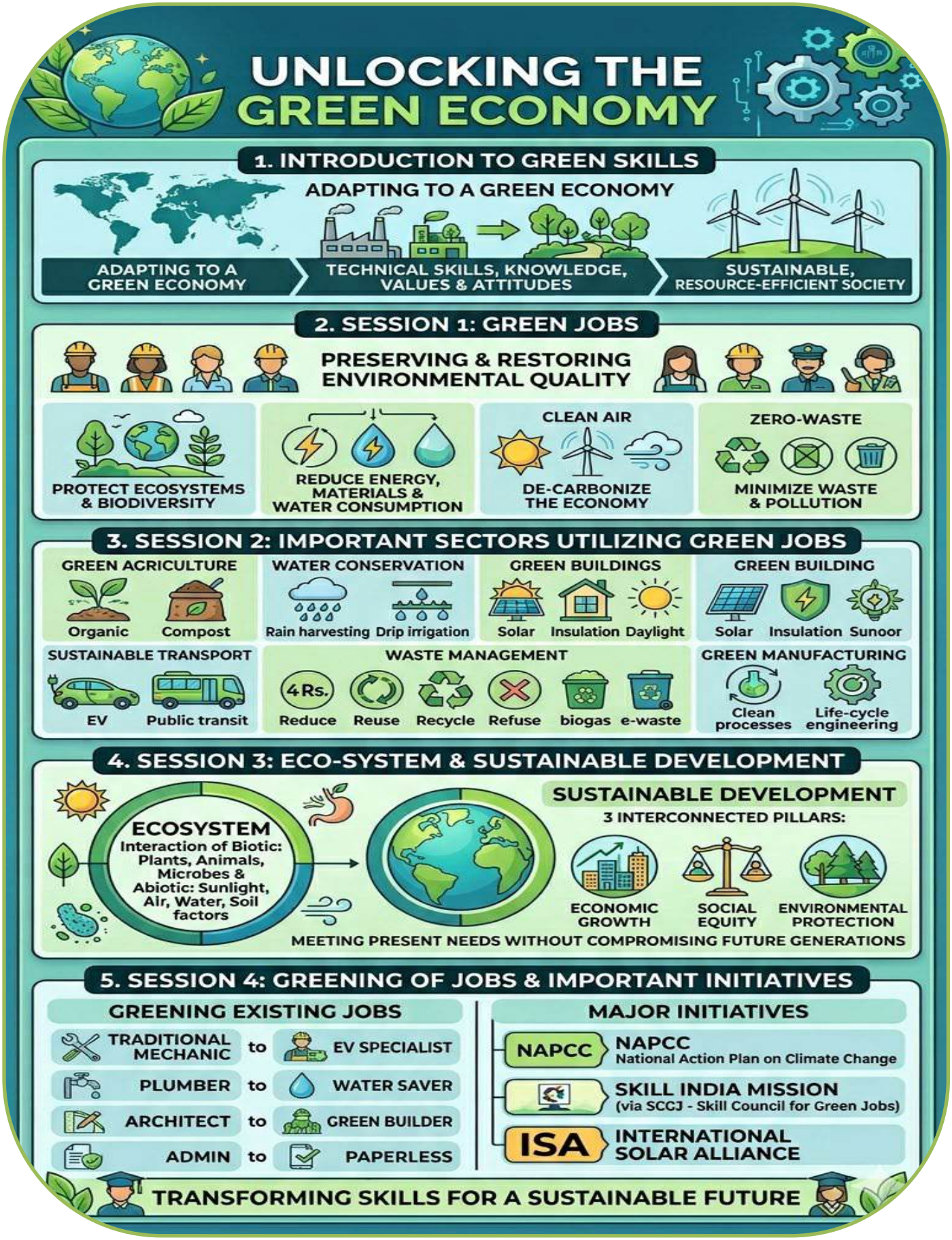
9. Entrepreneurial barriers can be overcome through training and building self-confidence.

10. Entrepreneurial attitude is the mindset and behavior that help a person become a successful entrepreneur.

UNIT -V

# GREEN SKILLS




UNLOCKING THE GREEN ECONOMY
1. INTRODUCTION TO GREEN SKILLS
ADAPTING TO A GREEN ECONOMY
ADAPTING TO A GREEN ECONOMY
TECHNICAL SKILLS, KNOWLEDGE, VALUES & ATTITUDES
SUSTAINABLE, RESOURCE-EFFICIENT SOCIETY
2. SESSION 1: GREEN JOBS
PRESERVING & RESTORING ENVIRONMENTAL QUALITY
PROTECT ECOSYSTEMS & BIODIVERSITY
REDUCE ENERGY, MATERIALS & WATER CONSUMPTION
CLEAN AIR
DE-CARBONIZE THE ECONOMY
ZERO-WASTE
MINIMIZE WASTE & POLLUTION
3. SESSION 2: IMPORTANT SECTORS UTILIZING GREEN JOBS
GREEN AGRICULTURE
Organic
Compost
WATER CONSERVATION
Rain harvesting
Drip irrigation
GREEN BUILDINGS
Solar
Insulation
Daylight
GREEN BUILDING
Solar
Insulation
Sunoor
SUSTAINABLE TRANSPORT
EV
Public transit
WASTE MANAGEMENT
4 Rs.
Reduce
Reuse
Recycle
Refuse
biogas
e-waste
GREEN MANUFACTURING
Clean processes
Life-cycle engineering
4. SESSION 3: ECO-SYSTEM & SUSTAINABLE DEVELOPMENT
ECOSYSTEM
Interaction of Biotic: Plants, Animals, Microbes & Abiotic: Sunlight, Air, Water, Soil factors
SUSTAINABLE DEVELOPMENT
3 INTERCONNECTED PILLARS:
ECONOMIC GROWTH
SOCIAL EQUITY
ENVIRONMENTAL PROTECTION
MEETING PRESENT NEEDS WITHOUT COMPROMISING FUTURE GENERATIONS
5. SESSION 4: GREENING OF JOBS & IMPORTANT INITIATIVES
GREENING EXISTING JOBS
TRADITIONAL MECHANIC to EV SPECIALIST
PLUMBER to WATER SAVER
ARCHITECT to GREEN BUILDER
ADMIN to PAPERLESS
MAJOR INITIATIVES
NAPCC
NAPCC
National Action Plan on Climate Change
SKILL INDIA MISSION
(via SCCJ - Skill Council for Green Jobs)
ISA
INTERNATIONAL SOLAR ALLIANCE
TRANSFORMING SKILLS FOR A SUSTAINABLE FUTURE

## INTRODUCTION TO GREEN SKILLS

In the modern world, rapid industrialization, population expansion, and unsustainable economic models have placed unprecedented stress on the Earth's biosphere. Natural challenges such as climate change, global warming, resource depletion, and severe environmental pollution are no longer distant theoretical concerns—they represent immediate, active global crises. To curb these challenges and establish a sustainable economy, the international workforce is undergoing a massive structural transformation toward a "Green Economy" model.

Green Skills are defined as the technical skills, collective knowledge, moral values, and proactive attitudes required by the workforce to develop, manage, and maintain a sustainable, resource-efficient, and eco-friendly society. For students of Class XII, mastering green skills is critical. This knowledge prepares individuals to adapt to a highly dynamic job market where environmental literacy and compliance are increasingly mandatory across all traditional professions.

## UNDERSTANDING GREEN JOBS

A "Green Job" is any position or employment opportunity across agriculture, manufacturing, research and development, administration, or service-oriented sectors that contributes directly and substantially to preserving, protecting, or restoring environmental health and ecological stability. These specialized job roles focus explicitly on diminishing the destructive environmental footprints left behind by commercial enterprises and industrial activities.

The primary objectives and operational goals of Green Jobs include the following:

- **Protecting Ecosystems and Biodiversity:** Focusing heavily on restoring degraded soils, managing wildlife sanctuaries, protecting highly vulnerable wetlands, and reversing the rapid extinction of vital flora and fauna.
- **Optimizing Resource Consumption Efficiency:** Engineering workflows that drastically minimize the baseline consumption of electricity, raw structural materials, and fresh industrial water cycles.
- **De-carbonizing the Local Economy:** Developing and maintaining strategies that minimize or eliminate dangerous greenhouse gas emissions, primarily by managing transition grids to clean, fully renewable energy sources.
- **Eradicating Waste and Pollution:** Designing modern circular product pipelines, establishing total zero-waste manufacturing architectures, and preventing hazardous chemicals from running off into water systems or the atmosphere.

## CORE SECTORS UTILIZING GREEN JOBS

Green jobs are no longer exclusive to isolated environmental advocacy groups. Instead, they are deeply integrated into every traditional cornerstone sector of the global economy, completely restructuring how business operates:

- **Green Agriculture:**

  Conventional chemical-intensive farming rely on severe synthetic pesticides and artificial nitrogenous fertilizers, which trigger continuous soil degradation, poison local groundwater reserves, and disrupt macro-ecological food webs. Green agriculture introduces organic cultivation techniques, integrated pest management (IPM), natural bio-fertilizers (such as vermicompost and cow-dung manures), and periodic crop rotation grids. This preserves the soil microbiomes, maximizes food safety, and guarantees reliable, long-term agricultural food security.

- **Water Conservation Systems:**

  Due to accelerating global freshwater depletion, green jobs in water conservation emphasize large-scale rainwater harvesting, wastewater treatment grids, municipal watershed management, and advanced micro-irrigation systems (such as automated drip and sprinkler systems). Industrial plants are restructuring to introduce Zero Liquid Discharge (ZLD) closed-loop purification facilities.

- **Sustainable Green Buildings:**

  The construction sector is historically a primary consumer of mineral resources and raw electricity. Modern green buildings are deliberately engineered from the design phase to employ minimal materials, electricity, and clean water. They optimize structural orientation to exploit natural daylight, install building-integrated photovoltaic cells (BIPVs), introduce eco-friendly insulation, and use locally sourced, recycled structural components.

- **Clean and Renewable Energy Generation:**

  To decouple energy generation from coal and oil, this sector focuses on solar farms, wind parks, geo-thermal systems, and biomass extraction installations. Green jobs in this sector include design engineers, grid integration technicians, and smart-grid infrastructure coordinators.

- **Comprehensive Waste Management:**

  Modern urban centers generate staggering amounts of municipal solid waste, electronic hazards (e-waste), and toxic plastic polymers. Green professionals operate within the 4 Rs structural paradigm: Reduce, Reuse, Recycle, and Refuse. Key initiatives include establishing community composting, harvesting hazardous e-waste metals, and developing bio-gas extraction facilities from organic city waste.

## ECOSYSTEMS AND SUSTAINABLE DEVELOPMENT

An ecosystem is a highly complex, structural and functional unit of the Earth's biosphere where living organisms (the biotic components, including vegetation, animals, fungi, and micro-organisms) continuously interact with each other as well as with their non-living physical environment (the abiotic components, including sunlight, atmospheric air, clean water, soil matrices, and ambient temperature).

Sustainable Development is defined as economic and structural development that meets the pressing needs of the present generation without compromising or degrading the biological capability of future generations to meet their own unique needs. This concept stands firmly on three deeply interconnected, foundational pillars:

- **Economic Growth:** Spurring continuous industrial innovation, generating reliable vocational livelihoods, and ensuring secure capital distribution.
- **Social Equity:** Eradicating systemic poverty, offering equitable access to resources, and securing civil rights and clean public healthcare across all tiers of global society.
- **Environmental Protection:** Conserving baseline natural resources, reducing chemical pollutants, halting rapid deforestation, and preventing global atmospheric warming.

The Critical Necessity of Balance: When a country focuses exclusively on rapid economic growth while disregarding environmental conservation, it experiences severe industrial pollution crises, collapsing health metrics, and rapid resource exhaustion. Conversely, stopping economic development altogether induces extensive social poverty and systemic unemployment. Green skills provide the specialized practical knowledge needed to reconcile these pillars, transforming raw ecological awareness into lucrative, sustainable, and highly efficient commercial enterprise structures.

## THE GREENING OF JOBS AND NATIONAL INITIATIVES

The "Greening of Jobs" is a foundational process where long-established, traditional job profiles are updated, retrained, or modified to systematically integrate sustainable, eco-friendly operational methodologies. Rather than completely eliminating standard jobs or inventing entirely exotic professional fields, this movement focuses on up-skilling the existing global workforce so they perform their conventional tasks with minimum environmental friction.

Practical Examples of Greening Conventional Jobs:

- **Plumbing Professionals:** A standard plumber learns specialized techniques to configure dual-flush water valves, sensor-activated low-flow taps, gray-water filtration loops, and structural rainwater harvesting pipelines.
- **Automotive Technicians:** A conventional mechanical technician learns advanced electrical engineering principles to safely service high-voltage electric vehicle (EV) drivetrains, lithium-ion battery arrays, and regenerative braking dynamics.

- **Architectural Engineers:** A classical structural designer learns to comply with green certification frameworks (such as GRIHA or LEED) to maximize passive cooling, solar energy absorption, and local non-toxic building material usage.
- **Administrative Managers:** An office operations lead orchestrates a transition to fully digital paperless data clouds, enforces smart automated power-down schedules for electronic grids, and manages sustainable supply chains.

Major Institutional Frameworks and Initiatives: Governments and international bodies are rolling out comprehensive structural frameworks to incentivize the systematic expansion of green competencies and workforce pipelines:

- **National Action Plan on Climate Change (NAPCC):** An Indian governmental framework consisting of multiple targeted core missions, including the highly successful National Solar Mission, National Mission for Enhanced Energy Efficiency, and the National Mission for a Green India.
- **Skill India Mission via SCGJ:** The central government has integrated structured vocational green skill curricula across nation-wide Industrial Training Institutes (ITIs) and colleges through the dedicated Skill Council for Green Jobs (SCGJ).
- **International Solar Alliance (ISA):** A massive global alliance co-initiated by India to maximize the deployment of clean solar energy technologies across sun-rich nations, reducing global systemic dependence on dirty fossil fuels.

## WHY GREEN JOBS ARE IMPORTANT?

Green jobs play a critical role in driving sustainable growth. Below is a detailed, bulleted overview of the importance of green jobs explained in clear, easy-to-understand language:

- **Protecting Ecosystems and Biodiversity:** Green jobs work directly toward restoring degraded habitats, managing national parks, and safeguarding weak wetlands. By focusing on environmental care, these roles prevent the rapid extinction of plants and animals, helping to keep our biological food webs healthy and stable.
- **Enhancing Resource Consumption Efficiency:** These roles focus heavily on reducing the baseline consumption of finite natural assets. Green energy planners, water conservationists, and manufacturing auditors build systems that allow society to use less electricity, raw minerals, and fresh water to accomplish the same daily tasks.
- **De-carbonizing the Global Economy:** One of the most vital functions of green jobs is slowing down global warming. By shifting the energy grid away from traditional coal, gas, and oil toward renewable energy sources like wind, solar, and biomass, green jobs dramatically reduce harmful greenhouse gas emissions into our atmosphere.
- **Minimizing Waste and Environmental Pollution:** Green jobs introduce eco-friendly practices that manage industrial waste, toxic plastics, and dangerous electronic components. By implementing the 4 Rs structural framework (Reduce, Reuse, Recycle, Refuse), these roles keep hazardous industrial chemicals out of our soil, freshwater streams, and air networks.

- **Creating Sustainable and Secure Livelihoods:** As modern business systems transition to satisfy stricter environmental regulations, green jobs offer a pathway to steady, long-term careers. These positions ensure that economic security does not come at the expense of public health or the wellbeing of future generations.
- **Promoting Social Equity and Community Wellbeing:** Many green initiatives focus on providing clean drinking water, localized clean power, and eco-friendly housing to underserved communities. By spreading sustainable infrastructure evenly, green jobs help eradicate regional poverty and improve health metrics for everyone.

## MULTIPLE CHOICE QUESTIONS 01 MARK EACH

**1. What are green skills?**

A) The ability to operate electronic industrial machinery efficiently.

B) Technical skills, knowledge, values, and attitudes required to build a sustainable society.

C) Agricultural techniques exclusively used for harvesting food grains.

D) Managerial skills meant for corporate public relations.

**2. Which of the following is an active global ecological crisis highlighted in the text?**

A) Loss of corporate equity frameworks.

B) Structural unemployment in software engineering fields.

C) Climate change, global warming, and resource depletion.

D) High baseline costs of digital mass media distribution.

**3. What is the main objective of shifting towards a 'Green Economy' model?**

A) To establish absolute government controls over local financial banks.

B) To maximize industrial speed without setting ecological boundaries.

C) To limit environmental risk while simultaneously fostering social equity.

D) To phase out computer information clouds completely.

**4. A 'Green Job' is any employment opportunity that substantially contributes to:**

A) Preserving, protecting, or restoring environmental quality.

B) Lowering the tax requirements of micro-enterprises.

C) Maximizing traditional chemical-heavy manufacturing processes.

D) Improving paper-based document storage in government buildings.

**5. Which of the following is NOT listed as a core priority of Green Jobs?**

A) De-carbonizing the economy by moving away from fossil fuels.

B) Shielding biodiversity and natural ecosystems.

C) Optimizing industrial infrastructure to consume more fresh water.

D) Minimizing waste accumulation and tracking toxic runoff.

**6. Traditional farming relies on synthetic chemicals. What alternative does Green Agriculture offer?**

A) Increased dependency on artificial nitrogenous inputs.

B) Advanced gene-editing software engineering tools.

C) Organic cultivation, bio-fertilizers (vermicompost), and crop rotation.

D) Clearing remaining natural wetlands to double standard crop acreage.

**7. What industrial benchmark facility helps minimize local factory water waste?**

A) Synthetic chemical filtration tanks.

B) Zero Liquid Discharge (ZLD) closed-loop purification facilities.

C) High-volume open-air wastewater drainage canals.

D) Automatic structural groundwater extraction drills.

**8. Green buildings are systematically engineered to optimize which structural factor?**

A) Utilizing artificial heating loops exclusively.

B) Maximizing floor space using heavy petroleum insulation.

C) Exploiting natural daylight, solar water panels, and recycled materials.

D) Reducing roof coverage to prevent natural ventilation setups.

**9. Which structural concept outlines waste minimization in modern cities?**

A) The 4 R's structural framework (Reduce, Reuse, Recycle, Refuse).

B) The 3 pillars of corporate financial management.

C) The Skill India Mission mechanical infrastructure guidelines.

D) The environmental preservation protocol of the ISA.

**10. What are the biotic factors of an ecosystem as described in the material?**

A) Sunlight, atmospheric gases, fresh water, and topsoil.

B) Living elements including vegetation, animals, fungi, and microbes.

C) Renewable electricity grids and green construction elements.

D) Industrial manufacturing complexes and chemical pipelines.

**11. What is the fundamental definition of Sustainable Development?**

A) Expanding industrial wealth without tracking raw resource consumption.

B) Meeting present generation needs without compromising future generations' needs.

C) Halting economic development completely to prioritize wildlife preservation.

D) Transitioning administrative files to local servers rather than cloud networks.

**12. What are the three interconnected pillars that Sustainable Development stands on?**

A) Technology, Mass Media, and Regional Governance.

B) Trade Infrastructure, Chemical Agriculture, and Urban Housing.

C) Economic Growth, Social Equity, and Environmental Protection.

D) Electrical Grids, Automotive Manufacturing, and Public Libraries.

**13. What does the concept 'Greening of Jobs' mean?**

A) Inventing entirely exotic professional fields while ending traditional fields.

B) Eliminating manual farming completely using automation.

C) Up skilling the existing workforce to perform conventional tasks with minimum eco-friction.

D) Painting corporate buildings green to meet aesthetic environmental criteria.

**14. Which Indian governmental framework includes the National Solar Mission?**

A) National Action Plan on Climate Change (NAPCC).

B) Skill Council for Green Jobs (SCGJ).

C) International Solar Alliance (ISA).

D) Ministry of Mass Urban Transportation Development.

**15. The Skill Council for Green Jobs (SCGJ) operates under which central national framework?**

A) International Solar Alliance Initiative.

B) Skill India Mission.

C) National Wildlife Sanctuary Conservation Framework.

D) Zero Liquid Discharge Industrial Protocol.

## ANSWER KEY

1. B) Technical skills, knowledge, values, and attitudes required to build a sustainable society. (Green skills build resource efficiency).

2. C) Climate change, global warming, and resource depletion. (These are the active crises highlighted in the textbook).

3. C) To limit environmental risk while simultaneously fostering social equity. (This is the definition of the green economy transition).

4. A) Preserving, protecting, or restoring environmental quality. (Core purpose of green jobs across all fields).

5. C) Optimizing industrial infrastructure to consume more fresh water. (Incorrect because green jobs want to reduce, not increase, water consumption).

6. C) Organic cultivation, bio-fertilizers (vermicompost), and crop rotation. (These replace synthetic chemical hazards).

7. B) Zero Liquid Discharge (ZLD) closed-loop purification facilities. (ZLD is explicitly noted as a method for water recycling).

