

Lesson Plan for the Semester Starting: 16 January, 2023

Name of the subject: SSAD

Subject Code: BCA109

Name of the Institution: DAV Institute of Management

Name of the teacher with designation: Ms. Pooja Gour (Assistant Professor)

Department: BCA

Class Time: 1Hr.

Month	Class	Date of Class taken	Topic/Chapter Covered	Academic Activity	Test/Assignment	Deviation if any
January	1		Intro to subject and Use			
	2		Intro to System & Elements			
	3		Types of System			
	4		SDLC			
	5		SDLC			
	6		SDLC			
	7		Role of System Analyst, Analyst Interface		Assignment	
	8		System Planning			
	9		Sources of Project Request			
	10		Fact Finding			
	11		Information Gathering Tools			
	12		Fact Analysis			
	13		Doubt Class of Unit-1			
	14		Test		Test	
	15		Structured Analysis			
	16		DFD			
	17		DFD		Assignment	
	18		Data Dictionary			
	19		Flow Chart		Assignment	
	20		Gantt Chart			
	21		Decision Tree & Tables			
	22		Structured English			
	23		Feasibility Study &			

			Analysis			
	24		Cost & Benefit Analysis			
	25		Cost & Benefit		Assignment	
	26		Doubt Class			
	27		Test		Test	
	28		System Design			
	29		IPO Chart			
	30		Input Form Design			
	31		Output Form Design			
	32		Classification of form			
	33		Types of Form			
	34		Doubt Class			
	35		Test		Test	
	36		System Testing			
	37		Testing Technique			
	38		System Implementation			
	39		System Evaluation			
	40		System Maintenance & Types			
	41		System Documentation			
	42		Doubt Class			
	43		Test		Test	
	44		Revision			
	45		Revision			

*Above are the minimum number of classes to be scheduled for the subjects having classes 5 days per week. For subjects having classes 4 days per week and 3 days per week, the number of lectures are to bereduced i.e. 30 minimum number of classes for 3 days per week subject and 36 minimum number of classes for 4 days per week subject.

Lesson Plan for the Semester Starting:16th January

Name of the Subject:C Programming

Subject Code: BCA-106

Name of the institution: DAV Institute of Management

Name of the teacher with the designation: Ms. Jyoti Ahuja (Assistant Professor)

Department:IT Department

Class Time: 1 Hr

Month	Class	Date of Class Taken	Topic /Chapter Covered	Academic Activity	Test/ Assignment	Deviation (if any)
January	1.		Algorithm Definition, characteristics, sequential programming algorithms	Lecture		
	2.		Examples of Algorithms of sequential programming	Lecture		
	3.		Examples of Algorithms of sequential programming	Lecture		
	4.		Examples of Algorithms of conditional programming	Lecture		
	5.		Examples of Algorithms of conditional programming	Lecture		
	6.		History of C, Importance of C, Character set of C, Structure of a C Program	Lecture		
	7.		Syntax of printf() and scanf() function Example of C program	Lecture /Lab		
	8.		identifiers, keywords, Data types	Lecture		
	9.		Constant and variables, Assignment Statement	Lecture		
	10.		Operators' definition and expression, Arithmetic & relational operator and expression	Lecture /Lab		

Feburary	1		Logical operator, bitwise, unary and shorthand operator	Lecture /Lab		
	2		Conditional operator, increment and decrement operator	Lecture/La b		
	3		Type casting and conversion, operator hierarchy and associativity	Lecture		
	4		If construct, else-if construct with C Programs	Lecture/La b		
	5		Nested if else and Elseif ladder construct	Lecture/La b		
	6		Switch statement and goto statement	Lecture/La b		
	7		For Loop and its C Programs	Lecture/La b		
	8		while Loop and its C Programs	Lecture/La b		
	9		Do while Loop and its C Programs	Lecture/La b		
	10		Break and continue statements	Lecture/La b		
	11		Functions in C: Definition, Types of Functions	Lecture		
	12		Unformatted I/O Functions: getch(), getche(), getchar(), gets(), ,putch(), putchar(), puts()	Lecture/La b		
	13		String manipulation function: strcpy(), strcat(), strcmp(),strlen() etc.	Lecture/La b		
	14		User defined function: Definition and types	Lecture		
March	1.		Parameter passing, Local and Global Variables	Lecture		
	2.		Without input without output function: prototype and example	Lecture/La b		
	3.		With input without output function: prototype and example	Lecture/La b		

	4.		Without input with output function: prototype and example	Lecture/Lab		
	5.		With input with output function: prototype and example	Lecture/Lab		
	6.		Recursion with example	Lecture/Lab		
	7.		Array introduction, definition and types of arrays	Lecture /Lab		
	8		One dimensional array definition, declaration, initialization with example	Lecture /Lab		
	9		Programs of One-Dimensional Array	Lecture /Lab		
	10		Programs of One-Dimensional Array	Lecture /Lab		
	11		Two-dimensional array definition, declaration, initialization with example	Lecture /Lab		
	12		Programs of Two-Dimensional Array	Lecture /Lab		
	13		Passing functions to the array with example	Lecture/ Lab		
	14		String array definition, declaration and initialization	Lecture/ Lab		
	`15		String constant and variables	Lecture/ Lab		
April	1.		Input /output of String Data	Lecture/ Lab		
	2.		Introduction to pointers	Lecture/ Lab		
	3.		Pointers Example	Lecture/ Lab		
	4.		Storage Classes In C	Lecture/ Lab		
	5.		Storage Classes In C	Lecture/ Lab		

Lesson Plan for the Semester Starting: 16th Jan 2023

Name of the Institution: DAV Institute of Management

Name of the teacher with designation: Poonam (Assistant Professor)

Department: Department of Computer Science and Applications

Semester: 2nd

Class Time: 1Hr.

