Govt. Shivalik College Naya Nangal

Teaching Plan(2024-25) **Class: BCA-II(sem3)**

Subject: Computer Applications **Paper: CSA**

Name: POOJADADWAL

Sr.No.	Dates	Topics
1.	**01-05August**	Computer System Organisation: CPUOrganisation.
2.	**07-12August**	Instruction Execution(instruction cycle, types of instructions), RISC v/s CISC.
3.	**14-19August**	Design Principles for Modern Computers, Instruction level parallelism.
4.	**21-26August**	Processor level parallelism.
5.	**28Aug–03 September**	Primary memory: Memory addresses, Error-correcting codes,Cache memory
6.	**05-11 September**	Instruction Set Architecture: Instruction formats, Expanding opcodes , types of addressing modes, data transfer and manipulation instructions, Program control.
7.	**12-17 September**	(status-bit conditions ,conditional branch instructions, program interrupt, types of interrupt)
8.	**19-24 September**	Register Transfer Language: Register Transfer,Busandmemorytransfer, Arithmetic Micro operations word, control memory (concepts only) Asynchronous Data transfer (strobe control, handshaking), modes of transfer (programmed I/O, interrupt-initiated I/O, software considerations),Direct memory access.
9.	**26Sep-01 October**	Logicmicro-operations,Shiftmicro-operations,Arithmeticlogicsiftunit Micro-programmed control,controlword
10.	**02-07October**	Input-output Organisation-:I/O interfaces(I/Obusandinterface modules, I/O versus memory bus.
11.	**09-14 October**	REVISION: Asynchronous Data transfer(strobe control, handshaking).
12.	**16-22October**	Class test: Instruction Set Architecture : Instruction formats,Expanding opcodes
13.	**24-31October**	Isolated versus memory-mapped I/O).
14.	**2Nov-7Nov.**	Revision: Register Transfer Language: Register Transfer, Bus and memory transfer, Arithmetic Micro operations word
15.	**16-21 November**	Revision: Mode of transfer(programmed I/O,interrupt-initiated I/O, Software considerations), Direct memory access.
16.	**23November -03 December**	MST Exams

Govt. Shivalik College Naya Nangal

Teaching Plan(2024-25) **Class: BCA-III(sem-5)**

Subject: Computer Applications **Paper: SAD**

Name :Pooja Dadwal

Sr.No.	Dates	Topics
1.	01-05August	Systems concepts: Definition and characteristics of a system,Elements of a system,
2.	07-12August	Types of systems. The system development life cycle:Introductionto Various phases.
3.	14-19August	The role of the Systems Analyst :Qualifications of a systems analyst, Various roles of the systems analyst.
4.	21-26August	Systemsanalysis:Initialinvestigation,needsidentification,determining The user's information requirements.
5.	28Aug–03 September	Information-gathering tools
6.	05-11 September	Structured analysis tools: Dataflow diagram, Data dictionary, Decision tree , Software maintenance: maintenance or enhancement, Primary Activities
7.	12-17 September	Structured English, Decision tables.
8.	19-24 September	Feasibility study: Feasibility considerations, Steps in Feasibility analysis.
9.	26Sep-01 October	Database design. Implementation and software maintenance: Conversion,
10.	02-07October	Input/output and forms design, Post-implementation review.
11.	09-14 October	Systems Design: The process and stages of systems design.
12.	16-22October	Hardware and software selection: Procedure and major phases in selection.
13.	24-31October	Revision: The role of the System Analyst: Qualifications of a systems analyst, various roles of the system analyst
14.	2Nov-7Nov.	Class test: Software maintenance: maintenance or enhancement
15.	16-21 November	Revision :Structured analysis tools: Dataflow diagram, Data dictionary, Decision Tree.
16.	23November -03December	MST Exams

Govt.ShivalikCollegeNayaNangal

TeachingPlan(2024-25) **Class:PGDCA-I(sem1)**

Subject: Compute Applications **Paper: Windows operating system and office Automation**