8. C) Exploiting natural daylight, solar water panels, and recycled materials. (These minimize electricity and resource drains).

9. A) The 4 R's structural framework (Reduce, Reuse, Recycle, Refuse). (This is the primary methodology for solid and liquid waste tracking).

10. B) Living elements including vegetation, animals, fungi, and microbes. (Biotic always means living components).

11. B) Meeting present generation needs without compromising future generations' needs. (Classic global definition of sustainable development).

12. C) Economic Growth, Social Equity, and Environmental Protection. (These are the three foundational pillars requiring precise balance).

13. C) Up skilling the existing workforce to perform conventional tasks with minimum eco-friction. (Ensures classic roles like plumbers or mechanics transform cleanly).

14. A) National Action Plan on Climate Change (NAPCC). (NAPCC hosts the national solar and green missions).

15. B) Skill India Mission. (SCGJ carries out specialized green skills vocational training under Skill India at ITIs).

## SHORT ANSWER TYPE QUESTIONS 02 MARK EACH

Q1. Define 'Green Skills'.

Q2. Mention any two active global ecological crises.

Q3. What is meant by a 'Green Economy'?

Q4. Give the core definition of a 'Green Job'.

Q5. List any two core operational priorities of Green Jobs.

Q6. How does Green Agriculture protect groundwater systems compared to traditional farming?

Q7. Explain how green jobs help in 'De-carbonizing the Economy'.

Q8. What are the 4 R's used in comprehensive waste management green jobs?

Q9. State the fundamental principle of 'Sustainable Development'.

Q10. What is meant by the 'Greening of Jobs'?

## ANSWER KEY

**Q1. Define 'Green Skills'.**

Answer: Green Skills are defined as the technical skills, collective knowledge, moral values, and proactive attitudes required by the workforce to develop, manage, and maintain a sustainable, resource-efficient, and eco-friendly society.

**Q2. Mention any two active global ecological crises.**

Answer: The two major global ecological crises highlighted in the text are:
1. Climate change and global warming.
2. Depletion of natural resources and severe environmental pollution.

**Q3. What is meant by a 'Green Economy'?**

Answer: A Green Economy is an economic model that aims to limit environmental risks and ecological scarcities while simultaneously fostering social equity, wealth generation, and sustainable community wellbeing.

**Q4. Give the core definition of a 'Green Job'.**

Answer: A Green Job is any position or employment opportunity across agriculture, manufacturing, services, or administration that contributes substantially to preserving, protecting, or restoring environmental health and ecological stability.

**Q5. List any two core operational priorities of Green Jobs.**

Answer: Two core operational priorities are:
1. Protecting natural ecosystems and biological diversity.

2. De-carbonizing the economy by moving away from traditional fossil fuels toward renewable energy sources.

**Q6. How does Green Agriculture protect groundwater systems compared to traditional farming?**

Answer: Traditional farming relies heavily on toxic synthetic pesticides and chemical fertilizers which poison groundwater. Green Agriculture protects it by utilizing organic cultivation, natural crop rotation, and eco-friendly bio-fertilizers like vermicompost.

**Q7. Explain how green jobs help in 'De-carbonizing the Economy'.**

Answer: Green jobs help de-carbonize the economy by shifting traditional power generation methods away from polluting fossil fuels (like coal, oil, and gas) toward clean, renewable sources such as wind, solar, and biomass.

**Q8. What are the 4 R's used in comprehensive waste management green jobs?**

Answer: The 4 R's structural framework stands for:
1. Reduce (decreasing baseline waste production)
2. Reuse (utilizing items multiple times)
3. Recycle (reprocessing waste into new objects)
4. Refuse (avoiding non-eco-friendly materials)

**Q9. State the fundamental principle of 'Sustainable Development'.**

Answer: The fundamental principle is to achieve economic and structural growth that meets the pressing needs of the present generation without compromising or degrading the biological capability of future generations to meet their own unique needs.

**Q10. What is meant by the 'Greening of Jobs'?**

Answer: Greening of Jobs is the process of modifying, updating, or up skilling long-established, traditional job roles (such as plumbers, mechanics, or architects) so that they systematically integrate sustainable, eco-friendly operational methodologies.

# GREEN SKILLS – CLASS XII
# QUESTION PAPER

**Total Marks: 30**

**General Instructions:**

- **1. All questions are compulsory.**
- **2. Section A contains 14 MCQs of 1 mark each.**
- **3. Section B contains 8 short answer questions of 2 marks each.**

## SECTION A

## MULTIPLE CHOICE QUESTIONS (14 × 1 = 14 Marks)

**1. What core components make up 'Green Skills' as detailed in the curriculum?**

A) Financial management and accounting strategies
B) Technical skills, knowledge, values, and attitudes for sustainability
C) Software coding languages and cloud architecture operations
D) Structural engineering for high-speed mechanical manufacturing

**2. Which economic transition framework helps reduce environmental risks while achieving social equity?**

A) Free Market Expansion
B) Digital Automation Infrastructure
C) Green Economy Model
D) Public Sector Monopolization

**3. A 'Green Job' is best defined as employment that focuses significantly on:**

A) Maximizing corporate industrial output speeds
B) Preserving, protecting, or restoring environmental health
C) Minimizing technical infrastructure maintenance labor costs
D) Converting administrative files entirely to manual formats

**4. Which of the following is NOT an direct core objective of establishing Green Jobs?**

A) Shielding local ecosystems and biological diversity
B) Optimizing workflows to consume more raw mineral reserves
C) De-carbonizing the national power grids
D) Mitigating waste accumulation and atmospheric emissions

**5. What eco-friendly alternative does green farming provide to counter synthetic agricultural chemical damage?**

A) Hydroponic mineral fluid injection grids

B) Expanded clear-cutting of local rainforest zones

C) Organic cultivation, bio-fertilizers, and crop rotation matrices

D) Genetically altered high-yield laboratory seed formulas

**6. Which water management facility prevents waste by recycling all industrial wastewater within a factory?**

A) Underground artesian extraction drills

B) Open-air chemical settlement basins

C) Zero Liquid Discharge (ZLD) closed-loop purification facilities

D) High-volume pressure drainage pipeline grids

**7. Green buildings incorporate smart designs primarily to optimize:**

A) Floor-to-ceiling space dimensions using concrete setups

B) Natural daylight, solar panels, and non-toxic insulation

C) Heavy petroleum-based climate sealers

D) External advertising space frameworks

**8. Solid and hazardous electronic wastes are best restricted by using which paradigm?**

A) The 4 R's structural framework (Reduce, Reuse, Recycle, Refuse)

B) Total manufacturing isolation protocols

C) High-temperature open-air municipal combustion grids

D) Standard sub-surface sanitary landfill compression systems

**9. What interaction directly forms the fundamental structure of an ecosystem?**

A) Financial markets and municipal labor supplies

B) Biotic components (living elements) interacting with Abiotic components (non-living elements)

C) Renewable solar farms interacting with standard industrial machinery

D) Central government bodies interacting with international green agencies

**10. Development that meets the requirements of the present without robbing future generations of theirs is called:**

A) Linear Economic Growth

B) Technological Optimization

C) Sustainable Development

D) Decentralized Resource Governance

**11. What are the three foundational pillars requiring careful balance under sustainable development?**

A) Automation, Labor Dynamics, and Capital Inflow

B) Economic Growth, Social Equity, and Environmental Protection

C) Public Libraries, Automotive Logistics, and Tax Restructuring

D) Global Trade, Chemical Farming, and Dense Urban Housing

**12. Retraining a traditional plumber to master rainwater harvesting and gray-water loop installation is an example of:**

A) Job Redundancy Deletion
B) Mechanical Career Elimination
C) The Greening of Jobs
D) Industrial Outsource Management

**13. The National Solar Mission and Green India Mission are critical components of which Indian framework?**

A) Skill Council for Green Jobs Training Protocol
B) National Action Plan on Climate Change (NAPCC)
C) Ministry of Renewable Transport Development Directive
D) International Solar Alliance Operations Policy

**14. Which national framework directly oversees green skill training across Industrial Training Institutes (ITIs)?**

A) International Green Grid Alliance
B) Skill India Mission via the Skill Council for Green Jobs (SCGJ)
C) Indian Zero Liquid Discharge Council
D) National Ecosystem Preservation Authority

## SECTION B

## VERY SHORT ANSWER TYPE QUESTIONS (8 × 2 = 16 Marks)

Directions: Answer each of the following questions in approximately 20-30 words. Ample writing space is provided below.

15. Name two active global environmental threats that necessitate the adoption of green skills.

16. Differentiate between biotic and abiotic factors of an ecosystem, providing one example of each.

17. State the main environmental objective of shifting from internal combustion engine (ICE) vehicles to Electric Vehicles (EVs).

18. List any two sectors of the Indian economy that are actively generating green jobs.

19. What specific environmental damage is caused by traditional agriculture that green agriculture avoids?

20. Explain the core philosophy behind the '4 Rs' waste management framework.

21. Why is it dangerous to pursue economic growth without balancing environmental protection?

22. Briefly explain the mandate of the International Solar Alliance (ISA) initiated by India.

# ANSWER KEY

## Part I: Section A (MCQ) Answers

1. B) Technical skills, knowledge, values, and attitudes for sustainability
2. C) Green Economy Model
3. B) Preserving, protecting, or restoring environmental health
4. B) Optimizing workflows to consume more raw mineral reserves
5. C) Organic cultivation, bio-fertilizers, and crop rotation matrices
6. C) Zero Liquid Discharge (ZLD) closed-loop purification facilities
7. B) Natural daylight, solar panels, and non-toxic insulation
8. A) The 4 R's structural framework (Reduce, Reuse, Recycle, Refuse)
9. B) Biotic components (living elements) interacting with Abiotic components (non-living elements)
10. C) Sustainable Development
11. B) Economic Growth, Social Equity, and Environmental Protection
12. C) The Greening of Jobs
13. B) National Action Plan on Climate Change (NAPCC)
14. B) Skill India Mission via the Skill Council for Green Jobs (SCGJ)

## Part II: Section B (Short Answer) Model Solutions

**15. Name two active global environmental threats that necessitate the adoption of green skills.**

Model Answer: Climate change/global warming and the rapid depletion of natural finite resources combined with severe environmental pollution. (1 mark for each threat, max 2 marks)

**16. Differentiate between biotic and abiotic factors of an ecosystem, providing one example of each.**

Model Answer: Biotic factors are the living elements of an ecosystem (e.g., plants, animals, microbes), whereas abiotic factors are the non-living physical elements (e.g., sunlight, water, soil). (1 mark for correct differentiation, 1 mark for valid examples)

**17. State the main environmental objective of shifting from internal combustion engine (ICE) vehicles to Electric Vehicles (EVs).**

Model Answer: The main objective is to reduce urban air pollution and de-carbonize the transportation sector by eliminating greenhouse gas tailpipe emissions produced by burning fossil fuels. (2 marks)

**18. List any two sectors of the Indian economy that are actively generating green jobs.**

Model Answer: 1. Renewable Energy Generation (Solar/Wind power farms). 2. Sustainable/Organic Waste Management. (Other valid options include Green Construction and Eco-friendly Agriculture). (1 mark for each sector, max 2 marks)

**19. What specific environmental damage is caused by traditional agriculture that green agriculture avoids?**

Model Answer: Traditional agriculture relies on heavy chemical inputs that cause continuous topsoil degradation, eliminate beneficial soil microorganisms, and contaminate local groundwater reserves. (2 marks)

**20. Explain the core philosophy behind the '4 Rs' waste management framework.**

Model Answer: The framework emphasizes circular resource management through four sequential actions: Reduce waste generation, Reuse items, Recycle raw scrap materials, and Refuse non-biodegradable items. (2 marks)

**21. Why is it dangerous to pursue economic growth without balancing environmental protection?**

Model Answer: Over-prioritizing economic growth leads to severe environmental pollution, collapsing healthcare metrics, resource exhaustion, and irreversible climate shifts that threaten future financial survival. (2 marks)

**22. Briefly explain the mandate of the International Solar Alliance (ISA) initiated by India.**

Model Answer: The ISA is a global collaborative alliance meant to maximize solar energy infrastructure deployment across sun-rich nations, reducing structural systemic dependence on polluting fossil fuels. (2 marks)

# PART- B – EMPLOYABILITY SKILLS

## UNIT- 1: Subject Specific Skills





# PHYSICAL EDUCATION & SPORTS



Physical Education and Sports are important parts of education and healthy living. They help in improving physical fitness, mental health, emotional balance and social development. Participation in sports develops discipline, confidence, teamwork and leadership qualities.

The sports sector is growing rapidly in India and around the world. It provides many career opportunities in teaching, coaching, fitness, sports management and sports sciences. Sports not only improve health but also help in personality development and career building.

## 1. JOB PROFILE AND CAREER OPPORTUNITIES OF A PHYSICAL EDUCATION ASSISTANT

A Physical Education Assistant helps in conducting physical activities, sports events, fitness programs and training sessions. This field provides many employment opportunities in schools, colleges, sports academies, gyms and fitness centres.

### 1 TEACHING PHYSICAL EDUCATION



- Teach games, yoga, exercises and sports in schools/colleges
- Conduct activities & competitions
- Develop fitness, discipline & skills
- Motivate students towards fitness

Skills: Communication, leadership, knowledge of sports, motivation, planning & organization

### 2 COACHING



- Train athletes and players
- Improve skills and fitness
- Plan strategies & prepare teams
- Improve performance

A good coach builds confidence and motivates players.

### 3 SPORTS MANAGEMENT



- Organize sports events & tournaments
- Manage planning, coordination and administration
- Handle teams, marketing, sponsorships and promotions

Important due to growth of sports industries and leagues.

### 4 FITNESS SECTOR



- Work in gyms, health clubs, yoga centres, wellness programs
- Guide people for healthy lifestyle

Career Opportunities:
Gym trainer, Personal trainer, Fitness instructor, Yoga trainer, Wellness coach

### 5 EQUIPMENT MANAGERS



- Maintain and check equipment
- Arrange sports materials
- Check safety standards
- Manage inventory

Proper management ensures safety in sports.

### 6 SPORTS JOURNALISM




- Provide information about sports events & players
- Work in newspapers, TV and digital media

Work Areas: Reporting, writing, commentating, media coverage

Promotes sports awareness among people.

### 7 PHOTOGRAPHY IN SPORTS



- Capture important moments during sports events
- Used in newspapers and media
- Promotes sports activities

Requires quick observation and timing skills.

### 8 SPORTS MEDICINE



- Prevent, treat and rehabilitate sports injuries
- Help athletes recover and maintain fitness

Importance: Injury treatment, rehabilitation, fitness assessment, injury prevention

### 9 SPORTS PSYCHOLOGISTS



- Help athletes improve mental strength and emotional control

Role: Reducing stress and anxiety, improving concentration, building confidence, emotional control

### 10 SPORTS NUTRITIONISTS



- Prepare balanced diet plans for athletes
- According to fitness and performance needs

Importance: Improves energy level, helps recovery, maintains fitness, improves performance

## 2. DIFFERENCE BETWEEN PHYSICAL ACTIVITY, GAMES, SPORTS AND RECREATION

| TERM | PHYSICAL ACTIVITY | GAMES | SPORTS | RECREATION |
|---|---|---|---|---|
| MEANING | Any movement of the body that requires energy. | Activities played mainly for enjoyment, entertainment and relaxation. May or may not have fixed rules. | Organized competitive activities played according to fixed rules and regulations. | Activities done during free time for relaxation and enjoyment. |
| EXAMPLES | Walking, Running, Cycling, Exercise | Hide and seek, Puzzle games, Indoor games | Football, Cricket, Kho-Kho, Basketball | Dancing, Yoga, Hiking, Swimming |
| FEATURES / BENEFITS | ✓ Improves fitness<br>✓ Keeps body healthy<br>✓ Prevents diseases<br>✓ Maintains body weight<br>✓ Necessary for a healthy lifestyle | ✓ Improve enjoyment<br>✓ Social interaction<br>✓ Mental freshness | ✓ Competition<br>✓ Rules and regulations<br>✓ Skill and training<br>✓ Team spirit<br>✓ Improve fitness, develop discipline and leadership qualities | ✓ Refreshes the mind<br>✓ Reduces stress<br>✓ Provides enjoyment<br>✓ Improves mental well-being<br>✓ Helps maintain balance between work and relaxation |

## 3. LIFE SKILLS DEVELOPED THROUGH SPORTS




## 4. CONDUCTING SPORTS COMPETITIONS




## 5. CONCLUSION




Physical Education and Sports help in:

- ✓ Healthy living
- ✓ Personality development
- ✓ Career building
- ✓ Mental strength
- ✓ Social development

★ Sports prepare individuals for success in life. ★

**BE ACTIVE • STAY FIT • PLAY FAIR • LIVE HEALTHY**

# Short Notes

## Introduction

Physical Education and Sports are important parts of education and healthy living. They help in improving physical fitness, mental health, emotional balance and social development. Participation in sports develops discipline, confidence, teamwork and leadership qualities.

The sports sector is growing rapidly in India and around the world. It provides many career opportunities in teaching, coaching, fitness, sports management and sports sciences. Sports not only improve health but also help in personality development and career building.

## 1. Job Profile and Career Opportunities of a Physical Education Assistant

A Physical Education Assistant helps in conducting physical activities, sports events, fitness programs and training sessions. This field provides many employment opportunities in schools, colleges, sports academies, gyms and fitness centres.

**(i) Teaching Physical Education**

Physical Education teachers teach games, yoga, exercises and sports activities in schools and colleges. They help students improve fitness, discipline and sports skills.

**Main Responsibilities**

- Conducting physical activities
- Teaching sports rules and techniques
- Maintaining discipline during activities
- Organizing sports competitions
- Motivating students towards fitness

**Skills Required**

- Good communication skills
- Leadership qualities
- Knowledge of sports and fitness
- Ability to motivate students
- Planning and organization skills

Physical Education teachers play an important role in developing healthy habits among students.

**(ii) Coaching**

A coach trains athletes and players to improve their sports performance. Coaches guide players regarding skills, fitness and game strategies.

**Duties of a Coach**

- Skill training
- Fitness development
- Team preparation
- Strategy planning
- Performance improvement

A good coach motivates players and builds confidence among team members.

**(iii) Sports Management**

Sports management deals with organizing sports events, tournaments and competitions. Sports managers handle planning, coordination and administration of sports activities.

**Areas Included**

- Event management
- Team management
- Sports marketing
- Sponsorship management
- Sports administration

Sports management has become an important career field due to the growth of sports industries and leagues.

**(iv) Fitness Sector**

The fitness sector includes gyms, health clubs, yoga centers and wellness programs. Fitness professionals help people maintain healthy lifestyles.

**Career Opportunities**

- Gym trainer
- Personal trainer
- Fitness instructor
- Yoga trainer
- Wellness coach
- Fitness trainers guide people regarding exercises, workouts and diet plans.

### (v) Equipment Managers

Equipment managers maintain sports equipment used during training and competitions. They ensure safety and proper arrangement of sports materials.

**Responsibilities**

- Maintaining equipment
- Arranging sports materials
- Checking safety standards
- Managing inventory

Proper management of equipment is important for safe participation in sports.

### (vi) Sports Journalism

Sports journalists provide information about sports events, players and competitions through newspapers, television and digital media.

**Work Areas**

- Sports reporting
- Sports writing
- Commentating
- Media coverage

Sports journalism helps promote sports awareness among people.

### (vii) Photography in Sports

Sports photographers capture important moments during sports competitions and events.

**Importance**

- Records sports memories
- Used in newspapers and media
- Promotes sports activities

Sports photography requires quick observation and timing skills.

### (viii) Sports Medicine

Sports medicine focuses on prevention, treatment and rehabilitation of sports injuries. Sports doctors and physiotherapists help athletes recover and maintain fitness.

**Importance**

- Injury treatment
- Rehabilitation
- Fitness assessment
- Injury prevention

Sports medicine improves athlete safety and performance.

**(ix) Sports Psychologists**

Sports psychologists help athletes improve mental strength and emotional control.

**Role of Sports Psychologists**

- Reducing stress and anxiety
- Improving concentration
- Building confidence
- Emotional control

Mental fitness is very important for success in sports.

**(x) Sports Nutritionists**

Sports nutritionists prepare balanced diet plans according to athletes' fitness and performance needs.

**Importance**

- Improves energy level
- Helps recovery
- Maintains fitness
- Improves sports performance

Proper nutrition is necessary for good health and athletic performance.

**2. Difference between Physical Activity, Games, Sports and Recreation**

Although these terms are related, they are different from each other.

**Physical Activity**

Any movement of the body that requires energy is called physical activity.

**Examples**

- Walking
- Running
- Cycling
- Exercise

**Benefits**

- Improves fitness
- Keeps body healthy
- Prevents diseases
- Maintains body weight

Physical activity is necessary for a healthy lifestyle.

**Games**

Games are activities played mainly for enjoyment, entertainment and relaxation. They may or may not have fixed rules.