Name of the subject: Logical Organization of Computer Part-2

Subject Code: BCA – 107

Month	Class	Date of Class taken	Topic/Chapter Covered	Academic Activity	Test/Assignment	Deviation if any
Jan	1		(Unit-1) Sequential Circuits: Flip-Flops, SR FF & Clocked SR FF			
	2		JK FF, Race Around Condition & Master Slave JK FF			
	3		D-type , T-type, Edge & Level Triggered FF			
	4		State Table , State Diagram & State Equations			
	5		FF Excitation Tables			
	6				Class Test	
	7		(Unit- 2) Registers – Serial & Parallel Data transfer , Types of registers			

			SISO,SIPO,PISO,PIPO			
	8		Diagram & Truth Table of SISO,SIPO			
	9		Diagram & Truth Table of PISO,PIPO			
Feb	1		Bidirectional Shift Register , applications of Registers			
	2				Class Test	
	3		Counters & its Types, Diff b/w Asynchronous & Synchronous Counters			
	4		Block Diagram, Truth table & timing diagram of Asynchronous Up, Down Counter			
	5		Block Diagram, Truth table & timing diagram of Synchronous Up, Down Counter			
	6		Modulo N Counter, Ring & Twisted Ring Counter			
	7				Class Test	
	8		(Unit-3) I/O Devices & their Controllers			
	9		Memory Parameters & its types			
	10		Magnetic & Optical storage devices, Flash			

			Memory			
	11				Class Test	
	12		(Unit-4) Machine Instruction, Instruction Code, OPCODE , Instruction Format, Direct & Indirect Address			
	13		Types of Instruction- MRI & Register reference Instruction			
	14		Input-Output Instruction, Instruction Set Completeness			
	15				Class Test	
	16		Instruction Cycle			
Mar	1		Instruction format – three & two address instruction			
	2		Instruction format – One & Zero address instruction & RISC			
	3				Class Test	
	4		Addressing Modes(1- 5)			
	5		Addressing Modes(6- 10)			
	6		RISC VS CISC			
	7		Interrupts & its Types			
	8				Class Test	

	9		General Register Organization, Control Word			
	10		Stack Organization – Memory & Register stack			
	11				Class Test	
	12		I/O Interface			
	13		Modes of transfer- Programmed I/O			
	14		Interrupt Initiated I/O			
	15		DMA Transfer			
	16				Class Test	
Apr	1		CPU-IOP Communication			
	2		IBM 370 I/O Channel			
	3				Class Test	
	4		Revision Unit-1			
	5		Revision Unit-2			
	6		Revision Unit-3			
	7		Revision Unit-4			
	8		Doubt Session (Unit 1 & 2)			
	9		Doubt Session (Unit 3 & 4)			
	10		Discussion of Previous Year Question Papers			

Lesson Plan For Semester Starting w.e.f 16 Jan 2023

Name of the Subject:- MFCS

Subject Code:- Bca-108

Name of Institute:-DAV Institute of Management, FARIDABAD,

Name of a teacher with the designation:- Ms. Pooja Goyal, (ASSST. PROFESSOR)

Department:- BCA

Class Time:- 1 Hr.

Month	Class	Date of class Taken	Topic/Chapter Covered	Academic activity	Test/Assignment	Deviation if any
Jan	1		Basic concept of Algorithms	Lecture		
	2		Merits and Demerits of Algorithm	Lecture		
	3		Exponentiation, how to computer fast Exponentiation	Lecture		
	4		Linear search	Lecture		
	5		Binary search	Lecture		
	6		Complexity	Lecture		
	7		Big OH notation	Lecture		
	8		Advantage of logarithmic algorithms over linear algorithms	Lecture		
	9				Doubt of algorithms and test	
	10		Graph theory basic types degree sub graph	Lecture		
Febuary	1		Isomorphic and homeomorphic graph	Lecture		
	2		Matrix representation of graph	Lecture		
	3		Path circuit : Euler and Hamiltonian circuit	Lecture		
	4				Doubt and revision of unit 2	
	5		Tree properties and algorithm	Lecture		
	6		Minimum distance tree, minimum spanning tree	Lecture		
	7		Minimum distance tree, minimum spanning tree	Lecture		
	8		Doubt class of MST	Lecture		
	9		Merge sort	Lecture		
	10		Bubble sort	Lecture		
	11		Insertion sort	Lecture		

