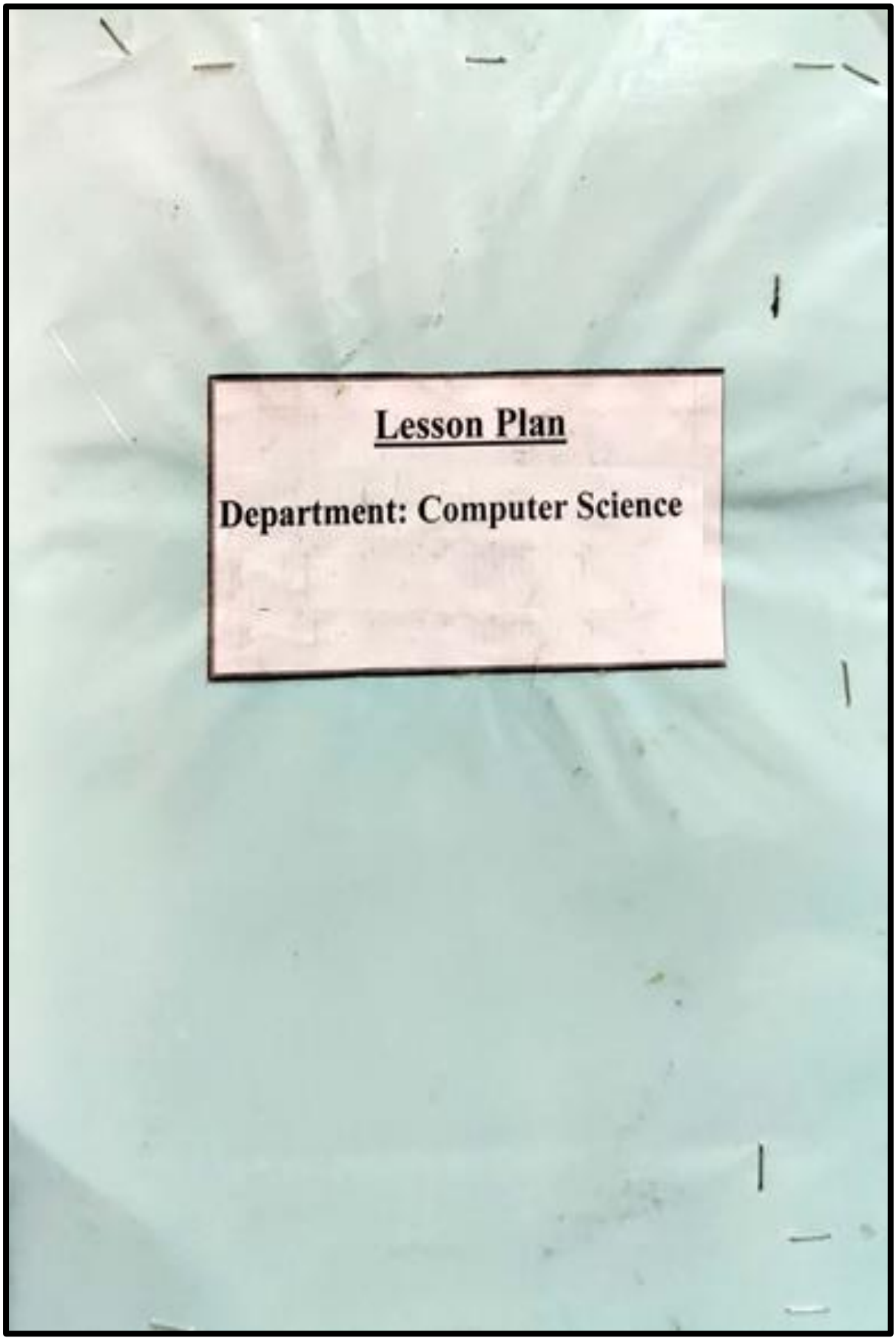
Lesson Plan
Department: Computer Science

BCA Semester I Computer Fundamentals I 2016-17

Month		Topics Covered	Other Activities
July		Introduction to Computer: Definition, Diagram, Characteristics, Classification of Computers: Analog Computers, Digital Computers, Hybrid Computers, Classifications of computer on the basis of size and speed, different type of computers, Generation of computers.	Assignment
August		Applications of Computer: Desktop publishing, design and manufacturing, military, robotics, planning and management, marketing, communications, education. Input Devices: keyboard, mouse, track ball	Class Test
September		touch pad, joystick, touch sensitive screens, pen based systems, digitizer, data scanning devices, optical recognition systems, bar code readers, optical mark readers, Optical character reader, optical scanners: drum scanners, hand scanner, flatbed scanner, web camera, game pad, digital camera.	Assignment
October		Output Devices: Hard copy devices: Printer (impact printers) daisy wheel, dot matrix printer, line printer, chain printers, comb printers, (non-impact printers) DeskJet, inkjet, laser printer, thermal transfer printer, barcode printers	Project