**Examples**

- Hide and seek
- Puzzle games
- Indoor games

Games improve enjoyment, social interaction and mental freshness.

**Sports**

Sports are organized competitive activities played according to fixed rules and regulations.

**Examples**

- Football
- Cricket
- Kho-Kho
- Basketball

**Features of Sports**

- Competition
- Rules and regulations
- Skill and training
- Team spirit

Sports improve physical fitness and develop discipline and leadership qualities.

**Recreation**

Recreation refers to activities done during free time for relaxation and enjoyment.

**Examples**

- Dancing
- Yoga
- Hiking
- Swimming

**Importance**

- Refreshes the mind
- Reduces stress
- Provides enjoyment
- Improves mental well-being

Recreation helps maintain balance between work and relaxation.

**Difference among Physical Activity, Games, Sports and Recreation**

| **Basis** | **Physical Activity** | **Games** | **Sports** | **Recreation** |
|---|---|---|---|---|
| Meaning | Body movement | Fun activity | Competitive activity | Leisure activity |
| Rules | Not necessary | Simple rules | Fixed rules | Not compulsory |
| Competition | Less or no competition | Limited competition | High competition | No competition |
| Purpose | Fitness | Enjoyment | Performance | Relaxation |

**3. Importance of Life Skills in Sports**

Sports help develop important life skills that are useful in daily life and future careers.

**(i) Learning to Deal with Failure**

Sports teach players to accept defeat positively and learn from mistakes. Failure helps athletes improve performance and become mentally strong.

Players understand that success and failure are both parts of life.

**(ii) Importance of Working Hard**

Success in sports requires regular practice, dedication and determination. Hard work helps players achieve goals and improve performance.

Sports teach the value of consistency and effort.

**(iii) Teamwork and Cooperation**

Sports teach players how to work together and support teammates for achieving common goals.

**Benefits**

- Better coordination
- Leadership qualities
- Social interaction
- Mutual understanding

Team spirit is important for success in sports and life.

**(iv) Learning Sacrifice**

Players often sacrifice comfort, leisure time and personal interests for training and competitions.

This develops commitment, dedication and responsibility among athletes.

**(v) Discipline**

Sports develop discipline by teaching players to follow rules, schedules and instructions properly.

Discipline helps individuals become responsible and successful in life.

**(vi) Time Management**

Athletes learn to balance studies, training and personal life effectively.

**Importance**

- Improves productivity
- Reduces stress
- Helps achieve goals
- Creates balanced lifestyle

Time management is an important skill developed through sports participation.

**Conducting Sports Competitions**

Organizing sports competitions develops leadership, teamwork and management skills among students.

**Examples**

- Football competition
- Kho-Kho competition

**Skills Developed**

- Team coordination
- Decision making
- Responsibility
- Event management
- Leadership qualities

Competitions also improve confidence and sportsmanship.

Physical Education and Sports play an important role in maintaining fitness, discipline and overall personality development. The sports sector provides many career opportunities in teaching, coaching, fitness, journalism, sports medicine and management.

Participation in sports develops important life skills such as teamwork, leadership, discipline, confidence and time management. Sports not only improve physical health but also prepare individuals for success in life.

## MCQ Based Questions

## 01 Marks

**Questions**

1. Physical Education mainly helps in the _____ development of an individual.
   a) Physical only
   b) Mental only
   c) Overall personality
   d) Emotional only

2. Which of the following is a career option in the sports sector?
   a) Sports Journalist
   b) Sports Nutritionist
   c) Coach
   d) All of these

3. A coach mainly helps athletes in:
   a) Cooking
   b) Skill development
   c) Banking
   d) Shopping

4. Which field deals with organizing sports events and tournaments?
   a) Sports Medicine
   b) Sports Journalism
   c) Sports Management
   d) Photography

5. Which professional prepares diet plans for athletes?
   a) Sports Psychologist
   b) Coach
   c) Sports Nutritionist
   d) Equipment Manager

6. Sports medicine mainly focuses on:
   a) Entertainment
   b) Injury prevention and treatment
   c) Marketing
   d) Commentating

7. Any movement of the body requiring energy is called:
   a) Recreation
   b) Sports
   c) Physical Activity
   d) Games

8. Which of the following is an example of recreation?
   a) Football
   b) Yoga
   c) Cricket tournament
   d) Boxing competition

9. Sports are generally played according to:
   a) Personal choice
   b) Fixed rules and regulations
   c) No rules
   d) Random methods

10. Which of the following is mainly played for enjoyment?
    a) Games
    b) Sports medicine
    c) Coaching
    d) Fitness testing

11. Sports teach players how to:
    a) Waste time
    b) Avoid teamwork
    c) Become disciplined
    d) Ignore rules

12. Which life skill is developed by balancing studies and sports?
    a) Communication
    b) Time management
    c) Marketing
    d) Photography

13. Sports psychologists mainly help athletes in improving:
    a) Height
    b) Mental strength
    c) Weight lifting equipment
    d) Diet preparation

14. Equipment managers are responsible for:
    a) Organizing media interviews
    b) Maintaining sports equipment
    c) Coaching players
    d) Writing sports news

15. Which of the following sports is mentioned in the practical activity of the syllabus?
    a) Tennis
    b) Basketball
    c) Football
    d) Hockey

**Answers**

1. c) Overall personality
2. d) All of these
3. b) Skill development
4. c) Sports Management
5. c) Sports Nutritionist
6. b) Injury prevention and treatment
7. c) Physical Activity
8. b) Yoga
9. b) Fixed rules and regulations
10. a) Games
11. c) Become disciplined

12. b) Time management
13. b) Mental strength
14. b) Maintaining sports equipment
15. c) Football

## Shorts Answers Based Questions

## 02 Marks

## 20-30 Words

**Questions**

1. What is Physical Education?
2. What are the main duties of a coach?
3. Define Sports Management.
4. Differentiate between games and sports.
5. What is the role of a Sports Nutritionist?
6. Why is discipline important in sports?
7. Explain the importance of time management in sports.

**Answers**

**1. What is Physical Education?**

Physical Education is a process of education through physical activities, games, sports and exercise. It helps in improving physical fitness, mental health, discipline and overall personality development.

**2. What are the main duties of a coach?**

A coach trains athletes to improve their skills, fitness and performance. Coaches prepare training schedules, teach techniques, motivate players and help teams perform better during competitions.

**3. Define Sports Management.**

Sports Management is the process of organizing sports events, tournaments and activities. It includes planning, coordination, administration and management of sports programs and competitions.

**4. Differentiate between games and sports.**

Games are mainly played for enjoyment and entertainment, while sports are organized competitive activities played according to fixed rules and regulations. Sports require training and skill development.

**5. What is the role of a Sports Nutritionist?**

A Sports Nutritionist prepares balanced diet plans for athletes according to their fitness and performance needs. Proper nutrition improves energy, recovery and overall sports performance.

**6. Why is discipline important in sports?**

Discipline helps players follow rules, schedules and instructions properly. It improves behavior, responsibility, teamwork and performance, which are necessary for success in sports and life.

**7. Explain the importance of time management in sports.**

Time management helps athletes balance studies, sports practice and personal life effectively. It improves productivity, reduces stress and helps players achieve their goals successfully.

## Descriptive Answers Based Questions

## 04 Marks

## 50-80 Words

**Questions**

1. Explain the role of Physical Education in personality development.
2. Describe the career opportunities available in the sports sector.
3. Differentiate between physical activity, games, sports and recreation.
4. Explain the importance of Sports Management.
5. Describe the role of Sports Psychologists and Sports Nutritionists.
6. Explain the importance of life skills in sports.
7. Describe the importance of teamwork and discipline in sports.

**Answers**

**1. Explain the role of Physical Education in personality development.**

Physical Education helps in the overall development of personality. It improves physical fitness, mental health and emotional balance. Participation in sports develops confidence, discipline, teamwork and leadership qualities. It also helps students maintain healthy lifestyle habits and positive behaviour.

**2. Describe the career opportunities available in the sports sector.**

The sports sector provides many career opportunities such as Physical Education teacher, coach, sports manager, fitness trainer, sports journalist, sports psychologist and nutritionist. Growth of sports industries, fitness centres and tournaments has increased employment opportunities in this field.

**3. Differentiate between physical activity, games, sports and recreation.**

Physical activity includes body movements requiring energy, such as walking and running. Games are played mainly for enjoyment. Sports are organized competitive activities with fixed rules, while recreation includes leisure activities done for relaxation and mental refreshment.

**4. Explain the importance of Sports Management.**

Sports Management helps in organizing sports events, tournaments and competitions effectively. It includes planning, coordination and administration of sports activities. Proper sports management ensures smooth conduct of events and promotes sports participation and development.

**5. Describe the role of Sports Psychologists and Sports Nutritionists.**

Sports Psychologists help athletes improve concentration, confidence and emotional control. They also help reduce stress and anxiety. Sports Nutritionists prepare balanced diet plans that improve energy, recovery, fitness and overall sports performance of athletes.

**6. Explain the importance of life skills in sports.**

Sports develop important life skills such as teamwork, discipline, leadership, hard work and time management. Players learn how to deal with failure positively and work towards success. These skills help individuals in both sports and daily life.

**7. Describe the importance of teamwork and discipline in sports.**

Teamwork helps players cooperate and work together to achieve common goals. Discipline teaches players to follow rules, schedules and instructions properly. Both teamwork and discipline are important for success in sports and personality development.

## SAMPLE QUESTION PAPER

**Class:** XII

**Section – A**

**MCQs (1 Mark Each)**

**(1 × 12 = 12 Marks)**

1. Physical Education helps in the _____ development of an individual.
   a) Physical only
   b) Mental only
   c) Overall personality
   d) Emotional only

2. Which of the following is a career opportunity in the sports sector?
   a) Coach
   b) Sports Journalist
   c) Fitness Trainer
   d) All of these

3. A coach mainly helps athletes in:
   a) Skill development
   b) Banking
   c) Shopping
   d) Cooking

4. Sports Management deals with:
   a) Cooking
   b) Organizing sports events
   c) Farming
   d) Music

5. Which professional prepares diet plans for athletes?
   a) Sports Psychologist
   b) Sports Nutritionist
   c) Equipment Manager
   d) Photographer

6. Which of the following is an example of physical activity?
   a) Walking
   b) Sleeping
   c) Watching TV
   d) Reading books

7. Sports are generally played according to:
   a) Personal choice
   b) Fixed rules

c) No rules
d) Random methods

8. Recreation activities are mainly done for:
   a) Punishment
   b) Relaxation and enjoyment
   c) Competition
   d) Examination

9. Which life skill is developed through balancing studies and sports?
   a) Time management
   b) Marketing
   c) Photography
   d) Banking

10. Sports psychologists mainly help athletes improve:
    a) Mental strength
    b) Height
    c) Weight
    d) Equipment handling

11. Equipment managers are responsible for:
    a) Writing sports news
    b) Maintaining sports equipment
    c) Teaching yoga
    d) Conducting examinations

12. Which sport is mentioned in the practical activity of the syllabus?
    a) Tennis
    b) Basketball
    c) Football
    d) Volleyball

## Section – B

**Short Answer Questions (2 Marks Each)**

**(2 × 5 = 10 Marks)**

13. Define Physical Education.

14. What are the duties of an Equipment Manager?

15. Differentiate between games and sports.

16. Write any four benefits of recreation.

17. Explain the importance of discipline in sports.

## Section – C

**Descriptive Answer Questions (4 Marks Each)**

**(4 × 2 = 8 Marks)**

18. Describe the career opportunities available in the sports sector.
19. Explain the importance of life skills in sports.

## ANSWERS

**Section – A Answers**

1. c) Overall personality
2. d) All of these
3. a) Skill development
4. b) Organizing sports events
5. b) Sports Nutritionist
6. a) Walking
7. b) Fixed rules
8. b) Relaxation and enjoyment
9. a) Time management
10. a) Mental strength
11. b) Maintaining sports equipment
12. c) Football

## Section – B Answers

**13. Define Physical Education.**

Physical Education is a process of education through physical activities, sports, games and exercise that helps in overall personality development and fitness improvement.

**14. What are the duties of an Equipment Manager?**

Equipment managers maintain sports equipment, arrange sports materials, check safety standards and ensure proper availability of equipment during sports activities and competitions.

**15. Differentiate between games and sports.**

Games are mainly played for enjoyment and entertainment, while sports are organized competitive activities played according to fixed rules and regulations.

**16. Write any four benefits of recreation.**

- Reduces stress
- Refreshes the mind
- Provides enjoyment
- Improves mental well-being

**17. Explain the importance of discipline in sports.**

Discipline helps players follow rules, schedules and instructions properly. It improves responsibility, teamwork, behaviour and performance in sports and daily life.

**Section – C Answers**

**18. Describe the career opportunities available in the sports sector.**

The sports sector provides career opportunities such as Physical Education teacher, coach, sports manager, fitness trainer, sports journalist, sports psychologist and nutritionist. Growth of sports industries and fitness awareness has increased employment opportunities in this field.

**19. Explain the importance of life skills in sports.**

Sports develop important life skills such as teamwork, discipline, leadership, hard work and time management. Players also learn to deal with failure positively and work towards success. These skills help individuals in sports as well as daily life.

# UNIT – 2 ASSESSMENT OF STUDENTS

## ASSESSMENT OF STUDENTS – GIST

Assessment is the process of collecting information about students' learning, skills, fitness and behaviour to understand their progress and to help them improve.

### 1. MEANING

Assessment is the systematic way of measuring and judging the performance, learning, skills, fitness and attitude of students.



### 2. PURPOSE / IMPORTANCE

- Helps to know the strengths and weaknesses of students.
- Guides teachers to improve teaching methods.
- Motivates students to perform better.
- Helps in personal development and goal setting.
- Ensures fair and balanced evaluation.



### 3. TYPES OF EVALUATION

- Diagnostic Evaluation – done at the beginning to know the initial level.
- Formative Evaluation – done during the learning process to improve performance.
- Summative Evaluation – done at the end to judge overall achievement.



DIAGNOSTIC | FORMATIVE | SUMMATIVE

### 4. AREAS OF ASSESSMENT

- Skill Related Fitness – strength, endurance, speed, flexibility, etc.
- Motor Skills – fundamental and game skills.
- Knowledge – rules, techniques, safety, tactics.
- Attitude & Behaviour – sportsmanship, discipline, leadership, cooperation.



### 5. METHODS / TOOLS OF ASSESSMENT

- Observation
- Checklists
- Rating Scales
- Rubrics
- Tests and Measures
- Self Assessment
- Peer Assessment




### 6. PRINCIPLES OF GOOD ASSESSMENT

- Valid – measures what it is intended to measure.
- Reliable – gives consistent results.
- Fair – provides equal opportunity for all.
- Comprehensive – covers all important areas.
- Continuous – done regularly.



### 7. GUIDELINES FOR ASSESSMENT

- Set clear objectives.
- Use appropriate tools and methods.
- Explain criteria to students.
- Record results accurately.
- Give constructive feedback.
- Use results for improvement.



### 8. LEARNING OUTCOMES

After learning this lesson, students will be able to:

- Understand the meaning and importance of assessment.
- Identify different types and methods of assessment.
- Apply assessment tools fairly and effectively.
- Use assessment results to improve their performance.

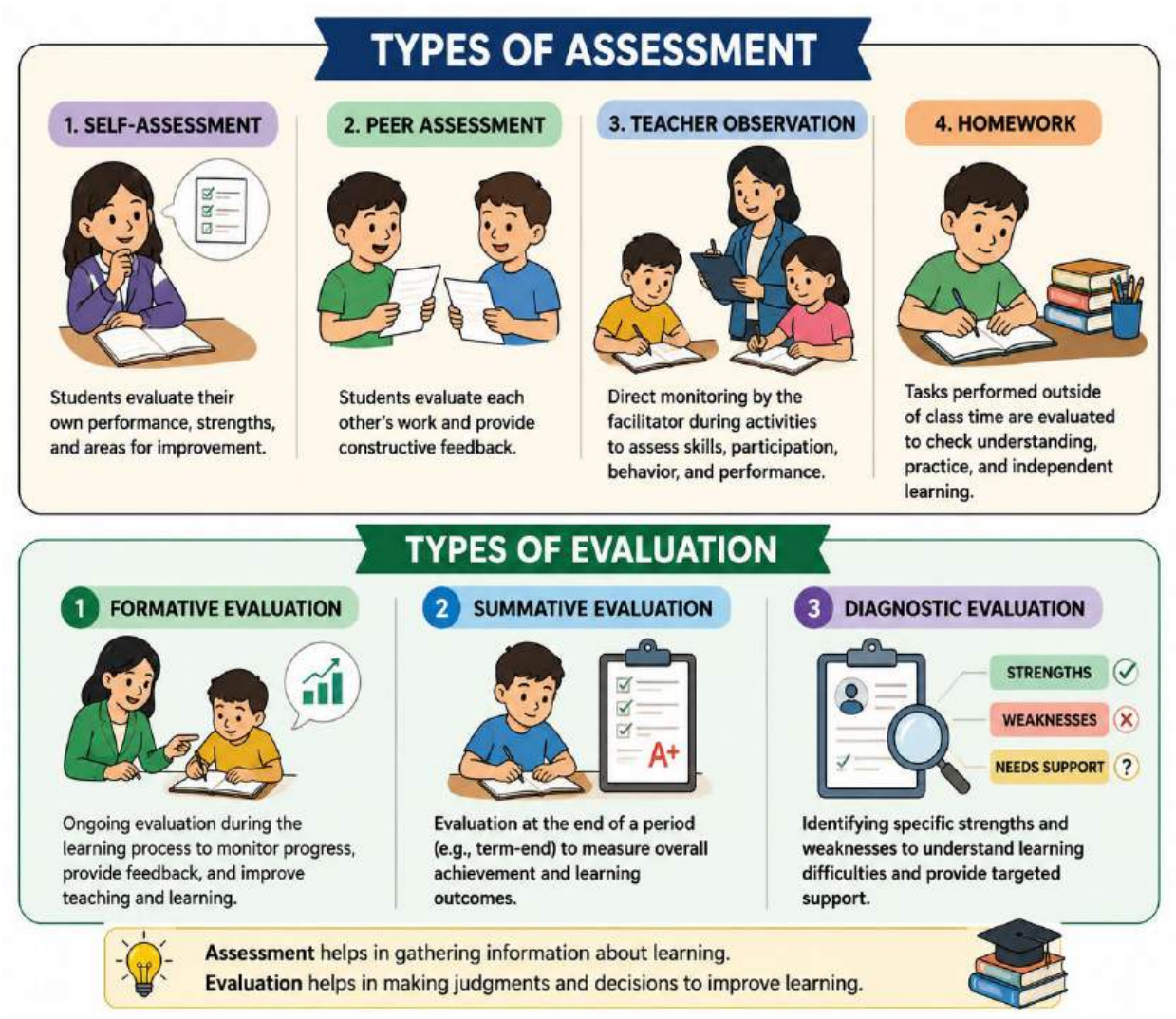


**Assessment of Students** (specifically Unit 2 for Class XII) focuses on the methodologies, tools, and follow-up procedures required to evaluate student progress effectively.

## 1. Understanding Assessment and Evaluation

Assessment is the process of gathering information about a student's performance, while evaluation involves making judgments based on that information.

- **Types of Assessment:**
  - **Self-assessment:** Students evaluate their own performance.
  - **Peer assessment:** Students evaluate each other.
  - **Teacher Observation:** Direct monitoring by the facilitator during activities.
  - **Homework:** Tasks performed outside of class time.




## Types of Evaluation:

- **Formative Evaluation:** Ongoing evaluation during the learning process.
- **Summative Evaluation:** Evaluation at the end of a period (e.g., term-end).
- **Diagnostic Evaluation:** Identifying specific strengths and weaknesses to provide targeted support.

## 2. Factors and Tools for Assessment

Several factors can influence the accuracy and effectiveness of an assessment:

- **Physical factors:** The environment and health of the student.
- **School factors:** Resources and time allocated by the institution.
- **Teacher factors:** The facilitator's skills and objectivity.

## Assessment Tools includes:

- **Checklists:** Simple yes/no or present/absent lists.
- **Rubrics:** Detailed scoring guides used to evaluate quality.
- **Benchmarks:** Standard points of reference used for comparison.

## 3. Qualitative and Quantitative Assessment

Assessments are categorized into two main types based on the nature of the data collected:

- **Qualitative Assessment:** Focuses on the description of quality, such as observing movement patterns or social interaction. The curriculum emphasizes understanding the steps involved in this descriptive process.
- **Quantitative Assessment:** Focuses on measurable data (numbers), such as the number of repetitions, time taken, or distance covered.

## 4. Organizing the Assessment Process

Organizing an evaluation plan requires understanding the **elements of the teaching process** and the **key success factors** that indicate high-quality Physical Education has been delivered. Facilitators must be able to:

- Prepare evaluation plans.
- Identify students' weaknesses and assist in upgrading their competencies.
- Cater to different learning styles and abilities.

