

LESSON PLAN

Subject: Java Programming

Subject code: ES-301 A

Session: 2024-25

Semesters: V

S. No	Topic	No. of Lec	CO Covered	Panned Date	Actual Date	Teaching Methodology
1	Unit-1: Introduction to Java & Principles of Object-Oriented Programming: Basic Concepts of OOP and it's Benefits, Application of OOP.	1	CO1	28/08/24	28/08	PPT, Chalk & Talk
2	The Creation of Java, Importance of Java for the Internet, The Byte-code, Features of Java, Java Program Structure	1		29/08/24	21/08	PPT, Chalk & Talk
3	Creating Objects of a Class, Assigning Object Reference Variables	1		30/08/24	30/08	PPT, Chalk & Talk
4	The keyword "this", Arrays, Arrays of Characters, String handling Using String Class, Automatic Garbage Collection.	1		02/09/24	02/09	PPT, Chalk & Talk
5	Use of Static keyword and Constructors in Java, Type of Interfaces and use of classes, Using Final Modifier	1		03/09/24	03/09	PPT, Chalk & Talk
6	The Universal Super Class-Object Class, Access Protection in Packages, Concept of Interface	1		04/09/24	04/09	PPT, Chalk & Talk
7	Unit-2: Package & Interfaces: Defining a Package, packaging up your Classes	1		09/09/24	09/09	PPT, Chalk & Talk
8	Adding Classes from a Package to your Program the Java Thread Model	1		10/09/24	10/09	PPT, Chalk & Talk
9	Exception Handling: The Idea behind Exceptions, Types of Exceptions	1		11/09/24	11/09	PPT, Chalk & Talk
10	Dealing with Exceptions, Exception Objects, Defining.	1		16/09/24	16/09	PPT, Chalk & Talk
11	Your Own Exceptions, Checked and Unchecked Exceptions.	1		19/09/24	19/09	P PPT, Chalk & Talk

12	Multithreading Programming: The Java Thread Model, Understanding Threads, The Main Thread,	1		23/09/24	23/09	PPT, Chalk & Talk
13	Creating a Thread: extending Thread and implementing Runnable, Creating Multiple Threads	1	CO2	25/09/24	25/09	PPT, Chalk & Talk
14	Thread Priorities, Synchronization, Deadlocks.	1		30/09/24	30/09	PPT, Chalk & Talk
15	Inter-thread communication, Deadlocks	1		01/10/24	01/10	PPT, Chalk & Talk
16	Input/Output in Java: I/O Basic, Byte and Character Structure, I/O Classes, Reading Console Input,	1		03/10/24	03/10	PPT, Chalk & Talk
17	Writing to Console Output, Reading and Writing on Files, Random Access Files, Storing and Retrieving Objects from File. Stream Benefits.	1		14/10/24	14/10	PPT, Chalk & Talk
18	Creating Applets in Java: Applet Basics, Applets Architecture, Applet Life Cycle, Simple Applet Display Methods, Requesting Repainting, Using the Status Window, The HTML APPLET Tag, Passing parameters to Applets.	1		16/10/24	16/10	PPT, Chalk & Talk
19	Java Data Base Connectivity (JDBC): Database Connectivity- Relation Databases,	1		17/10/24	17/10	PPT, Chalk & Talk
20	JDBC API, Reusing Database Objects, Transactions, BRIGHT Techniques.	1		21/10/24	21/10	PPT, Chalk & Talk
21	Working with Windows: AWT Classes, Window	1		23/10/24	23/10	PPT, Chalk & Talk
22	Fundamentals, Working with Frame, creating a Frame	1		24/10/24	24/10	PPT, Chalk & Talk
23	Window in an Applet, displaying information within a Window.	1	CO3	04/11/24	04/11	PPT, Chalk & Talk
24	Unit-4: Event Handling: The Event Handling Process, Event Classes, Two Event Handling Mechanisms	1		06/11/24	06/11	PPT, Chalk & Talk

