Rajiv Gandhi Govt. College Saha (AMBALA)

(Affiliated to Kurukshetra University, Kurukshetra)

('B+' Grade, NAAC Accrediated)

|| तमसो मा ज्योतिर्गमय ||

"अंधेरे से मुझे प्रकाश की ओर ले चलो"

"From darkness, Lead me to Light"

Course File (Scheme, Syllabus and Lesson Plan)

Basics of Computer Science (CC-M1)

(B23-CSE-103)

According to

Curriculum Framework for Under-Graduate Programmes

As per NEP-2020 (Multiple Entry-Exit, Internships and Choice Based Credit System)

DEPARTMENT OF COMPUTER SCIENCE & APPLICATIONS

(For the Batches Admitted from 2023-2024)

Aug-Nov 2025
Basics of Computer Science

Name of the Teacher: Dr. Rajeev Goel

Class: BSc.-I
Session: July-Nov 2025
Internal Marks: 15(10(T) +5(P))

Subject: Basics of Com Sc.
Semester:1st Sem
External Marks: 35(20(T)+15(P))

Part A Introduction			
Subject	COMPUTER SCIENCE		
Semester	I		
Name of the Course	Basics of Computer Science		
Course Code	B23-CSE-103 (CommonwithB23-CAC-103)		
Course Type:(CC/MCC/MDC/CCM/DSEC/VOC/DSE/PC/AEC/VAC)	CC-M1		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (if any)	NA		
Course Objectives	The course will aim: 1. Introduce the fundamentals of computers, including their evolution, classification, and architecture. 2. Familiarize students with different types of software and programming languages. 3. Explain the basic concepts and functionality of operating systems, especially Windows. 4. Introduce the fundamentals of computer networking and internet technologies. 5. Provide hands-on understanding of managing files, folders, and using basic system utilities.		
Course Learning Outcomes(CLO)	**CLO1:** Describe the fundamental concepts of computers, including their types, history, and architecture. **CLO2:** Identify different types of software and understand the role of programming languages, compilers, and interpreters. **CLO3:** Explain the types, features, and functions of operating systems with hands-on familiarity with Windows OS. **CLO4:** Perform basic file and folder operations within a GUI-based operating system like Windows. **CLO5:** Understand the basic concepts of computer networking, data transmission media, and types of networks (LAN, MAN, WAN). **CLO6:** Explain the basic functioning of the Internet, World Wide Web, and demonstrate the use of web browsers.		
Credits	Theory	Practical	Total
	1	1	2
Contact Hours	1	2	3
Max. Marks: 50(30(T)+20(P)) **Internal Assessment Marks:** 15(10(T)+5(P)) **End Term Exam Marks**: 35(20(T)+15(P))		**Time: 3Hrs.(T), 3Hrs.(P)**	

Dr. Rajeev Goel

Principal
Rajiv Gandhi Govt. College
Saha(Ambala)

Principal

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Part B-Contents of the Course

Instructions for Paper-Setter

Examiner will set a total of nine questions. Out of which first question will be compulsory. Remaining eight questions will be set from four unit selecting two questions from each unit. Examination will be of three-hour duration. All questions will carry equal marks. First question will comprise of short answer type questions covering entire syllabus. Candidate will have to attempt five questions in all, selecting one question from each unit. First question will be compulsory.

Practicum will be evaluated by an external and an internal examiner. Examination will be of three- hour duration.

Unit	Topics	Contact Hours
I	Introduction to Computers: Definition of Computers, History and Generations of Computers, Characteristics of computer, Classification of Computers. Fundamental Block diagram of Computer: CPU, Input & Output Unit.	4
II	Software: Definition of Software, Types of Software-System software, Application software and Utility software. Types of Computer Languages, Assemblers, Interpreters, Compiler.	4
III	Introduction to Operating Systems: Types of Operating System, Functions of Operating System. Windows: Introduction to Windows, Starting Windows, Desk Top, Task Bar, Opening and closing applications, icons- creating, renaming and removing. Date and Time setting, Working with files and folders-creating, deleting, opening, finding, copying, moving, and renaming.	4
IV	Networking: Concept, Basic Elements of a Communication System, Data Transmission Media, LAN, MAN, WAN. Introduction of Internet and WWW, Basic working of a Web Browser, Introduction to popular web browsers.	4
V*	Practicum: Students are advised to do laboratory/practical practice not limited to, but including the following types of problems: • Dismantling the system unit, recognize all major components inside a PC, describe function of each component and define the relationship of internal components • Explore and describe some system utility like regedit, memory portioning, control panel, window tools. • Understanding control panel • Date and Time setting. • Working with files and folders-creating, deleting, opening, finding, copying, moving,and renaming.	25

Suggested Evaluation Methods

Theory: • Class Participation: 4 • Seminar/presentation/assignment/quiz/class test etc.: NA • Mid-Term Exam: 6	**End Term Examination:** A three hour exam for both theory and practicum.
Practicum: • Class Participation: NA • Seminar/Demonstration/Viva-voce/Lab records etc.: 5 • Mid-Term Exam: NA	

Part C Learning Resources

Recommended Books /e-resources/LMS:

- Fundamentals of Computers, V.Rajaraman 6th edition PHI Learning Private Limited 2014
- Peter Norton: Computing Fundamentals.6th Edition, McGraw Hill-Osborne,2007
- Alexis Leonand Marthews Leon: Introduction to Computers, Leon Vikas, 1999.
- Internet Basics .E. Douglas Commer PHI

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Lesson Plan
Basics of Computer Science

Month	Week	Topic	Remarks
Aug 2025	1	Introduction to Computers: Definition of Computers, History and Generations of Computers	
	2	Characteristics of computer, Classification of Computers	
	3	Fundamental Block diagram of Computer: CPU, Input & Output Unit.	https://www.youtube.com/watch?v=5VyeHnM9kCw&list=PLI5-Z8OApDjjnkxEeTVdhIPjGy655Vubf&index=4
	4	Software: Definition of Software, Types of Software: System software, Application software and Utility software	**Class Test**
Sep-2025	1	Types of Computer Languages,	
	2	Assemblers, Interpreters, Compiler	
	3	Introduction to Operating Systems: Types of Operating System	
	4	Functions of Operating System	**Class Test**
Oct-2025	1	Windows: Introduction to Windows, Starting Windows, Desk Top, Task Bar	
	2	Opening and closing applications, icons- creating, renaming and removing, Date and Time setting, Working with files	**Mid-Term Exams**
	3	**Diwali Vacations**	
	4	Folders-creating, deleting, opening, finding, copying, moving, and renaming	
Nov-2025	1	Networking: Concept, Basic Elements of a Communication System, Data Transmission Media	**https://www.youtube.com/watch?v=WuQKlGaa9Bg**
	2	LAN, MAN, WAN, Introduction of Internet and WWW,	
	3	Basic working of a Web Browser, Introduction to popular web browsers	**Class Test**
	4	**University Exams**	

Assignment-I
Q1. Define computer and explain its fundamental block diagram.
Q2. Differentiate between system software, utility software and application software.
Q3. Explain various types of computer languages.
Q4. Define assembler, interpreter and compiler.

Assignment-II
Q1. What is operating system? Explain its various functions.
Q2. Explain various elements of communication system.
Q3. Explain LAN, MAN and WAN.
Q4. Explain basic working of a web browser.

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