## 5. Interaction with Parents

A critical final step in the assessment cycle is communicating results to parents through **Parent-Teacher Meetings (PTMs)**. This process includes:

- **Managing PTMs:** Planning and conducting the interaction professionally.
- **Explaining Performance:** Helping parents understand the evaluation of their child's performance.
- **Supporting Slow Learners:** Outlining specific steps and strategies to improve the performance of students who are progressing more slowly than their peers.

Assessment of students is the process of measuring and evaluating students' learning, physical fitness, skills, behaviour, and overall performance. It helps teachers understand students' progress and improve teaching methods.

Assessment is an important part of education because it provides feedback to both teachers and students.



## Objectives of Student Assessment

To measure learning outcomes
To evaluate physical and mental development
To identify strengths and weaknesses
To motivate students for improvement
To guide students properly
To improve teaching methods
To monitor progress regularly

## Meaning of Assessment

Assessment is the systematic process of collecting, analysing, and interpreting information about students' performance and learning.
Importance of Assessment

**1. Measures Student Progress**
Helps teachers know how much students have learned.

**2. Improves Teaching**
Teachers can modify teaching methods according to student needs.

**3. Motivates Students**
Students become more interested in improving their performance.



**4. Identifies Learning Difficulties**
Helps identify weak areas requiring extra attention.

**5. Provides Feedback**
Students receive guidance for improvement.

## Types of Assessment

**1. Formative Assessment**
Assessment conducted during the learning process.

**Features**

- Continuous in nature
- Focuses on improvement
- Provides immediate feedback
- Examples
- Class tests
- Assignments
- Practical activities
- Observation

**2. Summative Assessment**
Assessment conducted at the end of a course or term.
**Features**

- Evaluates final achievement
- Used for grading
- Conducted after completion of learning
- Examples
- Final exams
- Annual practical tests
- Semester examinations



**3. Diagnostic Assessment**

- Assessment used to identify learning difficulties and weaknesses.
- Purpose
- Detects specific problems
- Helps provide remedial teaching

**4. Placement Assessment**

- Assessment conducted before instruction begins.
- Purpose
- Determines student skill level
- Helps place students in suitable groups

## Principles of Good Assessment

**1. Validity**
The assessment should measure what it is intended to measure**.**
**2. Reliability**
The results should be consistent every time.
**3. Objectivity**
Assessment should be free from personal bias.
**4. Practicality**
Assessment should be simple and economical.
**5. Simplicity**

Instructions should be clear and easy to understand.



## Areas of Student Assessment

**A. Cognitive Domain**

Assessment of knowledge and understanding.

Examples

- Written exams
- Oral tests
- Quizzes

**B. Psychomotor Domain**

Assessment of physical skills and movements.

Examples

- Sports skills
- Fitness tests
- Practical activities

**C. Affective Domain**

Assessment of attitudes, values, emotions, and behavior.

Examples

- Teamwork
- Discipline
- Sportsmanship
- Tools of Assessment

**1. Written Tests**

Used to assess theoretical knowledge.

**2. Practical Tests**

Used to assess physical performance and skills.

**3. Observation Method**

Teacher observes student behaviour and activities.

**4. Questionnaires**

Collect information about student interests and attitudes.

**5. Interviews**

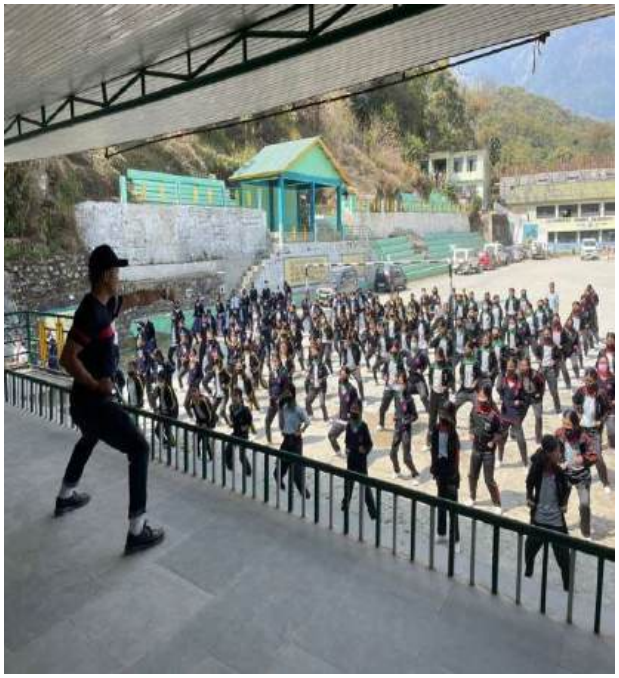
Direct interaction with students for evaluation.

## Characteristics of Good Assessment

- Continuous
- Comprehensive
- Objective
- Fair
- Flexible
- Student-centred

## Continuous and Comprehensive Evaluation (CCE)

CCE is a system of evaluating students continuously throughout the academic year.



### Features

- Covers scholastic and co-scholastic areas
- Focuses on overall development
- Reduces exam pressure

### Advantages of Assessment

- Improves student performance
- Encourages participation
- Builds confidence
- Helps teachers plan lessons
- Tracks overall development

### Limitations of Assessment

- Time-consuming
- Requires trained teachers
- May create stress among students
- Some assessments may be biased

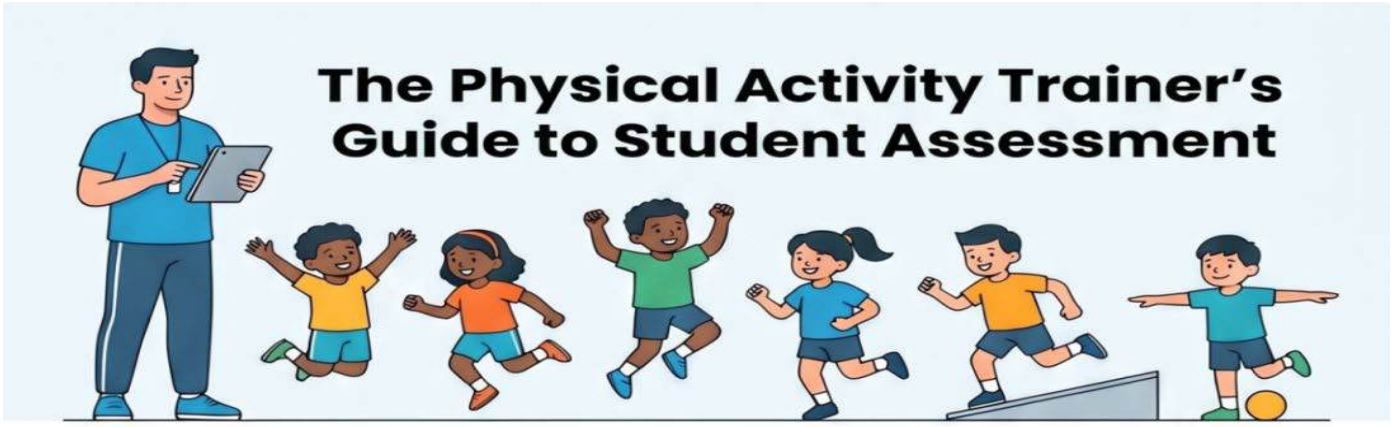
### Important Definitions

**Assessment**
Process of evaluating student learning and performance.

**Evaluation**
Judging the quality or value of performance.

**Feedback**
Information provided to improve performance.

**Observation**
Careful watching and recording of student behavior.




## Assessment Methods and Tools

### Core Assessment Types



Self-Assessment



Peer Assessment



Teacher Observation



Homework

### Essential Assessment Tools




Checklists Rubrics Benchmarks




## Evaluation, Methodology, and Reporting

### Evaluation Framework

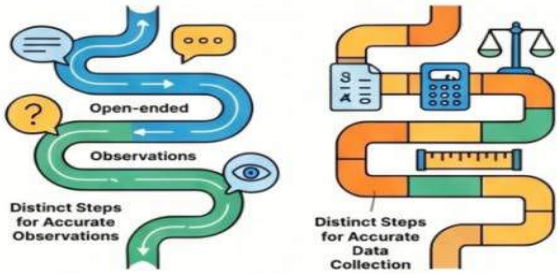



**Diagnostic (Initial)**
Conducted at the start to identify student needs and abilities.

**Formative (Ongoing)**
Ongoing assessment during training to provide immediate feedback.

**Summative (Final)**
Final evaluation to measure total achievement and skill mastery.

### Qualitative vs. Quantitative Methodology




Qualitative Quantitative

### Parental Engagement



**Meetings & Student Reports**
Crucial interaction to explain performance evaluations.



**Improvement Plans**
Strategies for slow learners.

# Competency-Based Questions - MCQs

**1. A trainer is working with a child who is struggling with both social interaction and physical coordination. According to the curriculum, which framework should the trainer use to analyse how these different aspects of the child's well-being influence each other?**

a) The Talent Detection Process
b) The Health Triangle (Physical, Mental, and Social health)
c) The DRABC principle
d) Macro-planning cycle

**2. A physical activity facilitator is designing a training program that spans an entire six-month academic semester leading up to a major competition. Which level of planning is being utilized?**

a) Micro-planning
b) Weekly planning
c) Macro-planning
d) Meso-planning

**3. When a primary years facilitator is selecting specific props and equipment for a group of seven-year-olds, which factor is identified as a primary consideration in the curriculum?**

a) The cost of the equipment
b) The purpose and age-appropriateness of the props
c) The storage capacity of the school's sandooks
d) The colour of the marking cones

**4. To maintain a safe environment, a trainer performs a quick daily check of the play area for hazards like broken glass or loose equipment. This activity is classified as?**

a) Low-frequency inspection
b) High-frequency inspection
c) Summative evaluation
d) Diagnostic evaluation

**5. If a student sustains a minor ankle sprain during a volleyball match, what is the immediate sequence of First Aid instructions the trainer should follow?**

a) CPR (Cardiopulmonary resuscitation)
b) The DRABC principle
c) R.I.C.E. (Rest, Ice, Compression, Elevation)
d) The Health Triangle assessment

**6. During a basketball practice, a student becomes unresponsive and stops breathing. After calling for emergency services, what procedure must the trainer be prepared to demonstrate?**

a) Rehabilitation exercises
b) Qualitative assessment
c) Cardiopulmonary resuscitation (CPR)
d) Meso-planning adjustment

**7. A trainer uses a set of predefined criteria to provide a student with a clear grade on their ability to perform a specific yoga pose. Which assessment tool is being used?**

a) Peer assessment
b) Checklist
c) Rubrics
d) Homework

**8. Which type of evaluation is most appropriate for a trainer to use *during* a lesson to identify if students are struggling with a new skill so that the teaching method can be adjusted immediately?**

a) Summative evaluation b) Diagnostic evaluation
c) Formative evaluation d) Benchmark assessment

**9. A trainer is recording the exact distance each student can jump to create a class average and track physical progress. This is an example of?**

a) Qualitative assessment b) Quantitative assessment
c) Peer-to-peer evaluation d) Self-management skill

**10. "Ongoing evaluation" is listed as a key success factor in the curriculum because it allows the trainer to?**

a) Finalize marks for the year-end report card b) Ensure high-quality physical education is being imparted effectively
c) Reduce the number of hours spent on practical work d) Eliminate the need for Parent-Teacher Meetings

**11. In the event of a student experiencing a sudden asthma attack or heat stroke on the playfield, the trainer's primary role is to act as a?**

a) Sports Journalist b) First Responder using emergency response plans
c) Equipment Manager d) Talent Detection Officer

**12. A student who excels in this course but prefers the administrative and organizational side of the sector might be best suited for which career path?**

a) Sports Photography b) Sports Management or Venue Operation
c) Yoga Instructor in a gym d) Professional Footballer

**13. By teaching children to "deal with failure" and "work as a team member" during a Kho-Kho match, the trainer is helping them develop?**

a) Green skills b) Information and Communication Technology (ICT)skills
c) Life skills d) Entrepreneurial skills

**14. Why is the "inspection of personal items and kits" included as a requirement for maintaining health and hygiene in the play area?**

a) To ensure all students are wearing the same brand of jersey
b) To check for stolen school equipment
c) To identify which students are slow learners
d)To verify that students are following sanitation rules and maintaining personal hygiene

**15. A physical activity trainer uses Ms Excel to track student attendance and fitness test results. This demonstrates a competency in which area?**

a) Green Skills-III b) Maintenance of records using ICT skills
c) Entrepreneurial Skills-III d) Self-management Skills-III

---

**Answer Key**

1. **b** | 2. **d** | 3. **c** | 4. **b** | 5. **c** | 6. **c** | 7. **c** | 8. **c** | 9. **b** | 10. **b** | 11. **b** | 12. **b** | 13. **c** | 14. **b** | 15. **b**

## SHORT QUESTIONS (2 Marks)

1. Define the "Health Triangle" and list its three components.
2. What is the difference between Macro-planning and Micro-planning in physical activity?
3. List four factors that should be considered when selecting props and equipment for primary years children.
4. Distinguish between high-frequency and low-frequency playfield inspections.
5. Explain the "R.I.C.E." principle used in First Aid for sports injuries. Answer:
6. Identify four career paths available to students who complete this vocational course.
7. What is the primary purpose of "Formative Evaluation" in a classroom setting?
8. What does the acronym "DRABC" stand for in emergency management? Answer:
9. Define "Quantitative Assessment" and provide one example of its use. Answer:
10. Why is the "inspection of personal items and kits" a requirement for health and hygiene?

## SHORT ANSWERS

1.The Health Triangle is a framework used to identify and balance the various needs of a child for overall well-being. Its three components are **physical health**, **mental health**, and **social health**.

**2.Macro-planning** involves long-term, high-level planning for physical activity cycles (such as a full year). **Micro-planning** refers to the detailed structuring of individual, short-term activity sessions or daily lesson plans.
3.Key factors include the **purpose** of the activity, **age-appropriateness** of the equipment, the **safety** of the materials, and the specific **physical needs** of the children.

**4.High-frequency inspections** are daily or routine checks for immediate hazards like broken glass or loose debris. **Low-frequency inspections** are more thorough, periodic maintenance checks of the overall condition of sports facilities and equipment.
**5**.R.I.C.E. is an acronym for **Rest, Ice, Compression, and Elevation**. It provides the standard sequence of instructions for managing minor sports injuries such as sprains and strains.

6.Career opportunities include serving as an **Assistant Physical Education Teacher**, a **Sports Coach** in an academy, a member of a **Sports Management team**, or a **Fitness Trainer** in a gym.

7.Formative evaluation is an **ongoing process** used during a lesson to identify if students are struggling with a concept. This allows the trainer to adjust teaching methods immediately to improve learning outcomes.
8.**DRABC** stands for **Danger, Response, Airway, Breathing, and Circulation**. It represents the basic principle and sequence a first responder should follow when dealing with an emergency.

9.Quantitative assessment involves tracking student progress using **measurable, numerical data**. An example is recording the exact time it takes for a student to complete a 50-meter sprint to track fitness improvements.

10.This inspection ensures that students are following **sanitation rules** and maintaining **personal hygiene**, which prevents the spread of germs and ensures a safe, clean environment for all participants.

## FOUR - Mark Questions

1. Explain the different levels of physical activity planning used by a trainer to structure sessions effectively.
2. Describe the "Health Triangle" and explain how its three components contribute to a child's well-being.
3. Outline the process for inspecting a playfield and distinguish between high-frequency and low-frequency inspections.
4. What is the "DRABC" principle of First Aid, and why is it important for a trainer to follow this sequence?
5. Compare and contrast "Qualitative Assessment" and "Quantitative Assessment" with examples of each.
6. Identify four key Life Skills that students develop through sports and explain their importance.
7. Detail the three stages of organizing a sports tournament as described in the curriculum.
8. Explain the differences between Formative, Summative, and Diagnostic evaluations.
9. Discuss the career opportunities available to someone who completes the Physical Activity Trainer course.
10. What are the key success factors for a trainer to impart high-quality physical education to students?

## ANSWERS

1. Effective planning is divided into several cycles to ensure goals are met over time:

- **Macro-planning:** Long-term planning, typically covering an entire year or a major cycle of activity.
- **Meso-planning:** Medium-term planning that breaks the macro-cycle into smaller blocks, such as months or seasons.
- **Micro-planning:** Short-term, detailed planning for individual sessions or a few days.

- **Weekly planning:** A specific structure that outlines the progression of activities throughout a single week.

2. The Health Triangle is a framework used to identify and balance a child's needs. It consists of:

- **Physical Health:** Focusing on the body's ability to function efficiently and without injury.
- **Mental Health:** Addressing the emotional and cognitive needs of the child.
- **Social Health:** Dealing with the child's ability to interact with others and their environment. The trainer uses this triangle to ensure that physical activities promote development in all three areas simultaneously.

3. Inspections are critical for maintaining a safe environment.

- **High-Frequency Inspections:** These are routine, often daily checks for immediate hazards like broken glass, debris, or loose equipment parts.
- **Low-Frequency Inspections:** These are periodic, in-depth maintenance checks that look at the long-term wear and tear of facilities and the structural integrity of equipment. The process also involves keeping a timetable for inspections and strictly following safety measures.

**4.** DRABC is the basic sequence a first responder follows during an emergency to prioritize life-saving actions:

- **D (Danger):** Check for any immediate threats to yourself or the victim.
- **R (Response):** Check if the victim is conscious or responsive.
- **A (Airway):** Ensure the victim's airway is clear.
- **B (Breathing):** Check if the victim is breathing normally.
- **C (Circulation):** Check for signs of circulation or pulse. Following this sequence ensures that the most critical life functions are addressed first in a high-pressure situation.

**5**. These two methods provide different types of data regarding student performance:

- **Qualitative Assessment:** Focuses on the "how" and "why." It involves describing the steps, technique, and meaning behind a performance (e.g., observing the form of a student's yoga pose).
- **Quantitative Assessment:** Focuses on numerical data and measurement. It tracks performance using objective numbers (e.g., recording the distance of a long jump or the time of a 100-meter dash).

**6.**Beyond physical fitness, the curriculum emphasizes the development of character through sports:

- **Dealing with Failure:** Learning to handle loss and bounce back from setbacks.
- **Working as a Team Member:** Understanding cooperation and the importance of group goals.

- **Discipline:** Adhering to rules, schedules, and training regimens.
- **Time Management:** Balancing academic duties with sports and personal activities.

**7.**Organizing a successful competition requires a structured approach in three phases:

- **Pre-tournament Day:** Planning, resource identification, registration, and scheduling of events.
- **Tournament Day:** Execution of the events, ensuring safety protocols are followed, and managing equipment.
- **Post-tournament Day:** Cleaning up the venue, finalizing scores, conducting evaluations, and storing equipment.

**8.**These evaluation types serve different purposes in the teaching process:

- **Formative Evaluation:** An ongoing check performed during the lesson to see if students are understanding the material.
- **Summative Evaluation:** A final assessment at the end of a unit or term to determine the overall achievement level.
- **Diagnostic Evaluation:** Used to identify specific learning gaps or weaknesses so that the trainer can provide targeted support.

**9.**Completion of this vocational course opens several paths in the sports sector:

- **School Sector:** Working as an Assistant to a Physical Education Teacher for children.
- **Sports Coaching:** Serving as an assistant to a coach in sports academies.
- **Management:** Joining a sports management team or venue operation team (e.g., stadium equipment manager).
- **Fitness Sector:** Working as a Yoga Instructor or Fitness Trainer in gyms.

**10.**According to the curriculum, high-quality instruction depends on several factors:

- **Preparation:** Creating clear session plans that have a relevant purpose.
- **Engagement:** Using a mix of methodologies, such as team work and project-based learning.
- **Ongoing Evaluation:** Constantly assessing student progress to identify weaknesses and provide additional support.
- **Resource Management:** Effectively using learning aids, ICT tools (like Ms.Excel), and maintaining proper equipment.

# Practice Question Paper: Assessment of Students

**Subject:** Physical Activity Trainer (845) **Total Marks:** 30
**Class:** XII **Time :** 1 Hour
---
-

## Multiple Choice Questions (1 Mark Each)

1.Which type of assessment involves a student evaluating their own work or performance?
a) Teacher Observation b) Peer Assessment
c) Self-assessment d) Summative Evaluation

2.What is the primary purpose of Diagnostic Evaluation?
a) To give a final grade at the end of the year b) To identify specific learning difficulties of a student
c) To compare students against a benchmark d) To conduct a peer-review session

3.Which assessment tool provides a specific set of criteria or standards used to evaluate a student's performance?
a) Checklist b) Rubrics
c) Benchmark d) Homework

4.Availability of resources and sports facilities in a school is categorized as which type of factor influences assessment?
a) Physical factors b) Teacher factors
c) School factors d) Qualitative factors

5.What is the final step in the process of explaining a performance evaluation to parents?
a) Showing the student's report b) Identifying weaknesses
c) Providing steps to improve the performance of slow learners d) Conducting a role play

6.The four elements that make up the whole process of teaching include "Ongoing evaluation" and which of the following?
a) Competitive sports b) Qualitative Assessment
c) Talent Identification d) Resource Management

7. Which of the following is used to ensure safety during sports activities?
   a) Costume b) Protective equipment
   c) Decoration items d) Music system
8. Which equipment is commonly used in badminton?
   a) Football b) Bat
   c) Shuttlecock d) Helmet

## Short Answer Questions (2 Marks Each)

1. Differentiate between Formative and Summative evaluation.
2. Briefly explain the meaning of **Peer Assessment** in the context of physical activity.
3. List any two Teacher factors that can influence the assessment of students.

