BUDDHA INSTITUTE OF MANAGEMENT

DEPARTMENT OF COMPUTER APPLICATION

ACADEMIC YEAR 2025-26 (ODD Semester)

LESSON PLAN

Semester: I	Section: C	Course Code: BBC101	Contact Hours /week: **6**
Course name: Fundamentals of Computer			# of credits: 4
Teacher's name:**Mr. Vishal Srivastava**			Designation: AP
Sessional Marks: 30		End Semester Examination Marks: 70	University Exam Hours: 3

Prerequisites if any:
NA

Content delivery methods:	By Face to face delivery, Presentation, Tutorial etc.

COURSE SYLLABUS (as prescribed by University / Board)

Module No	UNIT Contents	Hours	COs
I	**Computer:** Introduction, Characteristics, Limitations, Generations and Classification. **Hardware:** Introduction, Input devices - keyboard, MICR, OMR, bar code reader etc., Output devices -visual display unit, printers, plotters etc. **Software:** Introduction, Types – system and application.	**13**	**CO1**
II	**Memory Unit:** Introduction, Hierarchy, Primary Memory, Secondary memory, Cache memory, Virtual memory. **Secondary Storage Devices**: Introduction, Magnetic disk, Magnetic tape, Optical disks, Flash memory etc. **Computer Languages:** Introduction, Compiler, Interpreter and Assembler.	**14**	**CO2**
III	**Computer Codes:** Introduction, Binary, Decimal, Octal, Hexadecimal, 4-bit BCD, 8-bit BCD, ASCII codes. **Conversion of Numbers:** Binary to decimal, Decimal to binary, Binary to octal, Octal to binary, Binary to hexadecimal, etc. **Binary Arithmetic:** Addition, Subtraction, Multiplication, Division. Complements of binary numbers.	**13**	**CO3**
IV	**Operating System**: Definition, Functions, Types, Classification, Introduction of command based and GUI based operating system. **Windows Operating System:** Introduction, Elements, Use of menus, Tools and Commands **Computer Networks**- Introduction, Types - LAN, WAN and MAN, Topologies, Data communication	**19**	**CO4**
V	**Internet:** Overview, Architecture, History, Functioning, Applications. **Basic Services of Internet:** WWW, Email, FTP, Telnet, Gopher, Search engines, News group, Chat rooms, etc. **Multimedia:** Overview, Components, Software tools, Applications, Transition from conventional media to digital media.graphics, Library functions used in drawing, Drawing and filling images, GUI interaction within the program.	**12**	**CO5**

COURSE OUTCOMES: At the end of the Course, the Student will be able to:

CO1	Understand the basics of computer system and its functional units.
CO2	Examine memory hierarchy, cache memory and CPU memory interaction.
CO3	Analyze different number systems and apply computer arithmetic
CO4	Understand the concepts of operating systems and computer networks.
CO5	Understand the basics of internet and multimedia.

Mapping of CO v/s PO:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	1	1	1	1	1	1	1	-	1	1	1	1
CO2	1	1	1	2	1	-	-	-	1	1	1	1
CO3	2	2	1	2	1	-	-	-	-	-	1	1
CO4	2	1	1	1	1	1	-	-	-	-	1	1
CO5	1	1	1	2	1	-	-	-	1	1	1	1
Average	1.4	1.2	1.0	1.6	1.0	0.4	0.2	-	0.6	0.6	1.2	1.4

	PSO1	PSO2	PSO3
CO1	2	1	1
CO2	2	1	1
CO3	2	1	1
CO4	2	1	1
CO5	2	1	1
Average	2	1	1

Correlation levels: 1-Slight (Low) 2-Moderate (Medium) 3-Substantial (High)