	12		Decimal to binary conversion	Lecture		
	13				TEST OF SORTING	
	14		Recursion : recursion defined function	Lecture		
	15		Recursion : recursion defined function	Lecture		
March	1		LHRR	Lecture		
	2		LHRRWCCS	Lecture		
	3		LHRRWCCS	Lecture		
	4		LHRRWCCS	Lecture		
	5		Doubt class			
	6		Dcrr	Lecture		
	7		Dcrr practical question	Lecture		
	8		Principle of Mathematical induction	Lecture		
	9		Principle of Mathematical induction	Lecture		
	10		GCD	Lecture		
	11		EUCLIDEAN ALGORITHM	Lecture		
	12		Fibonacci number	Lecture		
April	1		Congruence and equivalence relation	Lecture		
	2		Congruence and equivalence relation	Lecture		
	3		Public key encryption Schemes	Lecture		
	4		Measure of Central tendency , preparing frequency distribution table	Lecture		
	5		Mean, Mode,	Lecture		
	6		Median Measure of Dispersion	Lecture		
	7		Range, Variance and SD	Lecture		
	8		Correlation and regression	Lecture		
	9		Correlation and regression	Lecture		
	10		Doubt Class	Lecture		
	11		Doubt Class	Lecture		
	12		Doubt Class	Lecture		
	13		Doubt Class	Lecture		
	14		Doubt Class	Lecture		
	15		Doubt Class	Lecture		

Lesson Plan for the Semester Starting:16th Jan 2023

Name of the Subject: WEB DESGNING

Subject Code: BCA-206

Name of the institution: DAV Institute of Management

Name of the teacher with designation: Dr. Ritu Gautam (Assistant Professor)

Department: BCA (Section A and B)

Class Time: 1 Hr

Month	Class	Date of Class Taken	Topic /Chapter Covered	Academic Activity	Test/ Assignment	Deviation (if any)
Jan	1		Introduction to Internet	Lecture		
	2		World wide web detail	Lecture		
	3		History of internet and www	Lecture		
	4		Web browser	Lecture		
	5		Web Server	Lecture		
	6		Protocols	Lecture		
	7		TCP/IP services	Lecture		
	8		TCP/IP services	Lecture		
	9		OSI Model	Lecture		
	10		URL details	Lecture		
Feb	11		Search engines and tools	Lecture		
	12		Hosting the site	Test		
	13		ISP	Lecture		
	14		Web terminologies	Lecture		
	15		Web site planning phases	Lecture		
	16		Designing web site	Lecture		
	17		Steps for developing the site	Lecture		
	18		how to choose contents	Lecture		
	19		detail of home page	Lecture		
	20		Domain names	Lecture		
	21		Front page views	Lecture		
	22		Picture editing	Lecture	Assignment	
	23		Links	Lecture		
March	24		HTML introduction	Lecture		
	25		Features of HTML	Lecture		

	26		HTML command tags	Lecture		
	27		HTML tags	Lecture		
	28		HTML tags	Lecture		
	29		HTML tags	Lecture		
	30		HTML linking	Lecture		
	31		Image tag	Lecture		
	32		Listing	Lecture		
	33		Listing	Lecture		
	34		Tables	Lecture		
	35		Tables	Lecture		
	36		Frames	Lecture		
	37		Frames	Lecture		
April	38		Frames	Lecture		
	39		Forms(Buttons)	Lecture		
	40		HTML website	Lecture		
	41		HTML website	Lecture		
	42		HTML website	Lecture		
	43		DHTML	Lecture		
	44		Features of DHTML	Lecture	Assignment	
	45		DHTML Tags, DIV tags	Lecture		
	46		DHTML Tags	Lecture		
	47		DHTML Tags	Lecture		
	48		CSSP	Lecture		
	49		JSSS	Lecture		
	50		Revision and Doubts	Lecture		
	51		Revision and Doubts	Lecture		
	52		Revision and Doubts	Lecture		

Lesson Plan for the Semester Starting: 16 January, 2023

Name of the subject: SOFTWARE ENGINEERING

Subject Code: BCA-209

Name of the Institution: DAV Institute of Management

Name of the teacher with designation: Ms. Deepika kamboj (Assistant Professor)

Department: BCA

Class Time: 1Hr.

Month	Class	Date of Class taken	Topic/Chapter Covered	Academic Activity	Test/Assignment	Deviation if any
January 18	1		Intro to Software Engg. & SDLC			
	2		Software Crisis			
	3		Software Process & Characteristics			
	4		Waterfall & Prototype Models			
	5		Iterative & Evolutionary Model			
	6		Spiral Model & Intro to Requirement Engg			
	7		Requirement Elicitation techniques (Fast)			
	8		Software life cycle Models			
	9		Requirement Elicitation technique (QFD)			
	10		Requirement analysis using DFD , Data Dictionaries		Assignment	
	11		ER Diagrams			
	12		Intro to SRS & Nature of SRS		Test	
	13		Characteristics & Organization of SRS			
	14		Software Project Management			
	15		Management spectrum			
	16		Management spectrum			
	17		Software Project Planning			