4. Define the term Benchmark as an assessment tool.
5. What are the two main types of assessment based on the nature of data (Qualitative and Quantitative)?

## Long Answer Questions (4 Marks Each)

1. Describe the four key success factors that indicate high-quality Physical Education has been successfully imparted to students.
2. Outline the steps for managing a Parent-Teacher Meeting (PTM) and effectively explaining a student's performance report to their parents.
3. Explain the meaning and the specific steps involved in conducting a Qualitative Assessment of students.
4. What is the difference between Assessment and Evaluation?
5. Describe any two important Assessment tools?

---

## Answer Key
## Multiple Choice Questions

1. c) Self-assessment
2. b) To identify specific learning difficulties of a student
3. b) Rubrics
4. c) School factors
5. c) Providing steps to improve the performance of slow learners
6. **b)** Qualitative Assessment (Note: The sources list "Ongoing evaluation" and "Qualitative assessment" as core elements of the teaching and evaluation process).
7. b) Protective equipment
8. c) Shuttlecock

## Short Answer Questions (2 Marks Each)

1. **Formative vs. Summative Evaluation:** Formative evaluation is an ongoing process used during instruction to provide feedback for improvement. In contrast, Summative evaluation occurs at the end of a unit or term to provide a final grade or assessment of what has been learned.
2. **Peer Assessment:** This is a type of assessment where students evaluate the performance or work of their fellow classmates. It helps students learn from one another and develop a better understanding of the assessment criteria.
3. **Teacher Factors:** Two factors related to the teacher that influence assessment include the teacher's own perception/observation skills and the methodologies they choose to record and evaluate student progress.
4. **Benchmark:** A benchmark is an **assessment tool** used as a standard or point of reference against which a student's performance or progress can be measured and compared.
5. **Qualitative and Quantitative Assessment:** Qualitative assessment involves descriptive data (like observing a student's form in yoga), whereas Quantitative assessment involves numerical data (like timing a 100m sprint).

## Long Answer Questions (4 Marks Each)

1. **Four Key Success Factors for High-Quality Physical Education:**
    - **Student Activity Levels:** Ensuring students are physically active throughout the class.
    - **Broad and Balanced Curriculum:** Delivering a curriculum that is relevant and differentiated for all students.
    - **Competitive Readiness:** Successfully preparing and inducting students for competitive sports.
    - **Progress Indicators:** Clear evidence that high-quality physical education has been imparted through regular and ongoing evaluation.
2. **Managing a Parent-Teacher Meeting (PTM):**
    - **Preparation:** Organize the student's performance data and reports beforehand.
    - **Communication:** Interact professionally with parents, focusing on clear, effective oral communication.
    - **Evaluation Explanation:** Walk the parents through the performance evaluation report, explaining strengths and weaknesses.
    - **Action Plan:** Conclude by providing specific, actionable **steps to improve the performance of slow learners**.
3. **Qualitative Assessment Steps:**
    - **Define Meaning:** Understand that qualitative assessment focuses on the "how" and "why" of performance rather than just the "how many".
    - **Observation:** The teacher observes the student during physical activities or play.
    - **Recording:** The teacher uses tools like **Checklists or Rubrics** to note specific behaviors or skills demonstrated.
    - **Feedback/Analysis:** Analyse the descriptive data to provide meaningful feedback for student development.

4. **Difference between Assessment and Evaluation**

| Basis | Assessment | Evaluation |
|---|---|---|
| Meaning | Collection of information about learning and performance | Judging the value or quality of performance |
| Purpose | To improve learning and identify weaknesses | To give grades, marks, or final judgment |
| Nature | Continuous and ongoing process | Final and periodic process |
| Focus | Learning process | Learning outcome/result |
| Method | Observation, tests, assignments, feedback | Marks, grades, rankings |
| Feedback | Provides suggestions for improvement | Provides judgment about achievement |
| Role of Teacher | Guides and supports students | Measures and compares performance |
| Example | Checking daily fitness activities | Giving final Physical Education grades |

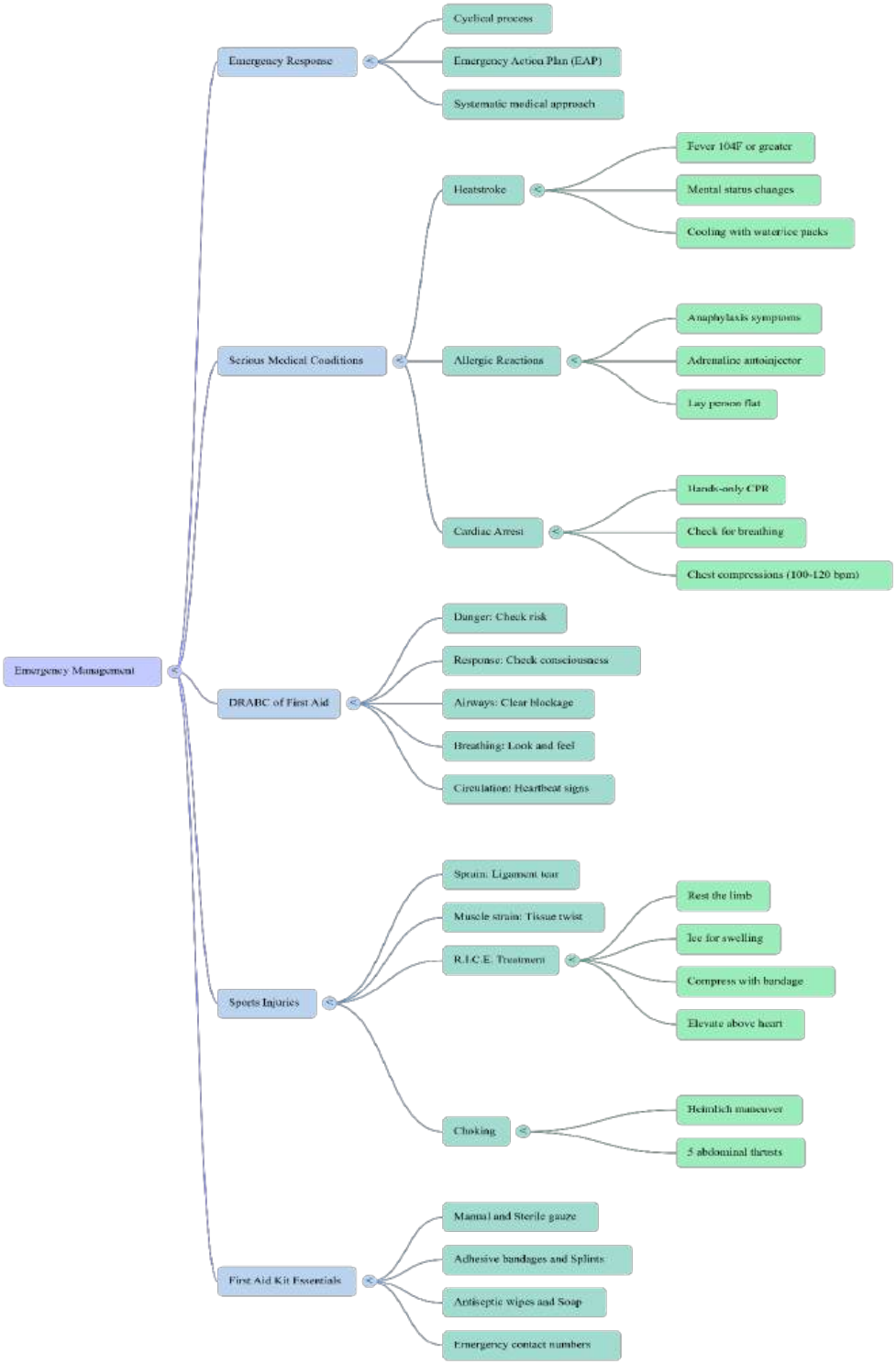
5. Two important assessment tools are **rubrics and checklists**.

A **rubric** is an assessment tool that contains a set of criteria and performance levels used to evaluate a student's work or performance. It helps teachers assess students fairly and clearly by describing what is expected at different levels such as excellent, good, satisfactory, or poor. Rubrics are very useful in Physical Education for assessing sports skills, participation, teamwork, and fitness activities because they provide detailed feedback and help students understand how they can improve.

A **checklist** is another important assessment tool used to record whether specific skills, behaviors, or tasks have been completed by a student. It usually contains a list of items with options such as "Yes/No" or "Completed/Not Completed.' Checklists are simple and easy to use and help teachers quickly monitor student performance and participation. In Physical Education, a checklist can be used to check whether students follow safety rules, complete exercises correctly, or participate actively in activities.

# UNIT 3 EMERGENCY MANAGEMENT

## MIND MAP



# GIST

## EMERGENCY MANAGEMENT

**Definition:** Emergency management involves taking immediate measures when normal procedures are interrupted to prevent an incident from escalating into a disaster.

**Cyclical Process:** It often involves a repeating cycle of assessment, planning, action, and review.

**Emergency Action Plan (EAP):** Essential for managing injuries and illnesses in physical education and sports settings. These plans provide a systematic approach to medical, environmental, and security emergencies.

**Importance:** EAPs ensure people can respond quickly to life-threatening conditions and guarantee that critical training, equipment, and protocols are in place before they are needed.




## EMERGENCY ACTION PLAN (EAP)

- Identify emergency contacts and call numbers.
- Know the location of emergency equipment and first aid kit.
- Assign roles and responsibilities.
- Communicate the plan to all staff and students.
- Review and practice the plan regularly.

## COMMON MEDICAL CONDITIONS AND INJURIES

### HEATSTROKE



**Definition:** A life-threatening condition where the body temperature rises rapidly (104°F or 40°C greater) and cannot cool down.

**Signs/Symptoms:**
- Confusion
- Slurred speech
- Hot/dry skin (or heavy sweating)
- Rapid pulse, rapid breathing
- Headache

**First Aid:**



Place the victim in a cool tub/shower, spray with water, use fans, or apply ice packs to the neck, armpits, and groin.

### ALLERGIC REACTIONS AND ASTHMA





**Anaphylaxis Symptoms:**
- Noisy breathing
- Swelling of the tongue/throat
- Difficulty talking
- Abdominal pain, vomiting

**Allergy Response:**
- Lay the person flat (do not let them stand).
- Administer an adernaline autoinjector (e.g., EpiPen®).
- Call for an ambulance.

### ASTHMA ATTACK



Occurs when airways become narrow, swollen and filled with mucus. Triggers: dust, smoke, pollen, exercise, infections, stress, strong smells.

**Symptoms:**
- Severe respiratory distress
- Unable to speak comfortably, lips may turb blue
- Little or no relief from reliever inhaler

### EMERGENCY FIRST AID & MEDICATIONS



**Relievers:** Used during an attack to relax airway muscles.

**Preventers:** Taken daily to reduce sensitivity & inflammation.

**Combination Therapies:** Preventers with two medications in one treatment.

**First Aid:** Use "reliever" medication immediately.

## CARDIAC ARREST AND CPR

**Purpose:** CPR (Cardiopulmonary Resuscitation) is performed when a heart stops beating to increase survival chances.

### HANDS-ONLY CPR STEPS (FOR NON-PROFESSIONALS):

1. **Check for Breathing:** Look for chest movement or listen for breath.



2. **Call for Help:** Dial 108 for an ambulance.




4. **Chest Compressions:** Push hard and fast (100–120 compressions per minute). Compressions should be 2 inches (5 cm) deep for adults/teens, children and 1.5 inch for infants. Allow the chest to rise completely between pushes.





2. **Call for Help:** Dial 108 for an ambulance. of the chece.



5. **Wait for Help:** Continue compressions until medical help arrives.

## FIRST AID – PURPOSE AND BASIC PRINCIPLES

First aid means the treatment given to a 'patient' till proper medical aid comes.

**Purpose:** To preserve life, and prevent the injury from worsening until a doctor arrives and promote recovery.

**Principles:** Act quickly and quietly without panic, treat for shock by moving the patient as little as possible, stop bleeding, and reassure the patient.

### THE DRABC PROTOCOL

| | | |
|---|---|---|
| D | (Danger): | Ensure the area is safe for you and the victim. |
| R | (Response): | Check for consciousness by talking or gently touching the person. |
| A | (Airways): | Check if the airway is blocked; if unconscious, place the patient on their side with the head up to open the throat. |
| B | (Breathing): | Look for chest movement or feel for breath. |
| C | (Circulation): | Check for signs of a heartbeat, movement, or coughing. |

### SPECIFIC INJURY MANAGEMENT



**Cuts and Bruises:** Rinse with water, apply pressure with sterile gauze to stop bleeding, and raise the injured part above heart level.

**Prevention:** Teach the children to handle sharp objects with the right technique.



**Choking (Heimlich Maneuver):** Stand behind the person, wrap arms around the waist, and perform quick upward abdominal thrusts slightly above the navel. If the person is unconscious, clear the airway with a finger sweep if the object is visible, and begin CPR.



**Heat Exhaustion:** Move to shade, lie down with feet elevated, cool with cold sponge, give sips of cool water or sports drinks. If vomiting, turn to side. Seek help if condition worsens.

## OTHER EMERGENCY SITUATIONS

### BREATHING DIFFICULTIES



- Check if the person can speak or respond when you touch their shoulder.
- If no response, call for help and start first aid immediately.
- If alone, give first aid for 1 minute before going for help.

**STEPS**
1. Lay the person on their back.
2. Tilt the head back and lift the chin up.
3. Check breathing for 10 seconds: Look for chest movement, Listen for breathing, Feel breath on your cheek.
4. **If breathing normally,** keep the head tilted back until help arrives.
5. **If not breathing or only gasping,** start CPR/basic life support.

### CUTS AND BLEEDING



**Small Cuts**
- Small cuts usually stop bleeding in a few minutes.
- Wash the area properly.
- Cover it with a clean plaster.



**Deep Cuts**
- Deep cuts bleed slowly and steadily.
- Press gently on the wound with a clean cloth.
- Tie a clean bandage.
- Medical treatment may be needed for stitches or glue.

### CHOKING

- Choking happens when food or an object blocks the airway.
- The person may hold their throat or use hand signs for help.
- Give first aid quickly because oxygen supply to the brain is reduced.



**First Aid (Heimlich Maneuver)**
1. Stand behind the person.
2. Wrap your arms around the waist.
3. Make a fist and place it above the navel.
4. Hold the fist with the other hand.
5. Give quick upward pushes into the abdomen.
6. Repeat up to 5 times if needed.

**If the Person Becomes Unconscious**
- Lay the person on the floor.
- Check the mouth and remove visible blockage carefully.
- Start CPR if the object is still stuck and the person is not responding.
- Keep checking the mouth during CPR.



### BASIC SPORTS INJURIES (SPRAINS AND STRAINS)



**Sprain:** Tearing of ligaments that support joints.



**Muscle Strain:** A twist, pull, or tear of a muscle or tendon.



### FIRST AID FOR SPRAIN AND STRAIN

**R.I.C.E. TREATMENT:**

- **R** **Rest:** Avoid all activities with the injured limb.
- **I** **Ice:** Apply cold packs for 15–20 minutes, 4–8 times a day for the first 48 hours.
- **C** **Compression:** Use an elastic wrap to limit swelling.
- **E** **Elevation:** Keep the limb above the heart to prevent swelling.



### THE CONCEPT OF FIRST AID KIT

A well-stocked kit is essential for physical education classes and should be easily accessible.




### CORE ITEMS INCLUDE:




Sterile gauze pads, adhesive bandages (various sizes), and elastic bandages



Antiseptic wipes/ solution and antibiotic ointment



Scissors, tweezers, safety pins



Instant cold packs, triangular bandages, gloves, CPR face shield



Notebook and pen, emergency contact list

**BE PREPARED. ACT QUICKLY. SAVE LIVES.**

# Emergency Management

**Definition:** Emergency management involves taking immediate measures when normal procedures are interrupted to prevent an incident from escalating into a disaster.

**Cyclical Process:** It often involves a repeating cycle of assessment, planning, action, and review.

**Emergency Action Plan (EAP):** Essential for managing injuries and illnesses in physical education and sports settings. These plans provide a systematic approach to medical, environmental, and security emergencies.

**Emergency response** :It is the immediate action taken to protect life, property, and environment during accidents, disasters, or medical emergencies.

**Importance:** EAPs ensure people can respond quickly to life-threatening conditions and guarantee that critical training, equipment, and protocols are in place before they are needed.

## Common Medical Conditions and Injuries




### Heatstroke

**Definition:** A life-threatening condition where the body temperature rises rapidly (104°F or 40°C greater) and cannot cool down.

**Signs/Symptoms:** Confusion, slurred speech, hot/dry skin (or heavy sweating), rapid pulse, rapid breathing, and headache.

**First Aid:** Place the victim in a cool tub/shower, spray with water, use fans, or apply ice packs to the neck, armpits, and groin.

### Allergic Reactions and Asthma



**Anaphylaxis Symptoms:** Noisy breathing, swelling of the tongue/throat, difficulty talking, abdominal pain, and vomiting.

**Allergy Response:** Lay the person flat (do not let them stand), administer an adrenaline autoinjector (e.g., EpiPen®), and call for an ambulance.

### Asthma Attack:

An asthma attack occurs when the airways become narrow, swollen, and filled with mucus, making breathing difficult. It can be triggered by dust, smoke, pollen, exercise, infections, stress, or strong smells.

**Symptoms of Asthma Attacks**

Severe Respiratory Distress: The individual finds it very difficult to breathe and may have symptoms that worsen very quickly**.**

Communication and Physical Signs: The person is unable to speak comfortably, and their lips may turn blue, indicating a serious emergency.

Inadequate Medication Response: A major warning sign is when the individual gets little or no relief from their reliever inhaler.

## Emergency First Aid and Medications for asthma attack

**Relievers**: These are used during an active asthma attack to act quickly by relaxing the muscles around the airways.

**Preventers**: These medications are taken daily to keep a person well by slowly making the airways less sensitive to triggers and reducing internal inflammation.

**Combination Therapies**: These serve as preventers that contain two different types of medication in one treatment.




Asthma First Aid: Use "reliever" medication to relax airway muscles immediately.

