MASTER OF COMPUTER APPLICATIONS (MCA)

DEPARTMENT OF ENGLISH

24CA151- PROFESSIONAL COMMUNICATION – I

UNIT –II. Reading Comprehension

Reading Comprehension -Reading subject specific material -Technical Vocabulary- skimming – scanning – technical articles

1. Reading Subject-Specific Material

Subject-specific reading refers to studying materials related to a particular field, such as Computer Science, Data Structures, Artificial Intelligence, Database Management Systems, Networking, and Software Engineering.

Textbooks
Programming manuals
Software documentation
Research papers
Online tutorials
Technical blogs

Example

Subject: Database Management Systems (DBMS)

Text:

"Normalization is the process of organizing data in a database to reduce redundancy and improve data integrity."

Comprehension:

After reading, a student understands that normalization helps avoid duplicate data and maintains consistency in the database.

Benefits

- Deepens subject knowledge.
- Improves analytical skills.
- Helps in project development.
- Keeps students updated with new technologies.

2. Technical Vocabulary

Technical vocabulary consists of specialized terms used in computer science and information technology. Understanding these terms helps MCA students read technical documents efficiently.

Examples of Technical Vocabulary

Term	Meaning
Algorithm	A step-by-step procedure to solve a problem
Compiler	Software that converts source code into machine code
API	Application Programming Interface
Encryption	Converting data into coded form for security
Cloud Computing	Delivery of computing services over the Internet
Machine Learning	AI technique that enables computers to learn from data
Debugging	Finding and fixing errors in a program
Firewall	Security system that protects networks

Example
Sentence:
"The compiler generates machine code after checking syntax errors."
Understanding:
Compiler → translation software.
Syntax errors → mistakes in code structure.
Machine code → instructions understood by the computer.
Importance
Helps understand technical documents.
Improves coding and problem-solving skills.
Enhances communication in the IT industry.

3. Skimming
Skimming means reading quickly to get the main idea without focusing on every detail.
Students skim:
Chapter titles
Headings and subheadings
Introductions and conclusions
Keywords and highlighted terms

Example
Suppose a student reads a chapter titled:
"Introduction to Artificial Intelligence"
The student quickly reads:
Definition of AI
Types of AI
Applications of AI
Summary section
Without reading every line, the student understands that the chapter discusses AI concepts and applications.

Real-Life Example
Before attending an exam, a student skims notes on Data Structures to revise:
Arrays
Linked Lists
Stacks
Queues
Trees
Advantages
Saves time.
Provides an overview of the topic.
Helps decide what needs detailed reading.

4. Scanning
Explanation
Scanning means searching for specific information without reading the entire text.
Students scan for:
Keywords
Dates
Definitions
Formulae
Commands
Program syntax

Example

Suppose a student wants to find the syntax of a SQL query.
Instead of reading the entire chapter, the student scans and finds:
SELECT * FROM Student;
Example
In Python documentation, a student searches for the keyword:
append ()
and immediately finds its usage:
list.append(item)
Advantages
Quickly locates information.
Saves effort and time.
Useful during exams and programming tasks.

5. Reading Technical Articles

Technical articles provide information about emerging technologies, programming techniques, software tools, and research developments.

Students may read articles on:
Artificial Intelligence

Cloud Computing

Cybersecurity
Blockchain
Data Science
Machine Learning

Example Technical Article

Title: "Applications of Artificial Intelligence in Healthcare"

Content:
Artificial Intelligence helps doctors diagnose diseases, analyze medical images, and predict patient outcomes.
Comprehension Questions
What is the article about?
AI applications in healthcare.
How does AI help doctors?
By diagnosing diseases and analyzing medical images.
What is one benefit of AI?
Better prediction of patient outcomes.
Example from Cybersecurity

Text:
"Multi-factor authentication improves security by requiring users to verify their identity through multiple methods."

Understanding:
MFA enhances security because users must provide more than one verification factor.

Difference Between Skimming and Scanning

Feature	Skimming	Scanning
Purpose	Get the main idea	Find specific information
Reading Speed	Fast	Very fast
Focus	General understanding	Particular details
Example	Reading chapter headings	Finding SQL syntax
Use	Revision and overview	Searching commands or definitions

Practical Scenario for Students
Suppose a student is assigned a mini-project on Machine Learning.

1: Skimming

The student quickly reads several articles and notes important headings:
Introduction
Algorithms
Applications

2: Scanning

The student searches specifically for:
Python libraries
Accuracy formula
Example datasets

3: Understanding Technical Vocabulary

Terms like:
Neural Network
Classification
Regression
TensorFlow
are learned and understood.

4**: Reading Subject-Specific Material**

The student studies textbooks and documentation related to Machine Learning.

Conclusion

Effective reading comprehension helps students acquire technical knowledge and stay updated with modern technologies.

Key Components
Reading Subject-Specific Material: Builds domain expertise.
Technical Vocabulary: Improves understanding of computer science terms.
Skimming: Helps grasp the main idea quickly.
Scanning: Helps locate specific information efficiently.
Reading Technical Articles: Keeps students informed about emerging technologies.