	18		Lines of Code & Function count			
	19		Cost Estimation Models, COCOMO		Assignment	
	20		COCOMO			
	21		Risk Management			
	22		Intro to Software Design, Coupling & Cohesion			
	23		Function Oriented & Object Oriented Design			
	24		Software Measurement & Software Metrics			
	25		Size Metrics			
	26		Token Count, Halstead Software Metric			
	27		Design Metrics			
	28		Data Structure Metric			
	29		Data Structure Metric			
	30		Software Implementation			
	31		Relationship b/w Design & Implementation			
	32		Implementation Issue & Programming Support Environment			
	33		Coding the procedural design , Good Coding Style			
	34		Intro to Software Testing, Testing process			
	35		Design of Test Cases, Intro to Types of Testing			
	36		Functional Testing			
	37		Structural Testing			
	38		Test Activities			
	39		Unit, Integration Testing			
	40		System Testing, Debugging Activities			
	41		Intro to Software Maintenance			
	42		Management of Maintenance			
	43		Maintenance Process			
	44		Reverse Engineering			
	45		Configuration Management			
	46		Documentation			

*Above are the minimum number of classes to be scheduled for the subjects having classes 5 days per week. For subjects having classes 4 days per week and 3 days per week, the number of lectures are to be reduced i.e. 30 minimum number of classes for 3 days per week subject and 36 minimum number of classes for 4 days per week subject.

Lesson Plan for the Semester Starting:16th Jan 2023

Name of the Subject: Data Structures-2

Subject Code: BCA-207

Name of the institution: DAV Institute of Management

Name of the teacher with designation: Ms. Akanksha (Assistant Professor)

Department: BCA (Section A)

Class Time: 1 Hr

Month	Class	Date of Class Taken	Topic /Chapter Covered	Academic Activity	Test/ Assignment	Deviation (if any)
Jan	1		Unit – 1: Tree Data structure Definition and its terminologies: Leaf node, Sibling, Degree of the Node, Degree of the Tree	Lecture		
	2		Level of the Node, Path, Binary Tree, Difference Between Binary Tree and Complete Binary Tree, Strictly Binary Tree, Complete Binary Tree, Extended Binary Tree	Lecture		
	3		Tree Traversal Algorithms: Preorder, Post order and In-order Algorithms with examples	Lecture		
	4		Memory Representation of Binary tree :Sequential Representation and Linked List Representation	Lecture		
	5		Binary Search Tree :Definition, Insertion and Searching Algorithms	Lecture		

			with example			
	6		Binary Search Tree :Deletion Algorithm	Lecture		
	7		AVL Search Tree: Definition, Insertion and Searching Algorithms with examples	Lecture		
	8		AVL Search Tree: Deletion algorithm with example	Lecture		
	9		Doubts	Lecture		
	10		m-way search Tree: Definition and Insertion Algorithm	Lecture		
Feb	1		m-way search tree Deletion with example	Lecture		
	2		BST and AVL	Test		
	3		B tree Definition, Insertion and Searching Algorithm	Lecture		
	4		B Tree Deletion Algorithm with example	Lecture		
	5		B+ Tree	Lecture		
	6		Revision and Doubts	Lecture		
	7		Huffman's Algorithm with example	Lecture		
	8		General Trees	Lecture		
	9		Unit 2 : Graph Data Structure: Definition, Tree Vs Graph, Importance of Graph	Lecture		

	10		Representation of Graph in memory	Lecture		
	11		Operations on Graph : Searching of a node and edge	Lecture		
	12		Insertion of a node and an edge	Lecture		
	13		Deletion of a node and an edge	Lecture		
Marc h	1		Revision	Lecture		
	2		Huffman Algorithm	Test		
	3		Warshall's algorithm for shortest Path	Lecture		
	4		Dijkstra algorithm for shortest Path	Lecture		
	5		Graph Traversal Algorithms :DFS and BFS	Lecture		
	6		Topological Sorting with example	Lecture		
	7		Revision and Doubts Session	Lecture		
	8		Unit- 3: Sorting and Types of Sorting, Complexity of an algorithm in terms of Time and Space Complexity	Lecture		
	9		Radix Sort: Introduction, algorithm and its complexity	Lecture		
	10		Quick Sort: Introduction, algorithm and its complexity	Lecture		

	11		Practical Implementation of Quick Sort	Lecture		
	12		Heap Sort: Introduction, algorithm and its complexity	Lecture		
	13		Practical Implementation of Heap Sort	Lecture		
	14		Merge Sort: Introduction, algorithm and its complexity	Lecture		
April	1		Practical Implementation of Merge Sort	Lecture		
	2		Comparison of sorting algorithms on basis of complexity	Lecture		
	3		Linear search and Binary search	Lecture		
	4		Physical storage devices and characteristics	Lecture		
	5		Records and its types	Lecture		
	6		Files introduction and its operations	Lecture		
	7		Introduction to Types of Files and serial file organisation	Lecture		
	8		Sequential, indexed- sequential files	Lecture		
	9		Random/Direct file organisation	Lecture		
	10		Inverted and Multilist File Organisation	Lecture		
	11		Hashing introduction and Hashing functions	Lecture		
	12		Collision resolution Methods	Lecture		