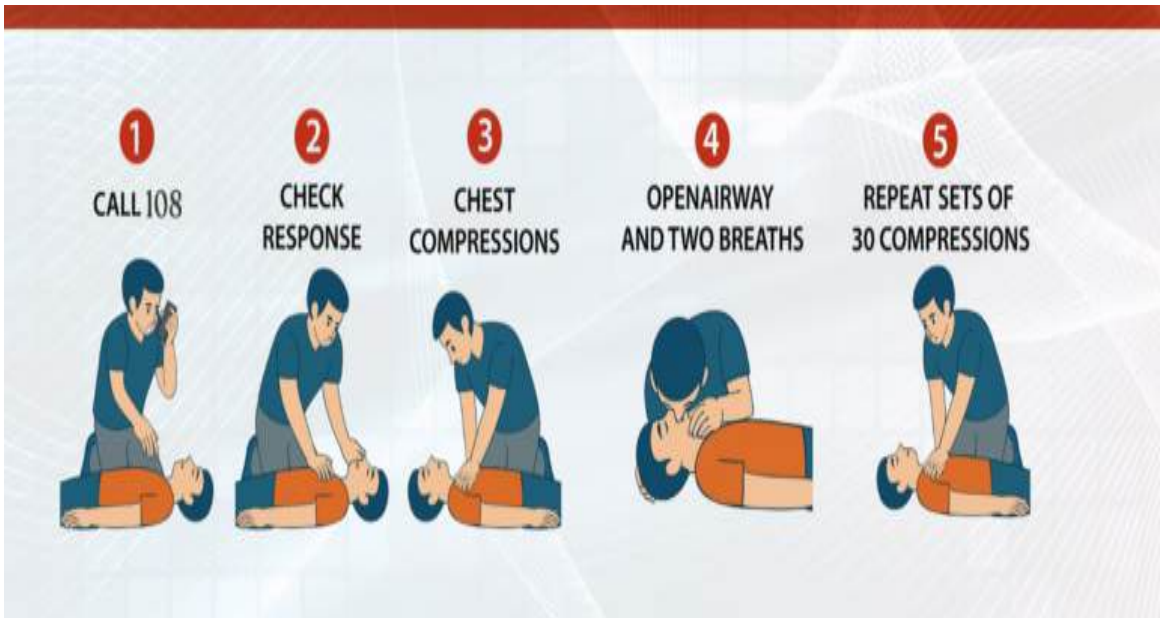
## Cardiac Arrest and CPR

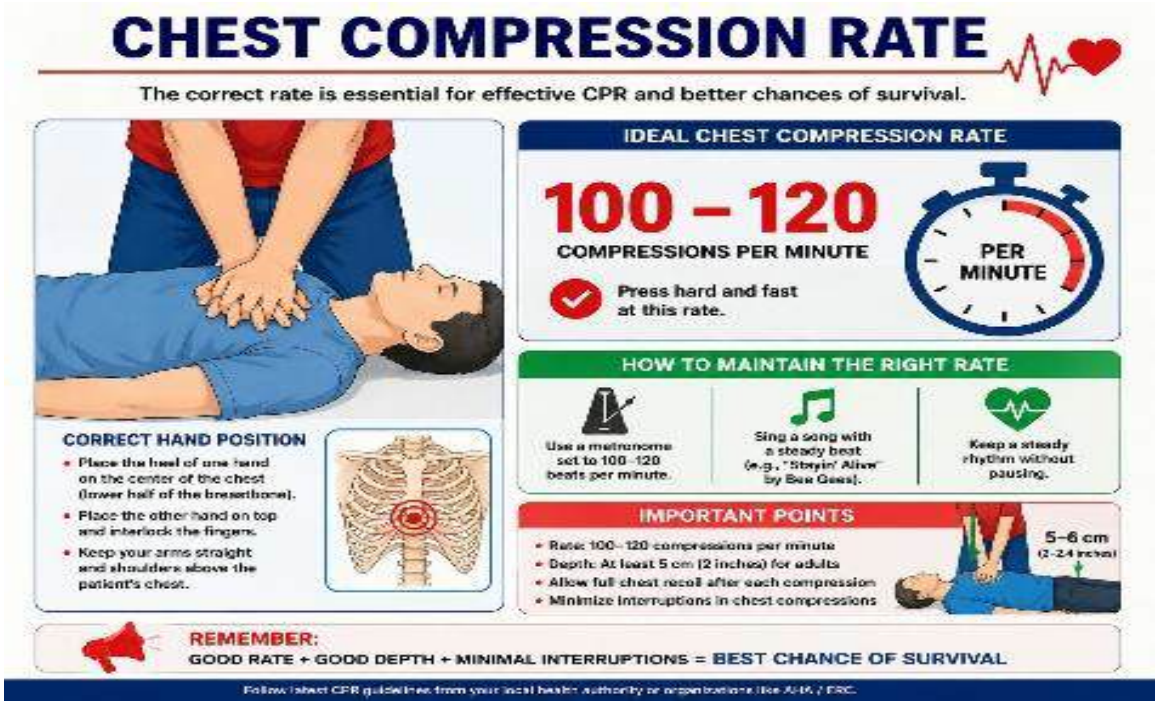
Purpose: CPR (Cardiopulmonary Resuscitation) is performed when a heart stops beating to increase survival chances.

**For non-healthcare providers or bystanders without formal CPR training**:

- **Hands-Only CPR** Steps (for non-professionals):
- **Check for Breathing**: Look for chest movement or listen for breath.
- **Call for Help**: Dial 108 for an ambulance.
- **Positioning**: Kneel beside the victim and place the heel of one hand on the center of the chest (lower half of the breastbone) with the other hand stacked on top.
- **Chest Compressions**: Push hard and fast (100–120 compressions per minute). Compressions should be 2 inches (5 cm) deep for adults/teens children and 1.5 inch for infants. Allow the chest to rise completely between pushes.

Wait for Help: Continue compressions until medical help arrives.



# Emergency action plan

## First Aid -Purpose and Basic Principles

First aid means the treatment given to a 'patient' till proper medical aid comes.

### First Aid Principles and Procedures

Purpose: To **preserve** life, and **prevent** the injury from worsening until a doctor arrives and **promote** recovery.

**Principles**: Act quickly and quietly without panic, treat for shock by moving the patient as little as possible, stop bleeding, and reassure the patient.




## The DRABC Protocol:

DRABC is primary checklist to quickly assess and manage an emergency.

**D (Danger)**: Ensure the area is safe for you and the victim.

**R (Response)**: Check for consciousness by talking or gently touching the person.

**A (Airways)**: Check if the airway is blocked; if unconscious, place the patient on their side with the head up to open the throat.

**B (Breathing)**: Look for chest movement or feel for breath.




**C (Circulation)**: Check for signs of a heartbeat, movement, or coughing.

### Breathing Difficulties

Check if the person can speak or respond when you touch their shoulder.
If there is no response, call for help and start first aid immediately.
If alone, give first aid for 1 minute before going for help.
**Steps**

1. Lay the person on their back.
2. Tilt the head back and lift the chin up.

3. Check breathing for 10 seconds:
   Look for chest movement. Listen for breathing. Feel breath on your cheek.
4. If breathing normally, keep the head tilted back until help arrives.
5. If not breathing or only gasping, start CPR/basic life support.



**Cuts and Bleeding**

**Small Cuts**

Small cuts usually stop bleeding in a few minutes.
Wash the area properly.
Cover it with a clean plaster.

**Deep Cuts**

Deep cuts bleed slowly and steadily.
Press gently on the wound with a clean cloth.
Tie a clean bandage.
Medical treatment may be needed for stitches or glue.




**Heat exhaustion**

Heat exhaustion is a heat-related illness that, while less severe than heatstroke, requires immediate attention to prevent it from escalating into a life-threatening condition.

**Signs and Symptoms**

A student suffering from heat exhaustion may experience:
Severe thirst and muscle weakness.
Nausea or vomiting.
Headache and increased sweating.
Difficulty breathing or decreased responsiveness.

**First Aid Procedures for Heat exhaustion**

If heat exhaustion is suspected, follow these steps:




1. Move to shade: Immediately bring the child out of the heat and into a shaded area.
2. Positioning: Undress the child and have them lie down with their feet elevated.
3. Cooling: If the child is alert, apply a cold sponge to their head.
4. Hydration: Offer sips of cool water or sports drinks.
5. Safety: If the child vomits, turn them onto their side to prevent choking.

Note: If the condition progresses to heatstroke, seek professional medical help immediately.

**Choking**

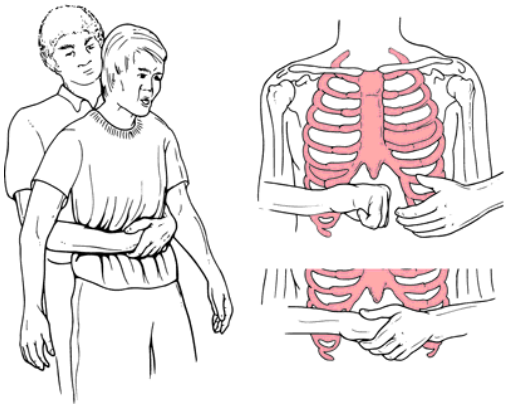
Choking happens when food or an object blocks the airway. The person may hold their throat or use hand signs for help. Give first aid quickly because oxygen supply to the brain is reduced.



First Aid (Heimlich Maneuver)
**Stand behind the person**. Wrap your arms around the waist.
**Make a fist and place it above the navel**.
**Hold the fist with the other hand**.
**Give quick upward pushes** into the abdomen.
**Repeat up to 5 times** if needed.

## If the Person Becomes Unconscious

- Lay the person on the floor.
- Check the mouth and remove visible blockage carefully.
- Start CPR if the object is still stuck and the person is not responding.
- Keep checking the mouth during CPR.



**Basic Sports Injuries (Sprains and Strains)**:

**Sprain**: Tearing of ligaments that support joints.

**Muscle Strain**: A twist, pull, or tear of a muscle or tendon.

**First aid for sprain and strain**

**R.I.C.E**. Treatment:

**Rest:** Avoid all activities with the injured limb.

**Ice**: Apply cold packs for 15–20 minutes, 4–8 times a day for the first 48 hours.

**Compression**: Use an elastic wrap to limit swelling.

**Elevation**: Keep the limb above the heart to prevent swelling.




**The concept of first aid kit**

A well-stocked kit is essential for physical education classes and should be easily accessible. Core items include:

First-aid manual.

Sterile gauze pads, adhesive bandages (various sizes), and elastic bandages.

Antiseptic wipes/solution and antibiotic ointment.

Tweezers, sharp scissors, and safety pins.

Disposable non-latex gloves and a mouthpiece for CPR.

Thermometer and instant cold packs.




A list of emergency phone numbers (hospital, principal, reliable transport)

**Question Bank**

**MCQ**

1. Emergency response is described as a cyclical process. Which of the following correctly identifies the order of this cycle?

A) Action, Review, Planning, Assessment.
B) Assessment, Planning, Action, and Review.
C) Planning, Action, Assessment, Review.
D) Review, Assessment, Planning, Action.

2. An Emergency Action Plan (EAP) is essential in physical education because it:

A) Guarantees that no injuries will ever occur.
B) Ensures critical training, equipment, and protocols are in place before an emergency happens.
C) Provides a way to avoid calling for professional medical help.
D) Is required only for professional athletic arenas.

3.A student has a fever of 104°F, appears confused, and has hot, dry skin after a long outdoor session. What life-threatening condition is most likely occurring?

A) Heat exhaustion.
B) Heatstroke.
C) Anaphylaxis.
D) Cardiac arrest.

4.When providing first aid for heatstroke, where should you specifically place ice packs or cool wet towels?

A) On the hands and feet.
B) On the chest and stomach.
C) On the neck, armpits, and groin.
D) Only on the forehead.

5.If a student experiences a severe allergic reaction (anaphylaxis), what is the first physical positioning step you should take?

A) Help them walk to the school nurse immediately.
B) Lay the person flat and do not allow them to stand or walk.
C) Have them sit in a chair with their head between their knees.
D) Lean them forward to help with breathing.

6.What type of medication is used specifically during an active asthma attack to relax airway muscles?

A) Preventers.
B) Combination therapies.
C) Relievers.
D) Antibiotics.

7.For a non-healthcare provider witnessing a teen or adult collapse, the current recommendation is:

A) Mouth-to-mouth resuscitation only.

B) Compression-only (hands-only) CPR.
C) Waiting for a doctor before touching the victim.
D) Checking for a pulse for at least two minutes before acting.

8.According to the manual, what is the recommended tempo for performing chest compressions during CPR?
A) 60 to 80 compressions per minute.
B) 80 to 100 compressions per minute.
C) 100 to 120 compressions per minute.
D) 120 to 150 compressions per minute.

9.What is the recommended compression depth for adult and teenage victims during CPR?
A) 1 inch (2.5 cm).
B) At least 2 inches (5 cm).
C) Exactly 3 inches (7.5 cm).
D) No more than 1.5 inches (4 cm)

10.In the DRABC protocol of first aid, what does the letter 'A' stand for?
A) Airways.
B) Assessment.
C) Action.
D) Assistance

11.When an unconscious person's airway is blocked by their tongue, how should you position them to open the throat?
A) Face down.
B) Flat on their back with a pillow.
C) On their side with their head up.
D) Sitting upright.

12.Which first aid principle helps reduce tension and anxiety during an emergency?
A) Moving the patient as much as possible.
B) Reassuring the patient and those around them.
C) Panicking to show the urgency of the situation.
D) Attempting complex medical procedures immediately.

13.To slow down bleeding from a deep cut on a limb, you should apply pressure and:
A) Lower the injured part below the heart.
B) Raise the injured part above the heart level.
C) Keep the limb perfectly level with the heart.
D) Apply a tight tourniquet immediately.

14.When performing the Heimlich maneuver (abdominal thrusts) on a conscious choking victim, where should you position your fist?
A) On the center of the breastbone.
B) Slightly above the person's navel.
C) Directly on the ribcage.
D) On the lower abdomen.

15.In the R.I.C.E. treatment for sports injuries, how long should you typically apply ice to the injured area?
A) 5 to 10 minutes once a day.
B) 15 to 20 minutes, four to eight times a day.
C) 60 minutes continuously for the first hour.
D) Only for the first 5 minutes after the injury.

**MCQ.ANSWER KEY**

1.B 2.B 3.B 4.C 5.B 6.C 7.B 8.C 9.B 10.A 11.C 12.B 13.B 14.B 15.B

**SHORT QUESTIONS & ANSWERS**

1.What is the primary objective of emergency management in a physical education setting?

2.What is an Emergency Action Plan (EAP) and why is it necessary for school environments?

3.Identify the symptoms of heatstroke and specify where ice packs should be applied for emergency cooling.

4.How should a facilitator position a student suffering from a severe allergic reaction, and what medication is administered?

5.Describe the steps for performing hands-only CPR on a collapsed teen or adult, including the required tempo and depth.

6.Explain the DRABC protocol used to systematically diagnose problems during a medical emergency.

7.Detail the first aid procedure for a conscious person who is choking (Heimlich maneuver).
8.What does the R.I.C.E. method involve when treating common sports injuries like sprains?

**Answers**

1.Emergency management involves taking immediate measures to prevent an incident from escalating into a disaster. It is often a cyclical process that includes assessment, planning, action, and review.

2.An EAP provides a systematic approach to addressing medical, environmental, and security emergencies. These plans ensure that critical training, equipment, and protocols are established before they are actually needed for serious medical events.

3.Heatstroke symptoms include a fever of 104°F or greater, confusion, slurred speech, and rapid breathing. For emergency first aid, ice packs or cool wet towels must be placed on the neck, armpits, and groin.

4.For a severe allergic reaction (anaphylaxis), the facilitator must lay the person flat and forbid them from standing or walking. They should then administer adrenaline using an autoinjector (such as an EpiPen®) and call an ambulance.

5.After checking for breathing and calling 112 or 108, the facilitator should perform chest compressions in the center of the chest. Pushes should be hard and fast at a rate of 100 to 120
compressions per minute and at a depth of at least 2 inches (5 cm) for adults and teens.

6.DRABC stands for Danger, Response, Airways, Breathing, and Circulation. The process ensures the area is safe, checks for responsiveness, opens the throat if the person is unconscious, verifies breathing for 10 seconds, and looks for signs of a heartbeat or movement.

7.The facilitator stands behind the person, wraps their arms around the waist, and makes a fist slightly above the navel. They then grasp the fist with the other hand and perform quick, upward thrusts into the abdomen to dislodge the blockage.

8.R.I.C.E. stands for Rest, Ice, Compression, and Elevation. This treatment involves avoiding activities with the injured limb, applying cold packs for 15 to 20 minutes (four to eight times a
day), using an elastic wrap to limit swelling, and raising the limb above heart level.

**Long Questions & answers**

1.Explain the need and importance of having an Emergency Action Plan (EAP) in a school or physical education setting.

2.Describe the symptoms of heatstroke and the specific first aid measures used to effectively cool a victim.

3.Outline the procedure for performing "hands-only" CPR on a teen or adult victim who has suddenly collapsed.

4.What does the DRABC protocol stand for, and how is it used to diagnose life-threatening problems in an emergency?

5.Identify the symptoms of a severe allergic reaction (anaphylaxis) and the three critical emergency responses required.

6.Explain the R.I.C.E. method and how it is applied to treat acute traumatic sports injuries like
sprains.

7.Discuss the primary purpose and basic principles of providing first aid to an injured student before professional medical help arrives.

8.Describe how to perform the Heimlich maneuver (abdominal thrusts) on a conscious person who is choking on a mechanical obstruction.

---

**Answers**

1.Emergency Action Plans (EAPs) provide a systematic approach to addressing medical, environmental, and security emergencies. In school settings, they guide people to respond

quickly to serious or life-threatening sports injuries. These plans ensure that sports organizations are prepared for critical events by establishing necessary training, equipment, and protocols before they are needed. This preparation is vital because normal procedures are often interrupted during an emergency, and immediate measures prevent minor incidents from escalating into disasters.

2.Heatstroke is a life-threatening condition marked by a fever of 104°F or higher, confusion, slurred speech, and rapid breathing. Victims may have hot, dry skin or heavy sweating. To provide emergency cooling, place the person in a cool tub or shower, or sponge them with cool water. It is critical to place ice packs or cool wet towels specifically on the neck, armpits, and groin areas while using fans to lower their body temperature rapidly to prevent vital organ damage.

3.If you see a teen or adult suddenly collapse, first check for breathing. If they are unresponsive, call 112 or 108 for an ambulance immediately. Kneel beside them and place the heel of one hand in the centre of the chest with the other hand stacked on top. Perform chest compressions at a rate of 100 to 120 per minute. Compressions should be at least 2 inches (5 cm) deep, allowing the chest to rise completely between pushes until help arrives.

4.DRABC stands for Danger, Response, Airways, Breathing, and Circulation. First, ensure the area is safe (Danger). Check for responsiveness by talking to or touching the victim (Response). If unconscious, ensure the tongue isn't blocking the throat by positioning the head with the chin up (Airways). Check for 10 seconds to see if the chest is moving (Breathing). Finally, look for signs of a heartbeat or movement, such as coughing, to verify (Circulation).

5.Symptoms of anaphylaxis include noisy breathing, swelling of the tongue and throat, difficulty talking, and abdominal pain. Victims may also experience persistent dizziness or paleness. The three critical emergency responses are: first, lay the person flat and do not allow them to stand or walk. Second, administer adrenaline immediately using an autoinjector like an EpiPen®. Third, call for an ambulance right away as this is a medical emergency that requires immediate professional care.

6.R.I.C.E. stands for Rest, Ice, Compression, and Elevation. Rest involves avoiding all activities with the injured limb for at least 48 hours. Apply ice packs for 15 to 20 minutes, four to eight times daily, to limit swelling, ensuring ice isn't used too long to avoid tissue damage. Compression involves using an elastic wrap to reduce inflammation. Finally, elevate the injured limb above the level of the heart whenever possible to further control swelling and pain.

7.The purpose of first aid is to preserve life, assist recovery, and prevent an injury from worsening until a doctor arrives. Key principles include doing "first things first" quickly and quietly without panicking. The facilitator should treat for shock by moving the patient as little as possible and stop any active bleeding. Reassuring the patient and those nearby is also essential to reduce tension and anxiety during the crisis until professional medical aid is obtained.

8.Choking is a mechanical obstruction of air flow, often caused by food. To perform abdominal thrusts, stand behind the person and wrap your arms around their waist. Tip them forward slightly and make a fist with one hand, positioning it slightly above the navel. Grasp the fist with your other hand and press hard into the abdomen with a quick, upward thrust. Perform a total of five thrusts, and repeat the cycle if the blockage is not dislodged.

**QUESTION PAPER**
**Emergency Management and First Aid**
**Total Marks: 25  Time : 1 Hr**

---

## Section A – Multiple Choice Questions (1 Mark Each)

(5 × 1 = 5 Marks)

1. What is the main purpose of Emergency Management?
   a) To increase sports performance
   b) To prevent an incident from becoming a disaster
   c) To organize competitions
   d) To improve fitness
2. Which of the following is a symptom of heatstroke?
   a) Cold skin
   b) Slow pulse
   c) Slurred speech
   d) Low body temperature
3. In the DRABC protocol, "A" stands for:
   a) Alert
   b) Airway
   c) Action
   d) Assessment
4. Which treatment is recommended for sprains and strains?
   a) HOTS
   b) CPR
   c) R.I.C.E.
   d) EAP
5. During CPR, chest compressions should be given at:
   a) 20–30 per minute
   b) 40–50 per minute
   c) 60–70 per minute
   d) 100–120 per minute

---

## Section B – Short Answer Questions

(4 × 2 = 8 Marks)

6. Define Emergency Action Plan (EAP).
7. Write any two symptoms of asthma attack.
8. What are the first aid steps for heat exhaustion?
9. Differentiate between sprain and muscle strain.

---

## Section C – Long Answer Questions

(3 × 4 = 12 Marks)

10. Explain the DRABC protocol used in first aid.
11. Describe the Hands-Only CPR procedure for non-professionals.
12. Explain the R.I.C.E. treatment for sprains and strains.

**Emergency Management – Answer Key**

**MCQ Answers**

1. b) To prevent an incident from becoming a disaster

2. c) Slurred speech

3. b) Airway

4. c) R.I.C.E.

5. d) 100–120 per minute

**Short Answer Questions – Answers**

**6. Define Emergency Action Plan (EAP).**
An Emergency Action Plan (EAP) is a systematic plan used to manage medical, environmental, and security emergencies quickly and effectively.

**7. Write any two symptoms of asthma attack.**
Severe difficulty in breathing and blue lips are two symptoms of an asthma attack.

**8. What are the first aid steps for heat exhaustion?**
Move the person to a shaded area, make them lie down with feet elevated, apply cooling methods, and provide cool water or sports drinks.

**9. Differentiate between sprain and muscle strain.**
Sprain is an injury to ligaments, whereas muscle strain is an injury to muscles or tendons.