25	Event Listener Interfaces	1		07/11/24	07/11	PPT, Chalk & Talk
26	Role and Advantages of Java Servlets in Web application Development	1		18/11/24	18/11	PPT, Chalk & Talk
27	HTTP Servlets- Introduction, Page generation	1		20/11/24	20/11	PPT, Chalk & Talk
28	Single Thread Model, Servlet chaining	1		21/11/24	21/11	PPT, Chalk & Talk
29	Java Server pages, Synchronization	1		25/11/24	25/11	PPT, Chalk & Talk
30	Persistent state capabilities, Server Life Cycle: Servlet Alternative	1		27/11/24	27/11	PPT, Chalk & Talk
31	Server Life Cycle: Servlet Alternative, Reloading, Init and Destroy	1		28/11/24	28/11	PPT, Chalk & Talk
32	Single Thread Model, Background Processing Last Modified times	1	CO4	02/12/24	02/12	PPT, Chalk & Talk
33	Synchronization, Persistent state capabilities.	1		04/12/24	04/12	PPT, Chalk & Talk
34	Revision of Unit 1	1	CO1	05/12/24	05/12	Revision Test
35	Revision of Unit 2	1	CO2	12/12/24	12/12	Revision Test
36	Revision of Unit 3	1	CO3	14/12/24	14/12	Revision Test
37	Revision of Unit 4	1	CO4	15/12/24	15/12	Revision Test

LESSON PLAN

Subject: Computer Organization and Architecture

Subject code: PE-IT-305A

Session: 2024-25

Semester: V

S. No	Topic	No. of Lectures	CO Covered	Planned Date	Actual Date of delivery	Teaching Methodology
1	Von-Neumann Model; Stored Program Concept	2	CO1	21-22 August 2024	28-29 August 2024	PPT
2	Flynn's Classification	1	CO1	23 August 2024	29 August 2024	Board
3	CPU; Cache Memory; Main Memory; I/O Units	1	CO1	27 August 2024	30 August 2024	PPT
4	Multilevel Viewpoint of Computers	1	CO1	28 August 2024	02 September 2024	PPT
5	RTL; Bus and Memory Transfer	2	CO2	29 August 2024	04 September 2024	PPT
6	Arithmetic Operations & Logical Operations	1		04 September 2024	06 September 2024	PPT
7	Shift Operations; Arithmetic Logic Shift Unit	1		06 September 2024	06 September 2024	PPT and Board
8	Instruction Codes and Computer Register	2	CO1	09 September 2024	09 September 2024	PPT and Board
9	Computer Instructions & Timing Control	2		10-13 September 2024	10-13 September 2024	PPT and Board

10	Types of Instruction	1		16 September 2024	16 September 2024	PPT and Board
11	Register Reference Instructions; Memory Reference Instructions	1		17 September 2024	17 September 2024	PPT and Board
12	Input-Output Instructions; Design of Accumulator Logic.	1		18 September 2024	18 September 2024	PPT and Board
13	Microprogrammed Control: Control Memory	1	CO2	23 September 2024	23 September 2024	Board
14	Address sequencing	1		24 September 2024	24 September 2024	Board and PPT
15	Microprogram Sequencer	2		30 September 2024	30 September 2024	Board
16	Design of Control Unit	1		01 October 2024	01 October 2024	PPT
Revision and Class Test						
Sessional (7-10 October 2024)						
17	CPU Architecture types (accumulator, register, stack, memory/register)	2	CO3	14 October 2024	14 October 2024	Board and PPT
18	Instruction formats, Addressing Modes	2		17 October 2024	21 October 2024	PPT
19	Data Transfer and Manipulation	1		21 October 2024	22 October 2024	PPT
20	Program Control, Subroutine Call and Return	3		22 October 2024	23-28 October 2024	PPT

21	Program Interrupt; RISC; CISC	1		29 October 2024	04 th November 2024	PPT
22	Memory hierarchy, Main memory (Semiconductor RAM& ROM organization, memory expansion, Static & dynamic memory types);	1	CO4	31 October 2024	05 th November 2024	Board
23	Auxiliary Memory, Associative Memory	1		04 November 2024	07 th November 2024	
24	Cache memory (Associative& direct mapped cache organizations)	2		07 November 2024	11 th – 12 th November 2024	Board
25	Virtual Memory	3		18 November 2024	18 th – 21 st November 2024	Board

Revision Classes and Class Test .