	13		Revision and Doubts	Lecture		
	14		Revision and Doubts	Lecture		
	15		Revision and Doubts	Lecture		

Lesson Plan for the Semester starting w.e.f jan'2023

Object Oriented Programming using C++-BCA 4th Sem, Paper Code: BCA-208

Name of Institute: DAV Institute of Management

Name of Teacher with designation: Ms.Pooja Sachdev(Assistant professor)

Department: BCA

Class Time: 1 Hour

Month	Hours	Date	Topic/Chapter Covered	Academic activity	Test/Assignment
jan	Lecture 1		Introduction to computer languages, Generations of languages	Theory	
	Lecture 2		Unit-I : Introduction to object oriented programming ,Difference between Procedural and Object oriented languages	theory	
	Lecture 3		Characteristics of OOP: Objects, classes, Encapsulation, Data Abstraction, Inheritance, Polymorphism, Dynamic Binding, and Message Passing.	Theory	
	Lecture 4		Structure of C++ program: Syntax,Data-types, Variables, Static Variables,string,namespace,exception	Theory+Demo using LCD+LAB	
	Lecture 5-7		Operators in C++,flow Control	Theory+Demo using LCD+LAB	Lab Assignment-I on the topic of conditional constructs and looping constructs(5 days)
	Lecture 8-9		Arrays , pointer	Theory+Demo using LCD+LAB	
	Lecture 10		Structure	Theory+Demo using LCD+LAB	
feb	Lecture 11-12		Functions, Recursion	Theory+Demo using LCD+LAB	Lab Assignment-II on the topic of Arrays,Strings,Structure and Functions(Four days)
	Lecture 13		Revision of Unit-I	Discussion	Assignment-I: Prepare answers to question based on topics of UNIT-I Time given: One week
	Lecture 14-15		Unit-II: Abstracting mechanism: Classes, Private, Public and Protected	Theory+Demo using LCD+LAB	
	Lecture 16-17		Constructor and Destructor	Theory+Demo using LCD+LAB	
	Lecture 18		Member functions,static members ,references	Theory+Demo using LCD+LAB	
	Lecture 19-21		Memory Management: new,delete,object copying,copy constructor,assignment operator	Theory+Demo using LCD+LAB	Lab assignment-III based on the topics:classes and objects,member functions,constructor and

					destructor,copy constructor(5 days)
	Lecture 22-23		Assignment operator,this input/output	Theory+Demo using LCD+LAB	
	Lecture 24		Revision of Unit-II	Theory+Demo using LCD+LAB	
	Lecture 25		Unit III: Inheritance and Polymorphism: Derived class and Base class,Different types of inheritance	Theory+Demo using LCD+LAB	
	Lecture 26-28		Overriding member function,Abstract class,Public and private inheritance	Theory	
	Lecture 29		Ambigity in multiple inheritance,Virtual function	Theory+Demo using LCD+LAB	Lab assignment IV based on topics: Inheritance(4 days)
	Lecture 30-31		friend function ,static function	Theory+Demo using LCD+LAB	Assignment II: Prepare answers to questions based on topics of UNIT-III Time given: Four days
	Lecture 32		Revision of Unit-III	Theory+Demo using LCD+LAB	
March & April	Lecture 33		Unit-IV: Exception Handling: Exception and derived class	Theory+Demo using LCD+LAB	Lab assignment V based on topics:Friend function,operator overloading,memory management(5 days)
	Lecture 34		Function exception declaration,unexpected exception	Theory+Demo using LCD+LAB	
	Lecture 35		Exception when handling exception,resource capture and release	Theory+Demo using LCD+LAB	
	Lecture 36-37		Template and Standard Template Library: Template classes,declaration	Theory+Demo using LCD+LAB	Assignment III: Prepare answers to questions based on UNIT-III Time given: Four days
	Lecture 38		Template functions,namespace	Theory+Demo using LCD+LAB	
	Lecture 39-40		String,iterators, Hashes,iostreams and other types	Theory+Demo using LCD+LAB	Lab Assignment VI:Programs based on topics of Unit IV
	Lecture 41-42		Revision of Unit-IV	Theory+Demo using LCD+LAB	Assignment IV: Prepare answers to questions based on unit IV Time given:Three days
	Lecture 43-45		Doubt clearing/Remedial/Meritorius classes		

Lesson Plan for the Semester Starting: 10 February, 2023

Name of the subject: E-COMMERCE

Subject Code: BCA-306

Name of the Institution: DAV Institute of Management

Name of the teacher with designation: Ms. Nisha Bansal (Assistant Professor)

Department: BBA-II

Class Time: 1Hr.