Name: Pooja Dadwal

Sr.No.	Dates	Topics
1.	**01-05 September**	WINDOWS and its installation, system Graphics interface :benefits, screen attributes
2.	**07-12 September**	Mouse vs keyboard, features and accessories, folder and file management
3.	**14-19 September**	Managing folders, component of windows
4.	**21-26 September**	Control panel: customizing screen, Screen colors, patterns
5.	**28 September –03October**	System properties ,and device management, maintaining and Optimization techniques for disks.
6.	**05-10 October**	Introduction to ms word
7.	**12-17October**	Introduction to excel.
8.	**19-24October**	Page setup and actions, encrypting and decrypting folders.
9.	**26-31October**	Introduction to ms power-point.
10.	**02-07 November**	Class test: Windows operating system: history, hardware requiremnets,
11.	**09-14 November**	Ms-outlook, organizing messages
12.	**16-21 November**	Building animation effects
13.	**23November -03December**	MST Exams

Govt.ShivalikCollegeNayaNangal

Teaching Plan(2024-25) **Class: PGDCA-I(sem1)**

Subject: Compute Applications Automation **Paper: Windows operating system and office**

Name: Pooja Dadwal

Sr.No.	Dates	Topics
1.	**01-05 September**	Windows and its installation, system Graphics interface: benefits, screen attributes
2.	**07-12 September**	Mouse vs keyboard, features and accessories, folder and file management
3.	**14-19 September**	Managing folders, component of windows
4.	**21-26 September**	Control panel: customizing screen, Screen colors, patterns
5.	**28 September –03October**	System properties ,and device management, maintaining and Optimization techniques for disks.
6.	**05-10 October**	Introduction to ms word
7.	**12-17October**	Introduction to excel.
8.	**19-24October**	Page setup and actions, encrypting and decrypting folders.
9.	**26-31October**	Introduction to ms power point.
10.	**02-07 November**	Class test: Windows operating system: history ,hardware requirements,
11.	**09-14 November**	Ms-outlook ,organizing messages
12.	**16-21 November**	Building animation effects
13.	**23November -03December**	MST Exams

Govt.ShivalikCollegeNayaNangal

Teaching Plan(2024-25) **Class: BCA-II(sem4)**

Subject: Computer Applications **Paper: MIS**

Name: Pooja Dadwal

Sr.No.	Dates	Topics
1.	01-06February	Management Information system: meaning and definition.
2.	08-13February	Role of Information system, Nature and Scope of MIS.
3.	15-20February	Information and system concepts: definition and types of information
4.	22-27 February	Information quality, Dimensions of Information, value of information system. General model of human as an information processor.
5.	01–06March	System related concepts, elements of a system and types of system. Role and importance of Management: Introduction, levels & functions of management.
6.	08-13March	Structure and classifications of MIS, Framework for understanding MIS: Robert Anthony's hierarchy of management activity, Information requirements
7.	15-20March	Decision making concepts, types of decisions, methods of choosing among alternatives, Role of MIS in decision making.
8.	22-27March	Simon's model of decision making, Structured and Unstructured decisions. Class test-1
9.	29 March–03 April	Stages of development of MIS, System Development approaches: Waterfall model,, prototyping , Iterative enhancement model, Spiral model.
10.	05-10April	Marketing MIS, Financial MIS, Production MIS, personnel MIS Class test-2
11.	12-17April	Definition and characteristics of Decion Support system. MIS versus DSS
12.	19-24April	Tools and Models for decision support.
13.	26 April-04MAY	MST Exams