Sessional (22-26 November 2024)

26	Direct Memory Access (DMA), Input-Output Processor (IOP).	3		28 November 2024	28 th November 2024 – 04 th Dec 2024	
----	---	---	--	------------------	--	--

Revision Classes and Class Test

Sessional (9-11 December 2024)

LESSON PLAN

Subject: Computer Graphics

Subject code: PC-IT-303A

Session: 2024-25

Semester: V

SNo	Topic	No. of Lec	CO Covered	Panned Date	Actual Date	Teaching Methodology
1	UNIT-1 What is Computer Graphics, Computer Graphics Applications	1	CO1	28 August, 2024	28/8	PPT, Chalk & Talk
2	Two dimensional Graphics Primitives: Points and Lines,	1		2 Sept ember, 2024	29/8	PPT, Chalk & Talk
3	Point Plotting Techniques: Coordinate system, Incremental Method	2		3, 4 September, 2024	30/8	PPT, Chalk & Talk
4	Line drawing algorithms: DDA & Bresenham's	2		9,10 September, 2024	2/9	PPT, Chalk & Talk
5	Circle generating algorithms: Using polar coordinates, Mid-point circle drawing algorithms.	1		11 September, 2024	4/9	PPT, Chalk & Talk
6	Filled area algorithms: Scan line polygon filling algorithms, Boundary filled algorithms.	1		16 September, 2024	5/9	PPT, Chalk & Talk
7	Graphic devices: Light pen, Mouse, Tablet	1		17 September, 2024	9/9	PPT, Chalk & Talk
8	Touch panel, Digitizers	1		18 September, 2024	11/9	PPT, Chalk & Talk

9	UNIT-2 Two Dimensional Viewing: Two dimensional geometric transformation	1	CO2	23 September, 2024	12/9	PPT, Chalk & Talk
10	Viewing pipeline, window to viewport transformation	1		24 September, 2024	13/9	PPT, Chalk & Talk
11	Window to view port mapping, Numericals	1		25 September, 2024	16/9	PPT, Chalk & Talk
12	Clipping: Point & Line clipping algorithm, Cohen-Sutherland Line clipping algorithms	2		30 September, 2024, 01 October 2024	17/9 18/9	PPT, Chalk & Talk
13	Polygon clipping: Sutherland-Hodgeman Polygon clipping algorithm	1		2 October, 2024	23/9	PPT, Chalk & Talk
14	Curve clipping, Text clipping.	1		3 October, 2024	24/9	PPT, Chalk & Talk
15	Unit – 3 Three Dimensional Viewing: Introduction to Three-dimensional display methods : Parallel & Perspective Projection depth cueing	2	CO3	14 October, 2024, 15 October, 2024	25/9 30/9	PPT, Chalk & Talk
16	surface rendering, Three-Dimensional Geometric and Modeling Transformations	3		16, 21, 22 October, 2024	14/10 15/10	PPT, Chalk & Talk
17	Viewing pipeline, Viewing coordinates	2		23, 28 October, 2024	16/10	PPT, Chalk & Talk
18	UNIT-4 Representation of 3-D Curves and Surfaces: Curved lines and surfaces	1	CO4	29 October, 2024	21/10	PPT, Chalk & Talk
19	spline representations, interpolation and approximation splines	2		30 October, 2024, 4	22/10	PPT, Chalk & Talk

				November, 2024		
20	Parametric continuity conditions, Geometric continuity conditions	1		5 November, 2024	23/10	PPT, Chalk & Talk
21	Bezier curves and surfaces: Bezier curves, properties of Bezier curves	1		6 November, 2024	28/10	PPT, Chalk & Talk
22	Bezier surfaces, B-spline curves and surfaces.	1		18 November, 2024	4/11	PPT, Chalk & Talk
23	Hidden Surfaces removal: Classification of Visible-Surface Detection algorithms	1		19 November, 2024	5/11	PPT, Chalk & Talk
24	Hidden surface elimination, depth buffer algorithm	2		20, 25 November, 2024	6/11	PPT, Chalk & Talk
25	scan line coherence and area coherence algorithm	1		26 November, 2024	18/11	PPT, Chalk & Talk
26	priority algorithm	1		27 November, 2024	19/11	PPT, Chalk & Talk
27	Revision of Unit 1	2	CO1	2, 3 December, 2024	20/11 27/11	Revision Test
28	Revision of Unit 2	2	CO2	4, 9 December, 2024	2/12	Revision Test
29	Revision of Unit 3	1	CO3	10 December, 2024	3/12	Revision Test
30	Revision of Unit 4	1	CO4	11 December, 2024	4/12	Revision Test