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VCA Semester I Computer Fundamentals I 2016-17

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July		Introduction to Computer: Definition, Diagram, Characteristics, Classification of Computers: Analog Computers, Digital Computers, Hybrid Computers, Classifications of computer on the basis of size and speed, different type of computers, Generation of computers.	Assignment
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M.Sc. Computer Science (Previous)

(05th Aug -16th October) MSC – 107

Subject: Computer Architecture 2016-17

Month	No. Of Lectures	Areas covered	Other Activities
August	11	Number system, Logic Gates, Boolean Algebra, K-Map, combinational circuit, flip-flop, sequential circuit, encoder, decoder, multiplexer, shift register, fixed-point representation, floating-point representation.	Assignment
September	15	Register transfer language, inter-register transfer, arithmetic micro operation, logic and shift micro operation, instruction codes, timing and control, input/output and interrupts. Processor bus organization, arithmetic logic unit, stack organization. . instruction format, addressing mode, data transfer and manipulation, program control, control memory	Test
October	14	addressing sequence, micro program sequencer, micro instruction formats. , addressing modes, memory hierarchy, associative memory, memory addressing, virtual memory, cache memory, cache coherence. Block diagram of 8085 and pin configuration, 8086/8088 instruction set	Sessionals
November	04	Data transfer instructions, arithmetic, logical, shift, rotate, flag, compare, jump instruction, subroutine, loop.	Assignment

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Reference Books:

1. Computer Architecture and Organization, Hayes, Tata McGraw Hill
2. Computer System Architecture, M. Morris Mano, PHI

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BCA Semester II Computer Fundamentals II 2016-17

Month		Topics Covered	Other Activities
December		Introduction to memory, classifications	Assignment
January		random-access memory, volatile memory, non-volatile memory, flash memory, read-only memory, secondary memory, the cache memory, auxiliary storage memory, memory hierarchy, storage device, magnetic tape, magnetic disk, floppy disk, hard disks, CD, DVD. Number system: binary, octal, hexadecimal	Class Test
February		addition, subtraction, multiplications. Computer code: BCD, ASCII, EBCDIC code, logic gates and Boolean algebra representation. Software: System software, application software, utility software	Assignment
March		Computer Viruses: Introduction, history, types of computer viruses, classification of viruses, symptoms of a computer virus, & ways to catch a computer virus. Introduction of Internet, world wide web, how the web works, web standards, website, overview, types of websites, electronic mail, e-mail header, messages and mailboxes	Project

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VCA Semester II Computer Fundamentals II 2016-17

Month		Topics Covered	Other Activities
December		Introduction to memory, classifications	Assignment
January		random-access memory, volatile memory, non-volatile memory, flash memory, read-only memory, secondary memory, the cache memory, auxiliary storage memory, memory hierarchy, storage device, magnetic tape, magnetic disk, floppy disk, hard disks, CD, DVD. Number system: binary, octal, hexadecimal	Class Test
February		addition, subtraction, multiplications. Computer code: BCD, ASCII, EBCDIC code, logic gates and Boolean algebra representation. Software: System software, application software, utility software	Assignment
March		Computer Viruses: Introduction, history, types of computer viruses, classification of viruses, symptoms of a computer virus, & ways to catch a computer virus. Introduction of Internet, world wide web, how the web works, web standards, website, overview, types of websites, electronic mail, e-mail header, messages and mailboxes	Project

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MSC COMPUTER SCIENCE (PREVIOUS) 2016-17

Subject: Compilers MSC - 201

Month	No. Of Lectures	Areas covered	Other Activities
December	14	Introduction to compiler, stages, phases, passes, difference between interpreter and compilers ,grammar, regular and context-free languages, structure of compiler role of the lexical analyzer, design of lexical analyzers,	Assignment
January	18	regular expressions, parse tree Parsers, loaders and linkers	Test
February	16	top-down parsing, LL(1) grammar, recursive descent, bottom-up parsing shift reduce, operators, pre-cascade,	Assignment
March	10	LR parser, parse table, constructing SLR parsing table. Revision	Sessional

Reference Books:

1. Principles of Compiler design, Alfred V Aho & Jeffrey D Ullman, Addison Wesley.
2. System programming, Donovan
3. The Essence of Compilers, Robin Hunter, Pearson Education (LPE)

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