Month	Class	Date of Class taken	Topic/Chapter Covered	Academic Activity	Test/Assignment	Deviation if any
February	1		Intro to subject and Use & Overview of Electronic Commerce			
	2		Scope of Electronic Commerce & Traditional Commerce vs. Electronic Commerce			
	3		Electronic Markets			
	4		Electronic Markets			
	5		Impact of E-Commerce & Internet Commerce			
	6		E-Commerce in Perspective & Application of E-Commerce in Direct Marketing & Selling		Assignment	
	7		Obstacles in adopting E-Commerce applications			
	8		Future of E-Commerce			
	9		Doubt Class of Unit-1			
	10		Test		Test	
	11		Implementing security for E-Commerce: Protectinf E-Commerce Assets			
	12		Protecting			

			Intellectual Property & Protecting Client Computers			
	13		Protecting E-Commerce Channels			
	14		Insuring Transaction Integrity & Protecting the Commerce Server			
	15		Electronic Payment System: Electronic Cash		Assignment	
	16		Electronic Wallets			
	17		Smart Card			
	18		Smart Card			
	19		Credit and Charge Card			
	20		Revision and Doubt Class of Unit-3			
	21		Test		Test	
	22		B2B E-Commerce: Inter-Organizational Transitions			
	23		Credit Transaction Trade Cycle			
	24		Variety of transactions			
	25		Introduction to Electronic Data Interchange (EDI)		Assignment	
	26		Benefits of EDI & EDI Technology			
	27		EDI Standards & EDI Communication			
	28		EDI Implementation			
	29		EDI Agreement & EDI Security			
	30		Doubt Class			
	31		Test		Test	
	32		Value Chains in Electronic Commerce			
	33		Supply Chain			
	34		Porter's Value Chain Model			
	35		Inter Organizational Value Chains			
	36		Strategic Business Unit Chains			

	37		Industry Value Chains			
	38		Security Threats to E-Commerce: Security Overview		Assignment	
	39		Computer Security Classification & Copyright and Intellectual Property			
	40		Security Policy and Integrated Security			
	41		Intellectual Property Threats & Client Threats			
	42		Electronic Commerce Threats		Assignment	
	43		Communication Channel Threats & Server Threats			
	44		Test		Test	
	45		Revision			

*Above are the minimum number of classes to be scheduled for the subjects having classes 5 days per week. For subjects having classes 4 days per week and 3 days per week, the number of lectures are to be reduced i.e. 30 minimum number of classes for 3 days per week subject and 36 minimum number of classes for 4 days per week subject.

Lesson Plan for the Semester starting w.e.f Jan'2023

Artificial Intelligence-BCA 6th Sem , Paper Code: BCA-310

Name of Institute: DAV Institute of Management

Name of Teacher with designation: Ms.Pooja Sachdev(Assistant professor)

Department: BCA

Class Time: 1 Hour

Month	Hours	Date	Topic/Chapter Covered	Academic activity	Test/Assignment
jan	Lecture 1		Turing Test and Criticism faced by Turing Test	Theory	
	Lecture 2		Intelligence and AI definition, Reasons behind vast development in AI, Importance of AI	theory	
	Lecture 3		Difference between Conventional and AI Problems,	Theory	
	Lecture 4		AI Applications	THEORY	
	Lecture 5-7		AI and its related field	THEORY	
	Lecture 8-9		Criteria for Success	THEORY	
	Lecture 10		Problem and AI Problem Characteristics	THEORY	
Feb	Lecture 11-12		Problem Representation methods: State space representation	THEORY	
	Lecture 13		Problem Reduction	Discussion	Assignment-I: Prepare answers to question based on topics of UNIT-I Time given: One week
	Lecture 14-15		Unit -II Production System and its components	THEORY	
	Lecture 16-17		Issues in the design of the search problem	THEORY	
	Lecture 18		Hill Climbing Algorithm: Simple Hill Climbing	THEORY	
	Lecture 19-21		Steepest Ascent Hill Climbing Algorithm Problems in Hill Climbing Algorithm and their Solutions	THEORY	
	Lecture 22-23		Problems in Hill Climbing Algorithm and their Solutions, A* Algorithm	THEORY	
	Lecture 24		Constraint Satisfaction, Knowledge Representation: Definition, Importance of Knowledge	THEORY	
	Lecture 25		Level of knowledge, Types of Knowledge	THEORY	
	Lecture 26-28		Knowledge Representation Schemes : Semantic Net and its Reasoning Process	THEORY	

	Lecture 29		Frames and its Reasoning Process	THEORY)
	Lecture 30-31		Script, Representing Simple facts in logic, Representing instances and is_a relationship, Computable function and predicate	THEORY	Assignment II: Prepare answers to questions based on topics of UNIT-III Time given: Four days
	Lecture 32		Unit-3 : Natural Language Processing: Introduction, syntactic processing, Semantic Processing	THEORY	
March & April	Lecture 33		Discourse and pragmatic processing, Learning by taking advice, Learning in Problem solving	THEORY	
	Lecture 34		Learning from example- induction, Explanation based learning	THEORY	
	Lecture 35		Unit-4: Expert system : introduction and characteristics of Expert System	THEORY	
	Lecture 36-37		Examples of Expert System, Applications of Expert System	THEORY	Assignment III: Prepare answers to questions based on UNIT-III Time given: Four days
	Lecture 38		Benefits and Limitation of Expert System	THEORY	
	Lecture 39-40		Components of Expert System : User interface, Knowledge Base and Inference Engine	THEORY	
	Lecture 41-42		Expert System Architecture	THEORY	Assignment IV: Prepare answers to questions based on unit IV Time given: Three days
	Lecture 43-45		Expert System shells	THEORY	

Lesson Plan for semester starting w.e.f 16th Jan, 2023

Name of the Subject- Object Technologies and Programming using Java

Subject code-

Name of Institute: D. A. V Institute of Management

Name of teacher with designation: Esha Khanna, Assistant Professor (IT)

Department: BCA

Class time:1 hr.