Department of Information Technology
LESSON PLAN

Subject: Computer Networks
Session: 2022-23 2024-25

Subject code: OE-IT-T303A
Semester: V

SNo	Topic	No. of Lectures required	CO Covered	Planned Date	Actual Date	Teaching Methodology
1	Unit-1 Introduction: Basics of Computer Networks	1	CO1	4/09/2024	04/09	PPT, Chalk And Talk
2	Need and Evolution of computer networks	1		6/09/2024	06/09	PPT, Chalk And Talk
3	Description of LAN, MAN, WAN & wireless networks.	1		9/09/2024	09/09	PPT, Chalk And Talk
4	Basics terminology of Computer Networks: Bandwidth,	1		11/09/2024	11/09	PPT, Chalk And Talk
5	Physical and logical topologies media 10 base 2, 10base 5, 10base-T, 100 base FX, 100base LX.	1		13/09/2024	13/09	PPT, Chalk And Talk
6	LAN & WAN devices Repeaters, Hubs, Switches, Bridges, Router, Gateway	1		16/09/2024	16/09 18/09	PPT, Chalk And Talk
7	OSI Reference Model: Laying architecture of networks,	1		18/09/2024	20/09	PPT, Chalk And Talk
8	OSI model Functions of each layer Services and Protocols of each Layer.	1		20/09/2024	20/09	PPT, Chalk And Talk
9	Unit 2 TCP/IP: Introduction History of TCP/IP, Layers of TCP/IP	1	CO2	23/09/2024	23/09	PPT, Chalk And Talk
10	Protocols, Internet Protocol	1		25/09/2024	24/09	PPT, Chalk And Talk
11	Overview of IP version 6.	1		27/09/2024	25/09	PPT, Chalk And Talk
12	Transmission control protocol	1		30/09/2024	30/09	PPT, Chalk And Talk
13	User Datagram Protocol, Internet control Protocols	1		04/10/2024	04/10	PPT, Chalk And Talk
14	ARP, RARP, DHCP, ICMP, application layer	1		11/10/2024	11/10	PPT, Chalk And Talk
15	Domain Name System, Email-SMTP, POP, IMAP, FTP,	1		14/10/2024	14/10	PPT, Chalk And Talk
16	HTTP, SNMP, TELNET,	1		16/10/2024	16/10	PPT, Chalk And Talk
17	OSI and TCP/IP model with description of data encapsulation & peer to peer communication	1		18/10/2024	18/10	

18	Comparison of OSI and TCP/IP model.	1		21/10/2024	21/10	PPT, Chalk And Talk
19	Unit 3 Physical Layer: Concept of Analog & Digital Signal	1	CO3	23/10/2024	23/10	PPT, Chalk And Talk
20	Bandwidth, transmission impairments: Different types of media-twisted pair, unshielded twisted pair attenuation	1		25/10/2024	25/10	PPT, Chalk And Talk
21	Coaxial cable, optical Fiber cable and wireless.	1		28/10/2024	28/10	PPT, Chalk And Talk
22	Data Link Layer: LLC and MAC sub layer, framing error control and flow control	1		30/10/2024	04/11	PPT, Chalk And Talk
23	Error detection & correction- CRC, block codes, parity and checksum	1		01/11/2024	06/11	PPT, Chalk And Talk
24	Elementary data link protocol, sliding window protocol Channel allocation problem-static and dynamic,	1	CO4	04/11/2024	08/11	PPT, Chalk And Talk
25	Multiple Access protocol- ALOHA, CSMA/CA Token bus, Token ring, FDDI.	1		06/11/2024	11/11	PPT, Chalk And Talk
26	Unit 4 Network Layer: Internet address: IP addressed Classes	2		08/11/2024	13/11,	PPT, Chalk And Talk
27	Subnetting – Sub-network, Subnet Mask, Routing techniques	1		11/11/2024	18/11	
28	Static vs. Dynamic routing, routing table	1		13/11/2024	20/11	PPT, Chalk And Talk
29	Routing algorithms: optimality principle, shortest path algorithm	1		18/11/2024	27/11	PPT, Chalk And Talk
30	Distance vector routing, link state routing, hierarchical routing	1		20/11/2024	02/12	PPT, Chalk And Talk
31	Broadcast routing, Multicast routing, Routing for mobile host.	1		22/11/2024	04/12	PPT, Chalk And Talk
32	Transport Layer: Process to process delivery; TCP & UDP, Three way handshaking	1		25/11/2024	04/12	PPT, Chalk And Talk
33	ATM AAL layer protocol.	1		27/11/2024	06/12	PPT, Chalk And Talk
				29/11/2024	06/12	PPT, Chalk And Talk