**Long Answer Questions – Answers**

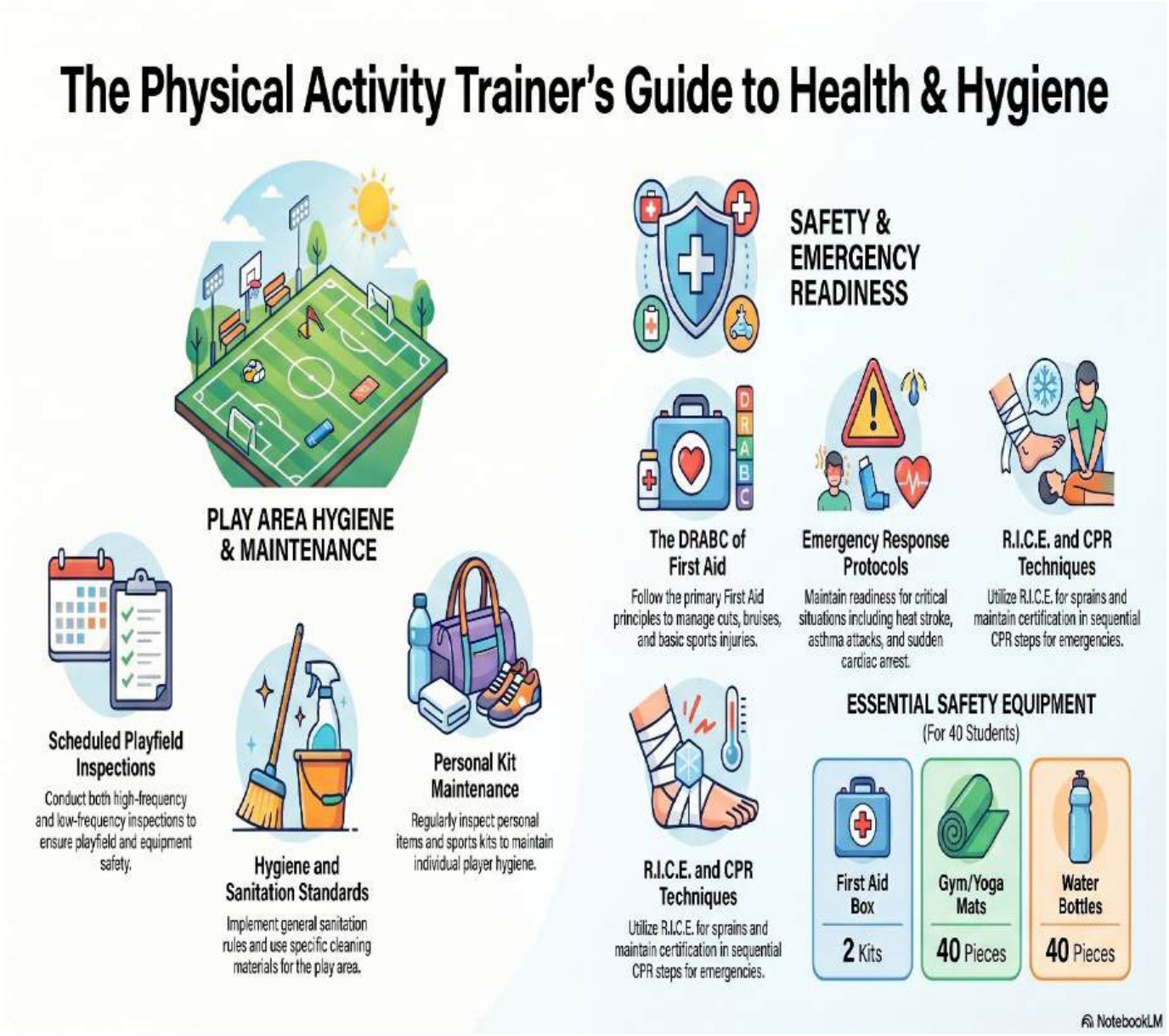
**10. Explain the DRABC protocol used in first aid.**
D – Danger: Ensure the area is safe.
R – Response: Check if the person responds.
A – Airway: Ensure the airway is clear.
B – Breathing: Check for breathing.
C – Circulation: Check heartbeat, movement, or coughing.

**11. Describe the Hands-Only CPR procedure for non-professionals.**
Check breathing, call 112, kneel beside the victim, place hands on the center of the chest, give hard and fast compressions at 100–120 per minute, and continue until help arrives.

**12. Explain the R.I.C.E. treatment for sprains and strains.**
R – Rest the injured part.
I – Apply Ice packs.
C – Use Compression bandage.
E – Elevate the injured limb above heart level.

## SUBJECT: PHYSICAL ACTIVITY TRAINER

## UNIT :4 HEALTH AND HYGIENE IN PLAY AREA



# GIST OF THE UNIT: 4

# HEALTH, PHYSICAL FITNESS & ORGANIZING SPORTS ACTIVITIES

## HEALTH

According to WHO (World Health Organization), "Health is a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity."

## PHYSICAL FITNESS

**Definition:**
Physical fitness is a measure of the body's ability to function efficiently and effectively in work and leisure activities without injury. It is the ability to perform daily tasks vigorously with enough energy left for emergencies and leisure.

## BENEFITS OF PHYSICAL FITNESS

### IMPROVED HEALTH
through
- Increased efficiency of heart and lungs
- Increased muscle strength
- Reduced risk of major illnesses such as diabetes and heart disease
- Weight loss
- Reduced cholesterol levels
- Reduced blood pressure

### IMPROVED SENSE OF WELL-BEING
through
- Increased energy levels
- Improved quality of sleep
- Increased mental sharpness
- Reduction of stress
- Improved ability to cope with stress

### IMPROVED APPEARANCE
through
- Weight loss
- Improved posture
- Toned muscles

### ENHANCED SOCIAL LIFE
through
- Improved self-image
- Increased opportunities to share an activity with friends or family members
- Increased opportunities to make new friends

### INCREASED STAMINA
through
- Increased productivity
- Less frequent injuries
- Increased physical capabilities
- Improved immunity to minor illnesses

## THREE STAGES OF TEAM SELECTION

### 1 TALENT DETECTION
- Students are exposed to different sports.
- Students are grouped according to:
  - Interest
  - Skill level
- Identifies students with potential who are not already involved in sports.

### 2 TALENT IDENTIFICATION
- Recognizes students already participating in sports.
- Identifies players with the potential to excel.
- Performance is predicted using:
  - Physical attributes
  - Physiological attributes
  - Psychological attributes
  - Sociological attributes

### 3 TALENT DEVELOPMENT
- Provides a suitable learning and training environment.
- Helps students realize and improve their sporting talent.
- Focuses on continuous practice and skill improvement.

## LIST OF IMPORTANT EVENTS IN A YEAR

- Sports Day
- Intramural & Extramural Tournaments
- Independence Day/ Republic Day
- Father's Day/ Mother's Day/ Grandparent's Day/ Children's Day
- Summer/Winter Camp

## ORGANIZING SPORTS DAY – PLANNING (THREE PHASES)

### 1 PRE-SPORTS DAY
(agenda, invitations, trials)
- Setting up the agenda for the Sports Day
- Assigning of Duties
- Inviting Chief Guest and Parents
- Trials and final practice

### 2 SPORTS DAY
(ceremonies, final activities, prizes)
- March Past
- Mass Drill
- Athletic Events & Fun Games
- Prize Ceremony

### 3 POST-SPORTS DAY
(winding up, feedback, settling accounts)
- Collect feedback
- Settle accounts
- Prepare report
- Thank all stakeholders

## ORGANIZING TOURNAMENTS

A tournament is a competition involving a relatively large number of competitors; all participating in a sport or game.

### THREE STAGES OF TOURNAMENT
Pre-Tournament → Tournament Day → Post Tournament

### TOURNAMENT MANAGEMENTS PLAN

| Stage | Details |
|---|---|
| Pre-Tournament | Infrastructure, Number of Teams, Organizing Team, Roles and Responsibilities |
| Tournament Day | Ground Readiness, Fixture/Agenda, Activities – Finals, Prize Distribution |
| Post Tournament | Winding Up, Feedback and Learnings, Report to the School |

### KNOCKOUT TOURNAMENT – BYE FORMULA

The Bye Formula is used in knockout tournaments when the number of teams is not a power of 2 (2, 4, 8, 16, 32, etc.). A bye allows a team to automatically advance to the next round without playing in the first round.

$$\text{Number of Byes} = 2^{n} - N$$

Where:
$2^n$ = Next higher power of 2
$N$ = Total number of teams

## CONDUCT FITNESS SESSIONS

### IMPORTANCE OF TRAINING
Training improves fitness and sports performance. It helps in:
- Increasing cardiovascular capacity.
- Converting more fat into energy.
- Strengthening muscles for prolonged activity.
- Strengthening tendons and ligaments.
- Improving sport-specific performance.

### HEALTH RELATED COMPONENTS OF FITNESS

**AEROBIC CAPACITY**
Ability to use oxygen during long-duration activities. (Also called cardiorespiratory fitness.)
Examples: Running, Jogging, Swimming, Cycling

**ANAEROBIC CAPACITY**
Ability to perform activities with less oxygen or stored oxygen. (Short-duration, high-intensity activities.)
Examples: 30 m run, 50 m run, 100 m run, Weight lifting

**STRENGTH**
Maximum force that can be developed in a muscle or group of muscles during a single maximal contraction.
Examples: Standing Broad Jump, Medicine Ball Throw

**FLEXIBILITY**
Range of movement possible at a joint.
Examples: Sit and Reach test, Split, Gymnastics, Yoga Asanas

**WEIGHT OR RESISTANCE TRAINING**
Training using weights or resistance to improve muscle strength. Not recommended for primary school children.

### WARM-UP EXERCISES
Warm-up exercises prepare the body and mind before physical activity.

**BENEFITS**
- Increases muscle temperature and flexibility
- Reduces risk of muscle strain and injury
- Improves blood circulation & oxygen supply
- Dilates blood vessels & reduces stress on the heart
- Increases range of motion at joints
- Helps in better energy production
- Mentally prepares athletes (focus & concentration)

**EXAMPLES**
- Light Jogging – 5–10 min
- Dynamic Stretches – 5–10 min
- Mobility Drills – 5–10 min

### COOL-DOWN EXERCISES
Cool-down exercises help the body return to normal gradually.

**BENEFITS**
- Gradually lowers heart rate & breathing rate
- Prevents dizziness and muscle cramps
- Reduces muscle soreness & stiffness
- Helps remove waste products like lactic acid
- Promotes relaxation and recovery

**EXAMPLES**
- Slow Walking – 5–10 min
- Stretching – 5–10 min
- Deep Breathing – 5 min

### STRETCHING – BENEFITS & TIPS

**BENEFITS**
- Enhanced physical fitness
- Enhanced ability to learn & perform skilled movements
- Increased mental & physical relaxation
- Enhanced development of body awareness
- Reduced risk of injury to joints, muscles and tendons
- Reduced muscular soreness
- Reduced muscular tension

**TIPS TO REMEMBER**
- Don't shower.
- Take it easily/take more steps.
- Walk 5–10 short 'fit' steps.
- Slowly lift your arms above your head and stretch your fingers.
- Breathe in deeply and slowly through your nose.
- Breathe out slowly through your mouth.
- Repeat the exercise 5–10 times.

### STRETCHING & JOINT HEALTH
The cartilage present at the ends of bones gets nourishment from the synovial fluid surrounding the joints. During stretching, pressure and suction forces are created in the joints, helping the cartilage absorb synovial fluid effectively. Regular stretching improves cartilage nutrition, loosens connective tissues, and increases flexibility. Stretching also requires both physical and mental concentration for better results.

## SELECTING YEARLY SPORTS ACTIVITIES

### PLANNING OF SPORTS ACTIVITIES
- Yearly sports activities are planned at the beginning of every academic year.
- Activities are linked with the sports "Goals" of the school.
- Sports goals are aligned with the school's Vision and Mission.
- Approval and consent of the school management are necessary.

### FACTORS DETERMINING SPORTS ACTIVITIES
- Availability of sports infrastructure in the school.
- Availability and specialization of PE teachers/coaches.
- Past achievements and sports history of the school.
- Type of school:
  - Boys' school – Girls' school – Co-educational school
- Skill level of students in different sports.
- Popularity of sports in the local region.

### RESPONSIBILITY OF PE AND SPORTS DEPARTMENT
- Form teams for different sports and categories.
- Ensure students receive proper training before selection.
- Plan and conduct the selection process carefully.

## SPORT-SPECIFIC PARAMETERS FOR SELECTION

| | |
|---|---|
| FOOTBALL | Ability in ball control (using foot, thigh, chest, head), dribbling, passing accuracy, attacking/defending, and endurance. |
| BASKETBALL | Space awareness, ball handling (both hands), sense of direction, and shooting (free shots/2 pointers). |
| VOLLEYBALL | Agility, setting with fingertips, spiking (jumping and timed contact), and 15-minute continuous play endurance. |

## SPORTS DAY – CHECKLIST ON THE DAY OF THE EVENT

| S. No. | Category | Checklist Item | Yes | No | N/A |
|---|---|---|---|---|---|
| 1.1 | March Past | Ground marking | ☐ | ☐ | ☐ |
| 1.2 | March Past | Drums and sticks (at least 2 drums and 4 sticks) | ☐ | ☐ | ☐ |
| 1.3 | March Past | House flags and house placards | ☐ | ☐ | ☐ |
| 1.4 | March Past | Flag stands | ☐ | ☐ | ☐ |
| 2.1 | Mass Drill | Ground marking for formations with entry and exit | ☐ | ☐ | ☐ |
| 2.2 | Mass Drill | PA system and music CD | ☐ | ☐ | ☐ |
| 2.3 | Mass Drill | Teachers' names with assigned duties | ☐ | ☐ | ☐ |
| 2.4 | Mass Drill | Props | ☐ | ☐ | ☐ |
| 3.1 | Athletic Events & Fun Games | Track marking | ☐ | ☐ | ☐ |
| 3.2 | Athletic Events & Fun Games | Event list | ☐ | ☐ | ☐ |
| 3.3 | Athletic Events & Fun Games | Officials – Competition director, starter, time keepers, etc. | ☐ | ☐ | ☐ |
| 3.4 | Athletic Events & Fun Games | Starter's stand / Clapper / Gun | ☐ | ☐ | ☐ |
| 3.5 | Athletic Events & Fun Games | Stop watch | ☐ | ☐ | ☐ |
| 3.6 | Athletic Events & Fun Games | Batons for relay | ☐ | ☐ | ☐ |
| 3.7 | Athletic Events & Fun Games | Props and equipment related to athletic events and fun activities | ☐ | ☐ | ☐ |
| 3.8 | Athletic Events & Fun Games | Event completion sheets | ☐ | ☐ | ☐ |
| 4.1 | Prize Ceremony | Certificates, trophies and medals for 1st, 2nd & 3rd place with ribbons | ☐ | ☐ | ☐ |
| 4.2 | Prize Ceremony | Tray to present medals | ☐ | ☐ | ☐ |
| 4.3 | Prize Ceremony | Guest names for prize distribution | ☐ | ☐ | ☐ |
| 4.4 | Prize Ceremony | Vote of thanks | ☐ | ☐ | ☐ |
| 5.1 | Facility Arrangement | Volunteers – task distribution and briefing | ☐ | ☐ | ☐ |
| 5.2 | Facility Arrangement | Wash rooms / Toilets | ☐ | ☐ | ☐ |
| 5.3 | Facility Arrangement | Drinking water | ☐ | ☐ | ☐ |
| 5.4 | Facility Arrangement | Shamiana, chairs and tables for students and audience | ☐ | ☐ | ☐ |
| 5.5 | Facility Arrangement | Victory stand | ☐ | ☐ | ☐ |
| 5.6 | Facility Arrangement | Stationery items – paper, pen/pencil, eraser, sharpener, etc. | ☐ | ☐ | ☐ |
| 5.7 | Facility Arrangement | Balloons | ☐ | ☐ | ☐ |
| 5.8 | Facility Arrangement | PA / Music System – speakers and microphones including cordless microphones | ☐ | ☐ | ☐ |
| 6.1 | First-Aid | First-aid box | ☐ | ☐ | ☐ |
| 6.2 | First-Aid | Doctor / Nurse | ☐ | ☐ | ☐ |
| 6.3 | First-Aid | Ice pack / Ice box | ☐ | ☐ | ☐ |
| 7.1 | Others | House competition point table | ☐ | ☐ | ☐ |
| 7.2 | Others | Sports day schedule – multiple copies | ☐ | ☐ | ☐ |
| 7.3 | Others | Bouquets | ☐ | ☐ | ☐ |
| 7.4 | Others | Snacks and water bottles for chief guest and distinguished guests | ☐ | ☐ | ☐ |
| 7.5 | Others | Placards on themes – Global warming, Go Green Earth, Drug Abuse, etc. | ☐ | ☐ | ☐ |

## POST SPORTS DAY CHECKLIST

| Task | Process | Status (✓/X) | Remarks |
|---|---|---|---|
| Props Collection | Collect all props and equipment, score boards, cards, stationeries and place them back in the designated area. Ensure the ground/ courts are clean and tidy before leaving the venue. | | |
| Handover | Handover different props and equipment borrowed or rented from various places. | | |
| Report | Prepare a report and send it to the concerned departments. | | |
| Settlement of Accounts | Complete payment and submission of bills, prepare statement of expenditure, and deposit the balance amount in the accounts office. | | |
| Team Meeting & Feedback | Evaluate the event and discuss strengths as well as areas needing improvement. | | |

## 1. UNDERSTANDING HEALTH AND HYGIENE

**Health:** A state of complete physical, mental, and social well-being, not just the absence of disease.

**Hygiene:** The practice of keeping oneself and surroundings clean to prevent the spread of disease.

### GENERAL HYGIENE RULES

- Bath every day after practice.
- Wash hands, face, and feet immediately after playing.
- Change clothes and undergarments frequently; never sleep in daily clothes.
- Regularly cut hand and foot nails.
- Wash all fruits and vegetables before eating.

## 2. FOOD AND DRINKING HYGIENE

**Hand Washing:** Wash and dry hands thoroughly before handling food and frequently during work using clean or disposable towels.

**Prohibited Actions:** No smoking, chewing gum, spitting, or eating in food handling/ storage areas.

**Protective Measures:** Wear clean aprons, tie back or cover long hair, and keep fingernails short without nail polish.

**Personal Health:** Do not handle food if feeling unwell; completely cover all cuts with waterproof bandages and wear disposable gloves over them.

## 3. INSPECTION AND MAINTENANCE OF FACILITIES

### High Frequency Inspections

- Performed daily or weekly.
- Check changing conditions like weather damage, trash, or sanitation issues.

### Low Frequency Inspections

- Performed quarterly or semi-annually.
- In-depth investigations into wear and tear requiring mechanical knowledge.

## 4. SPECIFIC PROTECTION ITEMS

**Specific protection items are those pieces of personal protective equipment which protect a specific body area.**

Leather Gloves | Rubber Gloves | Safety Gloves | Safety Goggles | Safety Eyewear / Glasses | Guards | Helmet

### NEVER USE

- Harsh Chemicals
- Paint, Glue not approved by the manufacturer
- Solvent-based adhesives
- Permanent Markers

## 5. PERSONAL ITEMS AND KITS

### Inspection

Check for cracks, fraying, holes, or chemical damage before cleaning.

### Cleaning

- Dampen with warm soapy water (do not immerse), scrub with a soft brush, and rinse.
- Use white vinegar to remove odours from leather items.

### Storage

Store in a cool location away from direct sunlight.

## 6. MAINTENANCE AND SERVICE OF SPORT FACILITIES

### Daily Maintenance

- **Keep the surface clear:** Regularly remove debris like leaves, stones, and sharp objects from the pitch.
- **Daily cleaning:** If the floor is cemented, it should be swept every day.
- **Use proper shoes:** Only allow recommended footwear on courts to avoid damaging the surface.
- **Maintain surroundings:** Keep both the play area and the space around it clean.
- **Care for equipment:** Regularly clean and inspect equipment and props (goal posts, volleyball poles, basketball posts, etc.) to ensure they are in good condition.
- **Manage waste:** Provide plenty of dustbins to encourage cleanliness.

### Annual Maintenance

- **Drainage and Levelling:** Once a year, check ground level and slope, ensure no waterlogging and repair drainage systems.
- **Professional Cleaning:** Specialized tasks like brushing cemented floors or artificial turf require professional cleaning annually.

### Ball Maintenance (Football, Basketball, Volleyball)

- **Correct Inflation:** Football (5.5–16 PS), Basketball (7–9 PS), Volleyball (5.8–6.5 PS).
- **Inflation Technique:** Moisten the needle before use and add air gradually by hand; avoid using machines.
- **Post-Use Care:** Deflate the balls slightly after use. Wipe with soft, moist cloth; if using mild detergent, wipe it off completely.
- **Drying and Storage:** Dry in a well-ventilated place out of direct sunlight and inflate regularly. Avoid hot or damp storage areas.