Month	S. No.	Date of class taken on	Topic/ Chapter covered	Academic activity	Test/ Assignment	Deviation, if any
Jan	1		Paradigms of programming Languages, Evolution of OO Methodology, Basic concepts of OO Approach, Comparison of object oriented and procedure oriented approaches	Lecture, Group Discussion		
	2		Introduction to common OO Language, applications and benefits of OOPS	Lecture		
	3		Object oriented methodology 2, classes and objects, Abstraction, Encapsulation, Inheritance, Method Overriding and polymorphism	Lecture		
	4		Introduction to java, Java's History, Creation, basic features	Lecture		
	5		JVM and platform Independence, Byte code, difference between JVM, JDK and JRE	Lecture	Assignment (Theory Assignment 1)	

	6		Program structure of Java, First Java Program, Expression Statements	Lab, Demonstration		
	7		Java class Library, Basic Programs for practice	Lab	Assignment (Lab Assignment 1)	
	8		Java: Data Types, Variables and Operators, operator precedence	Lecture		
	9		Control Structure (Statements)in Java, Programs	Lab, Demonstration		
	10		Defining Classes & Methods-syntax and programs, Assigning object reference variables	Lecture		
	11		C++ vs Java	Lecture		
	12		Arrays, syntax in java, types and programs	Lecture		
	13		2 D and 3D Arrays	Lab, implementation		
	14		Revision unit 1	Test		
	15		Constructors-Importance, Why required, Types	Lecture		
	16		Constructor Overloading	Lecture, Demonstration		
	17		Constructors Lab Programs	Implementation-Lab	Assignment (Theory Assignment 2)	
	18		Keywords in Java-New operator, this reference, static methods, finalize()	Lecture		
	19		Final Keyword in Java	Lecture, Demonstration		
	20		Using objects as parameters, argument passing returning objects- Garbage collection	Lecture, Demonstration		

	21		Implementation- Keywords, Arrays and vectors	Lab Implementation		
	22		Revision unit 2	Test		
	23		Strings in Java- String class, String Handling using String class, string operations	Lecture, Demonstration		
	24		StringBuffer class and methods, Difference between StringBuffer and String class, value of method	Lecture, Demonstration		
	25		Strings programs	Lab, Implementation		
	26		Inheritance- Reusability, class inheritance, basis, access control- Syntax	Lecture	Assignment (Lab Assignment 2)	
	27		Types of Inheritance- single level, super keyword	Lecture, Demonstration		
	28		Multilevel, hierarchal Inheritance	Lab Implementation		
	29		Abstract classes	Lecture		
	30		Concept of Interface, Multiple Inheritance	Lecture, Demonstration	Assignment (Theory Assignment 3)	
	31		Polymorphism, Function Overloading, method overriding.	Lecture, Demonstration		
	32		Interfaces, function overloading, Dynamic Binding	Lab, Implementation		
	33		Exception handling, Concept, Types of Exceptions, Try- Catch keywords, catching multiple exceptions	Lecture, Demonstration		
	34		Finally, Throw and Throws keywords	Lecture, Demonstration		
	35		Creating own exceptions, writing exception subclass programs	Lab, Implementation		

	36		Packages, Defining and creating packages	Lecture, Demonstration		
	37		Package naming, accessibility of packages, classpath	Lecture, Demonstration		
	38		Using package members, Packages programs	Lab, Implementation	Assignment (Lab Assignment 3)	
	39		Multithreading Programming: The Java Thread Model , The Main Thread	Lecture		
	40		Creating Multiple Thread- 2 methods, Programs	Lecture, Demonstration		
	41		Thread Priorities, synchronization, interthread communication	Lecture, Demonstration		
	42		Thread programs, Runnable Interface and Thread Class, Setting Priorities.	Lab, Implementation	Assignment (Theory Assignment 4)	
	43		Input/ Output in java, stream and stream classes, Predefined streams	Lecture		
	44		I/O classes, reading console input, writing console output	Lecture, Demonstration		
	45		Reading and writing on Files	Lab, Implementation		
	46		The transient and volatile modifiers	Lecture	Assignment (Lab Assignment 4)	
	47		Using instance of native methods.	Lecture		
	48		Doubts& Revision	Revision		
	49		Revision- previous year question papers	Revision		
	50		Doubts	Revision		

Note- 5 Lectures per week

JAVA LAB PROGRAMS (BCA)