Panipat Institute of Engineering & Technology
Department of Information Technology
LESSON PLAN

Subject: Energy resource Management
Session: 2024-25

Subject code: MC-904
Semester: 5th

SNo	Topic	CO Covered	Planned Date	Actual Date	Teaching Methodology
1	Introduction to Energy and its resources	CO1	03/9/24	03/9/24	Smart board
2	Conservation of various forms of energy		04/9/24	04/9/24	Smart board
3	Conventional and Non-conventional sources		10/9/24	10/9/24	Smart board
4	Need for Non-conventional energy based power plants		10/9/24	10/9/24	Smart board
5	Revision		11/9/24	11/9/24	
6	Types of conventional energy resources	CO2	12/9/24	12/9/24	PPT
7	Selection of site		18/9/24	18/9/24	PPT
8	Working of thermal power plant		19/9/24	19/9/24	PPT
9	Working of hydro power plant		20/9/24	20/9/24	PPT
10	Nuclear power plant		24/9/24	24/9/24	PPT
11	Working of diesel power plant		01/10/24	01/10/24	PPT
12	Advantages and disadvantages of nuclear and diesel power plant		03/10/24	03/10/24	PPT
13	Revision		15/10/24	15/10/24	
14	Types of Non-conventional energy sources	CO3	16/10/24	16/10/24	PPT
15	Basic principle		17/10/24	22/10/24	PPT
16	Site selection of solar energy power plant		22/10/24	22/10/24	PPT
17	Photovoltaic technologies		23/10/24	23/10/24	PPT
18	PV systems		23/10/24	23/10/24	PPT

19	Components of PV systems		23/10/24	23/10/24	PPT
20	Wind energy power plant		24/10/24	24/10/24	PPT
21	Bio-energy plants		29/10/24	29/10/24	PPT
22	Geothermal energy plants		05/11/24	05/11/24	PPT
23	Tidal Energy Plants		05/11/24	05/11/24	PPT
25	Revision		06/11/24	06/11/24	
26	General principles of energy management	CO4	07/11/24	07/11/24	PPT
27	Energy Management		07/11/24	07/11/24	PPT
28	Energy Management Strategy		12/11/24	12/11/24	PPT
29	Modern trends and development towards computerizations of power system		13/11/24	13/11/24	PPT
30	Energy Audit Need		13/11/24	13/11/24	PPT
31	Energy Audit Types		13/11/24	13/11/24	PPT
32	Energy Audit Methodology		14/11/24	14/11/24	PPT
33	Energy Audit Approach		19/11/24	19/11/24	PPT
34	Layout of power system		20/11/24	20/11/24	PPT
35	Role of energy in economic development		20/11/24	20/11/24	PPT
36	Energy demand		20/11/24	20/11/24	PPT
37	Energy availability and its consumption		21/11/24	21/11/24	PPT
38	Indian energy scenario		21/11/24	21/11/24	PPT
39	Long term energy scenario		03/12/24	03/12/24	PPT
40	Energy sector reforms in India		03/12/24	03/12/24	PPT
41	Energy strategy for the Future	4/12/24	4/12/24	PPT	
Revision					