Govt.ShivalikCollegeNayaNangal

Teaching Plan (2024-25) **Class: BCA-II(sem4)**

Subject: Computer Applications **Paper: RDBMS**

Name: Pooja Dadwal

Sr.No.	Dates	Topics
1.	**01-06February**	Introduction to RDBMS Product and their Features, Difference between DBMS and RDBMS
2.	**08-13February**	Relationship among application programs, RDBMS, Basic FileOperations: Opening Files, Closing Files, Reading and Writing, Seeking
3.	**15-20February**	FileOrganization:FieldandRecordstructureinfile,RecordTypes,Types Of file organization, Sequential, Indexed ,and Hashed.
4.	**22-27 February**	Transaction Management: Transaction Concept, Properties, Transaction States, Concurrent execution.
5.	**01–06March**	Serializability,ConflictSerializability,ViewSerializability,Recoverability, Recoverable Schedule, Cascade less Schedule Concurrency Control: Lock Based Protocol,
6.	**08-13March**	Locks, Granting of Locks, Two Phase Locking protocol Time stamp Based Protocol, Time stamp ,Time stamp ordering protocol, Thomas's Write rule
7.	**15-20March**	Validation Based Protocol, Deadlock Handling, Deadlock Prevention, Deadlock Detection, Deadlock Recovery
8.	**22-27March**	Recovery System: Failure Classification, Transaction Failure ,System Crash, Disk Failure, Storage Structures, Storage Types, Data Access, Recovery & Atomicity, Log based Recovery.
9.	**29March–03 April**	Deferred Database Modification, Immediate Database Modification, Checkpoints, Recovery with Concurrent Transaction, Transaction Rollback, Restart Recovery, Remote Backup System Relational Query Language: DDL, DML, DCL. Introduction to Oracle: Oracle as client/server architecture, getting started, creating, modifying
10.	**05-10April**	Dropping databases. Inserting, updating, deleting data from databases, SELECT statement, Data constraints (Null values, Default values, primary, unique and foreign key concepts) Computing expressions, Renaming columns, logical operators, range searching, pattern matching,
11.	**12-17April**	Oracle functions, grouping data from tables in SQL, manipulating dates.
12.	**19-24April**	Working with SQL: triggers, use of data base triggers, database triggers Vs.SQL*forms, types of triggers, how to apply database triggers,BEFORE vs. AFTER triggers, combinations, syntax for creating and dropping triggers
13.	**26 April-04MAY**	MST Exams

Govt.ShivalikCollegeNayaNangal

TeachingPlan(2024-25) **Class:BCAIII(sem6)**

Subject: Computer Science **Paper:SoftwareEngg.**

Name: PoojaDadwal

Sr.No.	Dates	Topics
1.	**01-06February**	Introduction–The Problem Domain, Software Engg. Challenges, Software Engg. Approach
2.	**08-13February**	Software development life cycle, its phases, Software development Process models
3.	**15-20February**	Waterfall,Prototyping,Iterative;SoftwareProcess-Characteristicsof Software process,,
4.	**22-27 February**	Project management process, Software configuration management process.
5.	**01–06March**	ProjectPlanning–activities,COCOMOmodel.Classtest-1
6.	**08-13March**	Software Metrics–Definition, Importance, Categories of metrics. Software Quality–Attributes, Cyclomatic complexity metric
7.	**15-20March**	Software Requirements Analysis – Need for SRS, Data flow diagrams, Data Dictionary, entity relationship diagram, Characteristics and components of SRS, validation, metrics SECTION-B Software Design – Designprinciples,Module-levelconcepts,StructureChartandStructured Design methodology
8.	**22-27March**	Verification, metrics: network metrics, information flow metrics. Coding –ProgrammingPrinciplesandGuidelines,Verification-codeinspections, static analysis. Software Testing – testing fundamentals, Black Box Testing: Equivalence class
9.	**29March–03 April**	Test partitioning, Boundary value analysis, cause-effect graphing; White Box Testing: Control flow and Data flow based testing, mutation testing; levels of testing, test plan, test case ting – testing fundamentals, ClassTest1:BlackBoxTesting:Equivalenceclass
10.	**05-10April**	Specification, test case execution and analysis, Software maintenance– Categories of maintenance. Software Reliability – Definition, uses, of Reliability studies.
11.	**12-17April**	Classtest2:informationflowmetrics.Coding–Programming Principles And Guidelines, Verification – code inspections
12.	**19-24April**	Revision
13.	**26 April-**	MST Exams