### General Props and Equipment Care

**Routine Cleaning:** Wipe after every activity and store in well-ventilated areas away from sunlight.

**Regular Inspections:** Check condition periodically and remove damaged items from use.

**Material-Specific Care:**

- **Metal/Iron:** Do not store in damp places (moisture causes rust).
- **Leather:** Never apply water; use only a dry cloth.

**Sun Protection:** Do not leave equipment in direct sunlight for the whole day; it reduces its lifespan.

## 7. MAINTENANCE OF HYGIENE IN PLAY AREA

### Playground Hygiene

- Do not litter.
- Throw garbage only in dustbins.
- Segregate waste into biodegradable and non-biodegradable.
- Do not destroy plants; do not pluck flowers and leaves around the play area.

WET WASTE | DRY WASTE

### Equipment Safety Checklist

- Ensure there is no broken, rusted, or splintered equipment.
- Check for protruding hardware (bolts, nails, S-hooks) that could cut a child.
- If a sandpit is present, ensure it is free of hazardous debris and bugs; cover it when not in use.

## 8. SAFETY WHILE PLAYING

### Physical Preparation and Hydration

- Warm-up before activity.
- Wear proper sports attire and shoes.
- Carry a water bottle and drink regularly.
- Do not push your body beyond its limits.

### Field and Equipment Safety

- Ensure the play area is clear of sharp objects.
- Inspect equipment regularly. Do not use damaged, broken, or worn-out gear.
- Use sports equipment only for its intended purpose, not as weapons.
- Maintain enough free space in front of equipment like slides or swings.

### Safe Behaviour and Conduct

- Stay alert to moving people and objects.
- Do not cross through play areas where active games are being played.
- If an injury occurs, seek immediate help from teacher or coach.
- If equipment is broken or loose, it must be off-limits until repaired.

## 9. SAFETY IN THE SWIMMING POOL

### Supervision

Never enter a pool without proper supervision, even if you are a good swimmer or using floats.

### Entry / Exit

Inform the staff on duty when entering and exiting the pool area.

### Hygiene

Shower both before and after swimming.

### Safe Conduct

Avoid horseplay and never dive into shallow water.

### Health Status

Do not enter the pool if you are suffering from skin infections, contagious diseases, or open wounds.

## Understanding Health and Hygiene

**Health:** A state of complete physical, mental, and social well-being, not just the absence of disease.
**Hygiene:** The practice of keeping oneself and surroundings clean to prevent the spread of disease.
**General Rules:**

- Bath every day after practice.
- Wash hands, face, and feet immediately after playing.
- Change clothes and undergarments frequently; **never sleep in daily clothes**.
- Regularly cut hand and foot nails.
- Wash all fruits and vegetables before eating.

## Food and Drinking Hygiene

Since bacteria can spread easily, those supplying food and drinks must follow strict protocols:
**Hand Washing:** Wash and dry hands thoroughly before handling food and frequently during work using clean or disposable towels.
**Prohibited Actions:** No smoking, chewing gum, spitting, or eating in food handling/storage areas.
**Protective Measures:** Wear clean aprons, tie back or cover long hair, and keep fingernails short without nail polish.
**Personal Health:** Do not handle food if feeling unwell; completely cover all cuts with waterproof bandages and wear disposable gloves over them.

## Inspection and Maintenance of Facilities

Regular inspections ensure safety and longevity of the play space and equipment.

**High Frequency Inspections:** Performed **daily or weekly** to check changing conditions like weather damage, trash, or sanitation issues.

**Low Frequency Inspections:** Performed **quarterly or semi-annually**; these are in-depth investigations into wear and tear requiring mechanical knowledge.

## Specific Protection Items

**Specific protection items are those pieces of personal protective equipment which protect a specific body area**

eg. Leather gloves, Rubber gloves , Safety gloves ,Safety goggles ,Safety eyewear and glasses ,Guards ,Helmet.

**Never Use**
Harsh chemicals, Paint, Glue not approved by the manufacturer, Solvent-based ,adhesives, Permanent markers

**Personal items and kits**
**Inspection:** Check for cracks, fraying, holes, or chemical damage before cleaning.

**Cleaning:** Dampen with warm soapy water (do not immerse), scrub with a soft brush, and rinse. Use white vinegar to remove odours from leather items.
**Storage:** Store in a cool location away from direct sunlight.
**Cleaning:** Wipe with a soft cloth. For heavy dirt, use mild detergent but ensure it is thoroughly wiped off to prevent staining.
**Storage:** Always **deflate a little air after use** to prevent expansion or deformation. Store in well-ventilated areas out of direct sunlight.
**Inspection of play area**

**Maintenance and service of sport facilities**

To maintain the quality and safety of sports surfaces and equipment, follow these simplified steps:

- Keep the surface clear: Regularly remove debris like leaves, stones, and sharp objects from the pitch to prevent injuries.
- Daily cleaning: If the floor is cemented, it should be swept every day.
- Use proper shoes: Only allow recommended footwear on courts to avoid damaging the surface.

Maintain surroundings: Keep both the play area and the space around it clean.

- Care for equipment: Regularly clean and inspect equipment and props, such as goal posts, volleyball poles, and basketball posts, to ensure they are in good condition.
- Manage waste: Provide plenty of dustbins to encourage cleanliness

**Special maintenance at least once a year:**

**Ensure the longevity and safety of sports facilities and equipment, the following maintenance protocols should be followed:**

**Annual Surface Maintenance**

**Drainage and Levelling:** At least once a year, the ground's level and slope must be checked to ensure there is no water logging, and drainage systems should be repaired if necessary.
**Professional Cleaning:** Specialized tasks like brushing cemented floors with professional machinery or following specific instructions for artificial turf are required annually.

**Ball Maintenance (Football, Basketball, Volleyball)**

**Correct Inflation:** Always check pressure carefully: Football (5.5–16 PS), Basketball (7–9 PS), and Volleyball (5.8–6.5 PS).
**Inflation Technique**: Moisten the needle before use and add air gradually by hand; avoid using machines to prevent over-inflation or damaging the inner bladder.

**Post-Use Care**: Deflate the balls slightly after use to prevent deformation. Wipe them with a soft, moist cloth; if using a mild detergent for heavy dirt, wipe it off completely to avoid staining.
**Drying and Storage**: Always dry balls in a well-ventilated place out of direct sunlight and inflate regularly. Avoid hot or damp storage areas.

## General Props and Equipment Care

**Routine Cleaning:** After every activity, wipe props and equipment with a dry cloth and store them in well-ventilated areas away from sunlight.
**Regular Inspections:** Periodically check the condition of all equipment to identify and remove damaged items from use.
**Material-Specific Care:**
**Metal/Iron:** Do not store in damp places, as moisture leads to rusting.
**Leather:** Never apply water; use only a dry cloth for cleaning**.**
**Sun Protection:** Do not leave equipment in direct sunlight for the whole day, as it reduces its lifespan

## Maintenance of Hygiene in Play Area

### Playground Hygiene

**Responsible Behaviour:** Do not litter, throw garbage only in dustbins, and segregate waste into biodegradable and non-biodegradable categories.Do not destroy plants; do not pluck flowers and leaves around the play area.

## Equipment Safety Checklist:

Ensure there is **no broken, rusted, or splintered** equipment.
Check for protruding hardware (bolts, nails, S-hooks) that could cut a child.
If a sandpit is present, ensure it is free of hazardous debris and bugs; cover it when not in use.
**Safety while playing**
To ensure safety while playing, students and facilitators should follow these essential guidelines for physical preparation, equipment use, and behaviour on the field:
## Physical Preparation and Hydration
**Warm-up:** Never start vigorous physical activity without a proper **warm-up** to prepare the body for exertion.
**Proper Attire:** Use the **correct sports attire**, including appropriate shoes and clothes, for the specific activity.
**Hydration:** Always carry a water bottle to the ground and drink regularly to **stay hydrated** and replace lost fluids, especially on hot days.
**Know Your Limits:** Do not push your body beyond its physical limits.

**Field and Equipment Safety**

**Surface Inspection:** Ensure the play area is clear of **sharp objects** such as nails, glass, stones, thorns, or metal.
**Equipment Check:** Regularly inspect all props and equipment. Do not use **damaged, broken, or worn-out** sports gear.
**Proper Usage:** Use sports equipment only for its intended purpose and **never as Weapons**.
**Safety Zones:** Maintain enough free space in front of equipment like slides or swings, and ensure children are not in close proximity when it is in use.
**Safe Behaviour and Conduct**
**Awareness:** Stay **alert to moving people** and objects on the ground at all times.
**Crossing Play Areas:** Do not cross through play areas where active games are already being played.
**Reporting Injuries:** If an injury occurs, seek **immediate help** from a teacher or coach.
**Off-Limits Equipment:** If equipment is broken or loose, it must be designated as off-limits immediately until repaired.
**Safety in the Swimming Pool**
**Supervision:** Never enter a pool without **proper supervision**, even if you are a good swimmer or using floats.
**Entry/Exit:** Inform the staff on duty when entering and exiting the pool area.
**Hygiene:** Shower both before and after swimming.
**Safe Conduct:** Avoid **horseplay** and never dive into shallow water.
**Health Status:** Do not enter the pool if you are suffering from skin infections, contagious diseases, or open wounds.

**Multiple Choice Questions**

**1. A physical activity facilitator is asked to define "health" for a school newsletter. According to the textbook, which definition should they**

A) The absence of physical illness or injury.

B) A state of high athletic performance and fitness.

C) A state of complete physical, mental, and social well-being.

D) The ability to participate in daily exercise without fatigue.

**2. During a lesson on personal hygiene, a student asks why they should change their clothes after practice. Which rule from the manual specifically addresses the bedtime routine?**

A) Always wash hands, face, and feet after playing.

B) Never go to bed in your daily clothes.

C) Cut hand and foot nails regularly.

D) Take a bath only on days with heavy training.

**3. A facilitator is assigned to help serve drinking water and snacks during a sports day. If they wake up feeling unwell with a fever, what is the correct action to take?**

A) Wear a mask and continue serving the students.

B) Handle only packaged food and avoid open containers.

C) Inform a supervisor and do not handle any food or drinks.

D) Use extra hand sanitiser before serving each child.

**4. A food supplier at a school sports event has a small cut on their finger. According to hygiene protocols, how must this is managed?**

A) It must be left open to air dry quickly.

B) It should be covered with a standard clear plaster.

C) It must be covered with a brightly coloured waterproof bandage and a disposable glove.

D) They should simply avoid using that finger while serving.

**5. A school requires a daily check of the playground for trash and weather-related hazards. What type of inspection is this?**

A) Low Frequency Inspection.

B) High Frequency Inspection.

C) Annual Maintenance Audit.

D) External Safety Review.

**6. The school principal wants to schedule an in-depth investigation of play equipment wear and tear, such as checking for worn chains on swings. Who should perform this Low Frequency Inspection?**

A) Any available student volunteer.

B) A staff member with mechanical and standards knowledge.

C) The physical education teacher at the start of every class.

D) A daily cleaning crew during their regular shift.

**7. When cleaning leather personal protective equipment (PPE) to remove unpleasant odours, what should be added to the rinsing water?**

A) 10 ml of liquid bleach.

B) 2–5 ml of white vinegar.

C) Strong scented perfume.

D) Antibiotic ointment.

**8. A facilitator is inflating several new basketballs. What step must they take to avoid damaging the inner bladder?**

A) Use a high-powered electric pump for maximum speed.

B) Moisten the needle and add a small amount of air at a time.

C) Fully inflate the ball in one single burst of air.

D) Soak the ball in hot water to soften the material first.

**9. After a football session, the facilitator deflates a small amount of air from the balls before storage. Why is this done?**

A) To make the balls easier to fit in a storage bag.

B) To ensure students cannot play with them unsupervised.

C) To prevent the balls from expanding or deforming.

D) To save the air pressure for the next day's game.

**10. A school has a cemented court used for multiple sports. What is the daily maintenance requirement for this specific surface?**

A) It should be hosed down with high-pressure water.

B) It should be swept daily.

C) It requires professional machine brushing every morning.

D) It should be polished with wax to increase speed.

**11. Where should sports equipment made of iron or metal be stored to prevent rusting?**

A) In a damp basement to keep the metal cool.

B) In a well-ventilated area away from moisture.

C) Outdoors on the pitch for easy access.

D) Directly under the sun to keep the metal dry.

**12. A facilitator needs to clean a set of leather cricket pads. What is the manual's instruction regarding water and leather props?**

A) Immerse them in soapy water for ten minutes.

B) Scrub them with a wire brush and detergent.

C) Do not apply water; always use a dry cloth to clean.

D) Leave them in the rain to naturally wash away dirt.

**13. During a playground cleanup, students are asked to manage waste properly. What is the best way to handle the garbage collected?**

A) Mix all trash into one large bin for convenience.

B) Segregate waste into biodegradable and non-biodegradable categories.

C) Burn all non-biodegradable waste on the edge of the field.

D) Bury all waste in a pit near the sandpit.

**14. While inspecting a slide, a facilitator notices a loose bolt and a splintered wooden edge. What is the immediate required action?**

A) Tell students to be careful while using it.

B) Designate the equipment as off-limits immediately.

C) Wait for the quarterly Low Frequency Inspection to report it.

D) Attempt to glue the splintered wood back during class.

**15. A student wants to join the swimming class but has a visible skin infection on their arm. According to the pool safety protocols, what should happen?**

A) They can swim if they shower for five minutes first.

B) They must wear a long-sleeved shirt while in the water.

C) They should not go to the pool or enter the water.

D) They are allowed to swim only in the shallow end of the pool.

---

**MCQ Answers**

**1.C 2.B 3.C 4.C 5.B 6.B 7.B 8.B 9.C 10.B 11.B 12.C 13.B 14.B 15.C**

**<u>Short Questions</u>**

1. How is **health defined** beyond the mere absence of disease?

2. What are the essential **personal hygiene** and sanitation rules students should follow after practice?

3. What hygiene protocols must individuals follow when **supplying food and drinks** during sports?

4. Briefly explain the difference between **High Frequency** and **Low Frequency** facility inspections.

5. What are the specific procedures for **maintaining and storing sports balls** like footballs?

6. Identify the critical **safety checks** a facilitator must perform on playground equipment.

**Answers**

1. Health is defined as a state of complete **physical, mental, and social well-being**, not just the absence of disease. Achieving it starts with maintaining good personal hygiene.

2. Students must **bath daily after practice**, wash hands and feet after playing, change clothes frequently, cut nails regularly, and never sleep in their daily sports clothes.

3. Suppliers must **wash hands frequently**, wear clean aprons, tie back hair, and cover all cuts with waterproof bandages and gloves. They must never smoke or chew gum.

4. **High frequency** inspections check daily for trash and sanitation. **Low frequency** inspections occur quarterly, focusing on in-depth mechanical checks for wear, tear, or damage to equipment.

5. Moisten the needle and **inflate balls gradually** to correct pressures. Deflate slightly after use to prevent deformation and store them in well-ventilated areas away from sunlight.

6. Ensure equipment isn't **broken, rusted, or splintered**. Check for protruding bolts or sharp edges, keep sandpits free of debris, and designate damaged equipment as off-limits immediately.

**Long questions**

1. How does the manual **define health and hygiene**, and what is the relationship between the two?

2. What specific **food and drinking hygiene protocols** must be followed by staff during sports events?

3. Explain the differences between **High Frequency and Low Frequency inspections** for sports facilities.

4. What are the recommended procedures for **maintaining and storing sports balls** to ensure longevity?

5. What **safety checks** should a facilitator perform on playground equipment and hardware before play begins?

6. List the essential **personal hygiene and sanitation rules** students must follow after practice sessions.

---

**Long questions Answers**

1. Health represents a state of complete physical, mental, and social well-being, rather than just lacking disease. Hygiene involves cleaning oneself and surroundings to prevent disease spread. Good personal habits, like bathing daily and changing clothes, are primary steps to shielding individuals from illnesses and maintaining overall wellness.

2. Individuals supplying food must wash hands thoroughly and dry them with clean or disposable towels. Prohibited actions include smoking, chewing gum, or spitting in storage areas. Staff should wear clean aprons, tie back hair, and cover all cuts with waterproof bandages and gloves to prevent bacterial contamination.

3. High-frequency inspections occur daily or weekly, focusing on changing conditions like trash, weather damage, or sanitation issues. Conversely, low-frequency inspections are conducted quarterly or semi-annually. These are in-depth mechanical investigations performed by knowledgeable staff to identify structural wear and tear, such as rusted parts or worn-out chains.

4. Maintain balls by checking specific pressures, such as 7–9 PS for basketballs. Use a moistened needle and add air gradually to protect the inner bladder. After use, slightly deflate the balls to prevent deformation. Store them in well-ventilated areas away from direct sunlight to ensure equipment longevity.

5. Facilitators must check that equipment isn't broken, rusted, or splintered. All hardware, including bolts and S-hooks, should be secure without sharp edges that could cause injuries. Sandpits must be free of debris and covered when not in use. Damaged equipment should be designated as off-limits immediately for safety.

6. Students must maintain discipline by bathing daily after practice and washing hands, face, and feet immediately after playing. It is critical to change clothes and undergarments frequently. Additionally, students should regularly cut their nails and must never go to bed wearing their daily sports clothes.

---

## Practice Question paper: HEALTH AND HYGIENE IN PLAY AREA

SUBJECT**:** Physical Activity Trainer **(845)**

**CLASS –XII**

Total marks: 25 Time: 1 Hour

**Section A: Multiple choice Questions (1 Mark each)** **5x1=5**

1. **Why is hygiene important in the play area?**
A) To decorate the ground
B) To prevent diseases and injuries
C) To increase noise
D) To reduce players

2. **Which of the following is a healthy practice before playing?**
A) Wearing dirty clothes
B) Drinking contaminated water
C) Washing hands properly
D) Leaving injuries untreated

3. **What should be available in every play area for safety?**
A) Loud music
B) First aid kit
C) Television
D) Food stall

4. **Which habit helps maintain personal hygiene during sports activities?**
A) Sharing towels without washing
B) Wearing wet clothes for long time
C) Taking bath after play
D) Throwing waste on the ground

5. **Clean and dry play areas help to prevent:**
A) Learning
B) Injuries and infections
C) Teamwork
D) Exercise

**Section B: Short Answer Questions (2 Marks each)** **4x2=8**

6. Why is cleanliness important in a play area?

7. What is personal hygiene in sports?

8. Why is a first aid kit necessary in a play area?

9. What are the benefits of maintaining hygiene in sports?

**Section C: Long Answer Questions (4 Marks each)** **3x4=12**

10. Explain the importance of health and hygiene in the play area.

11. Describe the role of personal hygiene in sports activities.

12. How can a play area be maintained clean and safe?

---

**Answer key**

**Section A: Multiple choice Questions**

1- b 2- c 3- b 4-c 5-b

## Section B: Short Answer Questions-Answer

6. Cleanliness in a play area prevents infections, diseases, and injuries. It creates a safe and healthy environment for players and improves comfort, performance, and overall well-being during physical activities.

7. Personal hygiene in sports means keeping the body clean through bathing, wearing clean clothes, washing hands, and maintaining cleanliness to prevent infections and stay healthy during activities.8. Regular physical activity improves mental health by reducing stress, anxiety, and depression. It boosts mood, increases self-confidence, improves sleep, enhances brain function, and promotes emotional well-being through the release of endorphins.

8. A first aid kit is necessary to provide immediate treatment for injuries like cuts, sprains, or bruises, helping reduce pain and prevent serious health complications during sports.

9. Maintaining hygiene in sports prevents diseases, improves health, increases confidence, ensures safety, and creates a comfortable environment for players to participate actively in games and activities.

## Section C: Long Answer Questions-Answer

10. Health and hygiene in the play area are important for preventing diseases, infections, and injuries. Clean surroundings, proper sanitation, and safe equipment create a healthy environment for players. Good hygiene improves physical and mental well-being, increases performance, and ensures safety during sports and physical activities for all participants.

11. Personal hygiene helps players remain healthy, active, and free from infections. Habits such as bathing, washing hands, trimming nails, and wearing clean clothes maintain cleanliness. Proper hygiene prevents skin diseases, bad odor, and illness. It also improves confidence, discipline, and comfort, helping players perform better in sports activities.

12. A play area can be maintained clean and safe through regular cleaning, proper waste disposal, safe drinking water, and maintenance of sports equipment. First aid facilities and hygienic washrooms should be available. Players should follow hygiene rules and avoid littering to ensure a healthy environment for sports and physical activities.

---

## DIGITAL RESOURCES

| | |
|---|---|
| **CBSE QP 2026** | **https://cbseacademic.nic.in/skill-education-previouspapers.html** |
| **CBSE MARKING SCHEME2026** | **https://cbseacademic.nic.in/skill-education-previouspapers.html** |
| **CBSE SQP & MS 2025-26** | **https://cbseacademic.nic.in/skill-education-sqp_archive.html** |
| **PRACTICE QP** | **PAT PRACTICE QUESTION PAPER CLASS-XII** |
| **INTERACTIVE WORKSHEETS** | **PAT INTERACTIVE WORKSHEET CLASS-XII** |