1. Write a program to swap 2 numbers.
2. Write a program to find greatest of 3 numbers.
3. Write a program to implement Fibonacci series.
4. Write a program to calculate factorial of a number.
5. Write a program to sort 10 numbers.
6. Write a program to print diagonal matrix.
7. Write a program to create a string named DAVIM using array of characters.
8. Create a string using Sting class and implement its methods(at least 6).
9. Create a string using StringBuffer class and implement its methods.
10. Write a program to implement constructor overloading
11. Write a program to implement parameterized constructors.
12. Write a program to find reverse of a number.
13. Write a program to find whether a number is palindrome or not.
14. Write a program to check whether a number is prime or not.
15. Write a program to implement this keyword.
16. Write a program to implement static keyword.
17. Write a program to implement super keyword.
18. Write a program to implement single level inheritance.
19. Write a program to implement multilevel inheritance.
20. Write a program to implement hierarchal inheritance.
21. Create an abstract class named DAV with abstract and concrete methods and implement it.
22. Write a program to implement multiple inheritance using interfaces.
23. Write a program to implement interface inheritance.
24. Write a program to implement function overloading.
25. Write a program to implement function overriding using dynamic dispatch method.
26. Write a program to implement exception handling in java.
27. WAP to create a user defined exception and implement it using throw keyword.

28. Write a program to implement finally keyword.
29. Write a program to implement multiple catch blocks.
30. Write a program to implement throws keyword.
31. Create a package and implement it.
32. Write a program to create multiple threads using Thread class.
33. Write a program to create multiple threads using Runnable interface.
34. W.A.P to assign priorities in threads.
35. W. A. P to implement sleep method of Thread class.
36. W.A.P to read data from text file to java program.
37. W. A. P to write data to text file.

Lesson Plan for the Semester Starting: 16 January, 2023

Name of the subject: Introduction to .Net

Subject Code: BCA-309

Name of the Institution: DAV Institute of Management

Name of the teacher with designation: Ms. Deepika Pahuja (Assistant Professor)

Department: BCA

Class Time: 1Hr.

Month	Class	Date of Class taken	Topic/Chapter Covered	Academic Activity	Test/Assignment	Deviation if any
January	1		Introduction to .net, Why .Net came into an existence	Theory		
	2		Building Blocks of .Net platform (CLR,CTS and CLS)	Theory		
	3		Features of .NET	Theory		
	4		Deploying .NET Runtime	Theory+Demo using LCD+LAB		
	5		Architecture of .net (CLR, CLS, and CTS)	Theory+Demo using LCD+LAB		
	6		Demo Lab with input and output parameters	Theory+Demo using LCD+LAB		
	7		Introduction to namespaces and type distinction, Type and	Theory+Demo using LCD+LAB		

			Objects in .NET			
	8		Demo Lab with namespace and aliasing functions	Theory+Demo using LCD+LAB		
	9		Evolution of Web Development	Discussion		
	10		Class libraries in .NET, Introduction to Assemblies and Manifest in .NET	Theory+Demo using LCD+LAB		
	11		Metadata and attributes	Theory+Demo using LCD+LAB		
	12		Characterstics of C#, Input and Output , Data types: Value type vsRefrence Type, Default value, constants	Theory+Demo using LCD+LAB		
	13		Variables, Scope of Variables	Theory+Demo using LCD+LAB		
	14		Boxing and Unboxing	Theory+Demo using LCD+LAB		

	15		Operators and expressions	Theory+Demo using LCD+LAB		
	16		Operator precedence and associativity	Theory+Demo using LCD+LAB		
	17		If, if-else, else-if ladder in C#	Theory+Demo using LCD+LAB		
	18		Switch statement in C#	Theory+Demo using LCD+LAB		
	19		For, for each loop statement in C#	Theory+Demo using LCD+LAB		
	20		While, do-while in C#	Theory+Demo using LCD+LAB		
	21		Classes and Methods	Theory+Demo using LCD+LAB		
	22		Constructors, types of constructors	Theory+Demo using LCD+LAB		
	23		Destructors	Theory+Demo using LCD+LAB		
	24		Operator overloading	Theory+Demo		

				using LCD+LAB		
	25		Function Overloading	Theory+Demo using LCD+LAB		
	26		Inheritance	Theory+Demo using LCD+LAB		
	27		Types of Inheritance	Theory+Demo using LCD+LAB		
	28		Overriding	Theory+Demo using LCD+LAB		
	29		Interfaces	Theory+Demo using LCD+LAB		
	30		Abstract Class and methods	Theory+Demo using LCD+LAB		
	31		Sealed Classes and methods	Theory+Demo using LCD+LAB		
	32		Delegates and events	Theory+Demo using LCD+LAB		
	33		Exceptional Handling	Theory+Demo using LCD+LAB		
	34		Automatic Memory Management	Theory+Demo using LCD+LAB		

	35		Introduction to ADO.Net	Theory		
	36		Demo Lab showing connectivity with SQL	Theory+Demo using LCD+LAB		
	37		Revision	Theory		
	38		Revision	Theory		
	39		Previous year paper	Theory		
	40		Revision	Theory		
	41		Revision	Theory		
	42		Revision	Theory		
	43		Revision	Theory		
	44		Revision	Theory		
	45		Revision	Theory		

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