Dr. Pooja Singh
Asstt. Professor, Computer Science Deptt.

For BCA-2nd Semester
SUBJECT: LOGICAL ORGANIZATION OF COMPUTER-II
PAPER CODE: BCA-107

JANUARY

Sequential Logic: Characteristics, Flip-Flops, Clocked RS, D type, JK, T type and Master-Slave flip-flops. State table, state diagram and state equations. Flip-flop excitation tables.

FEBRUARY

Sequential Circuits: Designing registers – Serial Input Serial Output (SISO), Serial Input Parallel Output (SIPO), Parallel Input Serial Output (PISO), Parallel Input Parallel Output (PIPO) and shift registers. Designing counters – Asynchronous and Synchronous Binary Counters, Modulo-N Counters and Up-Down Counters.

MARCH

Memory & I/O Devices: Memory Parameters, Semiconductor RAM, ROM, Magnetic and Optical Storage devices, Flash memory, I/O Devices and their controllers. Instruction Design & I/O Organization: Machine instruction, Instruction set selection, Instruction cycle, Instruction Format and Addressing Modes. I/O Interface, Interrupt structure, Test.

APRIL

Program-controlled, Interrupt-controlled & DMA transfer, I/O Channels, IOP, Revision, Test.

For BCA 4th Semester
SUBJECT: Software Engineering
PAPER CODE: BCA-209

JANUARY

Introduction: Software Crisis, Software Processes & Characteristics, Software life cycle models, Waterfall, Prototype, Evolutionary and Spiral Models.

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FEBRUARY

Software Requirements Analysis & Specifications: Requirement engineering, requirement elicitation techniques like FAST, QFD, requirements analysis using DFD, Data dictionaries & ER Diagrams, Requirements documentation, Nature of SRS, Characteristics & organization of SRS.
Software Project Management Concepts: The Management spectrum, The People The Problem, The Process, The Project.
Software Project Planning: Size Estimation like lines of Code & Function Count, Cost Estimation Models, COCOMO, Risk Management.

MARCH

Software Design: Cohesion & Coupling, Classification of Cohesiveness & Coupling, Function Oriented Design, Object Oriented Design, Software Metrics: Software measurements: What & Why, Token Count, Halstead Software Science Measures, Design Metrics, Data Structure Metrics.
Software Implementation: Relationship between design and implementation, Implementation issues and programming support environment, Coding the procedural design, Good coding style.
Software Testing: Testing Process, Design of Test Cases, Types of Testing, Functional Testing, Structural Testing, Test Activities, Unit Testing, Integration Testing and System Testing, Debugging Activities. Test.

APRIL

Software Maintenance: Management of Maintenance, Maintenance Process, Reverse Engineering, Software Re-engineering, Configuration Management, Documentation. Revision, Test.

For BBA 6TH Semester
SUBJECT: E-COMMERCE
PAPER CODE: BBAN-605

JANUARY

Introduction – meaning, nature, concepts, advantages and reasons for transacting online, categories of e-commerce; planning online business: nature and dynamics of the internet, pure online vs. brick and click business, assessing requirement for an online business, designing, developing and deploying the system, one to one enterprise.

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FEBRUARY

Technology for online business – internet, IT infrastructure; middleware contents: text and integrating e-business applications; mechanism of making payment through internet: online payment mechanism, electronic payment systems, payment gateways, visitors to website, tools for promoting website; plastic money: debit card, credit card; laws relating to online transactions.

MARCH

Applications in e-commerce – e-commerce applications in manufacturing, wholesale, retail and service sector.
Virtual existence – concepts, working, advantages and pitfalls of virtual organizations, workface, work zone and workspace and staff less organization; designing on E-commerce model for a middle level organization: the conceptual design, giving description of its transaction handling, infrastructure and resources required and system flow chart.

APRIL

security in e-commerce: digital signatures, network security, data encryption secret keys, data encryption, Revision, Test.

Practical Labs

BBA 6th sem: HTML AND WEBSITE DESIGN.

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