LESSON PLAN

Subject: Internet and Web Technology

Subject code: PC-IT-301A

Session: 2024-2025

Semester: 5th

SNo	Topic	No. of Lectures	CO	Planned Date	Actual Date	Teaching Methodology
1	Introduction to networks and internet, history,	1	CO1	28-08-24	28/8/24	PPT, Chalk And Talk
2	Working of Internet, Internet Congestion	1		29-08-24	29/8/24	PPT, Chalk And Talk
3	Network Topologies	1		30-08-24	30/8/24	PPT, Chalk And Talk
4	Internet, Intranet & Extranet	1		4-09-24	4/9/24	PPT, Chalk And Talk
5	Modes of Connecting to Internet, Internet Service Providers (ISPs)	2		5-09-24	5/9/24	PPT, Chalk And Talk
6	Internet address, standard address	1		9-09-24	9/9/24	PPT, Chalk And Talk
7	Introduction to OSI and TCP/IP	1		10-09-24	10/9/24	PPT, Chalk And Talk
8	Domain name, DNS	1		12-09-24	12/9/24	PPT, Chalk And Talk
9	Telnet and FTP	1		16-09-24	16/9/24	PPT, Chalk And Talk
10	HTTP, IP.v6	1		17-09-24	17/9/24	PPT, Chalk And Talk
11	,Modems	1		20-09-24	20/9/24	PPT, Chalk And Talk
12	Introduction, Miscellaneous Web Browser details	1	CO2	24-09-24	24/9/24	PPT, Chalk And Talk
13	Searching the www: Directories search engines and meta search engines	1		30-09-24	30/9/24	PPT, Chalk And Talk
14	Search fundamentals, search strategies	1		01-10-24	1/10/24	PPT, Chalk And Talk
15	Working of the search engines	1		11-10-24	14/10/24	PPT, Chalk And Talk
16	Electronic Mail: Introduction, advantages and disadvantages	1		14-10-24	14/10/24	PPT, Chalk And Talk

17	User Ids, Pass words, e-mail addresses	1	CO3	15-10-24	15/10/24	PPT, Chalk And Talk
18	Message components, message composition, mailer features	1		18-10-24	18/10/24	PPT, Chalk And Talk
19	E-mail inner workings, MIME	1		21-10-24	21/10/24	PPT, Chalk And Talk
20	Newsgroups, mailing lists, chat rooms	1		22-10-24	22/10/24	PPT, Chalk And Talk
21	Secure-mails, SMTP,POP,IMAP.	2		24-10-24	25/10/24	PPT, Chalk And Talk
22	HTML:HTML basics; HTML tags	1		28-10-24	28/10/24	PPT, Chalk And Talk
23	Text formatting; text styles	1		29-10-24	28/10/24	PPT, Chalk And Talk
24	Lists: ordered, unordered and definition lists	1		30-10-24	4/11/24	PPT, Chalk And Talk
25	Layouts; adding graphics	2		04-11-24	5/11/24	PPT, Chalk And Talk
26	Tables; linking documents; images as hyperlinks	1		05-11-24	5/11/24	PPT, Chalk And Talk
27	Form; frames and layers.	1	CO4	08-11-24	8/11/24	PPT, Chalk And Talk
28	CSS – basic style sheet concept, using style sheet in your document.	1		11-11-24	11/11/24	PPT, Chalk And Talk
29	JAVASCRIPT Features of JavaScript, Variables, Control Structures, operators	1		12-11-24	11/11/24	PPT, Chalk And Talk
30	Looping, conditional statements & functions in JavaScript	1		14-11-24	12/11/24	PPT, Chalk And Talk
31	Privacy and security topics: Introduction, Need of Security, Attacks, Types of attacks	1		18-11-24	19/11/24	PPT, Chalk And Talk
32	Security policy, Introduction to Encryption and Decryption	2		19-11-24	19/11/24	PPT, Chalk And Talk
33	Secure Web document, Digital Signatures, Firewalls	2		22-11-24	20/11/24	PPT, Chalk And Talk

34	Intrusion detection systems, Proxy Server, VPN.	1		25-11-24	27/11/24	PPT, Chalk And Talk
35	Introduction to Server:- Introduction to client-server architecture, Apache, Internet Information Server	2		26-11-24	2/12/24	PPT, Chalk And Talk