Gap in the syllabus	N/A

Topics to be covered beyond syllabus	N/A

LESSON PLAN

Lecture	Module	Scheduled				Conducted			
		Topic	*RBT Levels	C O Mapping	Date	Topic	Date	No. Of Students	Faculty Sign
1	I	Computer: Introduction and History of Computer	L2	CO1					
2		Characteristics of computer	L2						
3		Limitations of computer	L2						
4		Generations of computer	L2						
5		Classification of computer	L2						
6		Classification of computer	L2						
7		**Tutorial 1**							
8		Hardware: Introduction	L2						
9		Input devices - keyboard, MICR, OMR, bar code reader etc.	L2						
10		Output devices- visual display unit, printers, plotters etc	L2						
11		Software: Introduction	L2						
12		Types of Software – system and application.	L2						
13		**TUTORIAL 2**							
14	II	Memory Unit: Introduction	L2	CO2					
15		Hierarchy of Computer Memory	L2						
16		Types of Computer Memory	L2						
17		Primary Memory, Secondary memory , Register	L2						
18		Cache memory	L2						

19		Virtual memory	L3						
20		**TUTORIAL 3**							
21		Secondary Storage Devices: Introduction, Magnetic disk	L3						
22		Magnetic tape, Optical disks, Flash memory etc.	L3						
23		Computer Languages:Introduction	L2						
24		Types of Computer Languages	L3						
25		Language Processors	L2						
26		Compiler, Interpreter and Assembler.	L2						
27		**TUTORIAL 4**							
28	**III**	Computer Codes: Introduction	L3	**CO3**					
29		Binary Number System	L3						
30		Decimal, Octal, Hexadecimal Number Systems	L3						
31		4-bit BCD, 8-bit BCD	L2						
32		ASCII codes.	L2						
33		**TUTORIAL 5**							
34		Conversion of Numbers	L2						
35		Binary to decimal, Decimal to binary	L2						
36		Revision	L2						
37		Binary to octal, Octal to binary	L2						
38		Binary to Hexadecimal, Hexadecimal to Binary	L2						
39		Shortcut conversion methods	L3						
40		**TUTORIAL 6**							

41		Operating System: Definition	L3						
42		Revision	L2						
43		Functions of OS	L3						
44		Types of OS	L2						
45		Classification of OS	L3						
46		Introduction of command based and GUI based operating system	L2						
47		Windows Operating System: Introduction	L2						
48		Elements of Windows OS, Use of menus Windows OS	L3						
49	**IV**	**TUTORIAL 7**							
50		Tools and Commands Windows OS	L2	**CO4**					
51		Computer Networks-Introduction	L3						
52		Types - LAN, WAN and MAN	L3						
53		Topologies	L3						
54		Revision	L3						
55		Types of Topologies	L3						
56		Data communication	L3						
57		Types of Data communication	L2						
58		Revision	L3						
59		**TUTORIAL 8**							
60		Internet: Overview, Architecture Of Internet	L3						
61		History Of Internet	L3						

62		Functioning, Applications Of Internet	L3						
63		Basic Services of Internet: WWW	L2						
64		Email, FTP, Telnet, Gopher	L3						
65		**TUTORIAL 9**							
66		Search engines, News group, Chat rooms, etc.	L2						
67		Multimedia: Overview	L2						
68		Components of Multimedia, Software tools	L3						
69		Applications of Multimedia	L2						
70		Transition from conventional media to digital media	L2						
71		**TUTORIAL 10**							
72		Revision							
73		Revision							
74		Revision							
75		Revision							

Class Test	**Syllabus**
CT-01	**CLASS 1 TO 27**
CT-02	**CLASS 28 TO 59**
PRE-AKTU	**CLASS 60 TO 71**

***Revised Bloom's Taxonomy (RBT) Levels:**
L1 – Remembering; L2 – Understanding; L3 – Applying; L4 – Analysing; L5 – Evaluating; L6 - Creating

Reference Books:(As per University / Board syllabus)

1. Sinha P.K. and Sinha P., "Computer Fundamentals", BPB Publications.

2. Balagurusamy E., "Fundamentals of Computers", Tata McGraw Hill.

3. Rajaraman V., "Fundamentals of Computers", PHI. BACHELOR OF COMPUTER APPLICATIONS (Three Year Course) BCA Ist Year 2024-25

4. Leon A. and Leon M., "Introduction to Computers", Vikas Publishing House.

5. Norton P., "Introduction to Computers", McGraw Hill Education.

6. Goel A., "Computer Fundamentals", Pearson.

7. Li Z.N. and Drew M.S., "Fundamentals of Multimedia", Pearson Education..

Faculty Sign **HOD's sign**