

<p style="text-align: center;">LESSON PLAN PGDCA Sem-I Subject- C Session 2018-2019</p>	
Month	Topic
WEEK-1	Programming Process: Problem definition, Algorithm development, Flowchart, Coding, Compilation and debugging.
WEEK-2	Basic structure of C program: History of C, Structure of a C program, Character set, Identifiers and keywords, constants, variables, data types.
WEEK-3	Operators and expressions: Arithmetic, Unary, Logical, Relational operators, assignment operators, Conditional operators, Hierarchy of operations type conversion.
week 4	Control statements: branching statements (if, if else, switch), loop statements (for, while and do-while), jump statements (break, continue, goto), nested control structures.
week 5	call, formal and actual arguments, local and global variables, methods of parameter passing to functions, recursion.
week 6	I/O functions: formatted & unformatted console I/O functions
week 7	Arrays: – One dimensional and two dimensional arrays
week 8	MST
week 9	MST
week 10	Structures and unions: using structures and unions, comparison of structure with arrays and union.
week 11	Pointers: pointer data type, pointer declaration, initialization, accessing values using pointers,
week 12	Declaration, initialization, reading values into an array, displaying array contents
week 13	pointers and arrays.
week 14	Strings: input/output of strings, string handling functions (strlen, strcpy, strcmp, strcat &
week 15	Introduction to Files in C: opening and closing files. Basic I/O operation on files.
week 16	Quaries from students

Teacher'

Signature:

Principal
Govt. College
Ropar

21/10/2018
H.O.D

Department of Computer Science (HES), Government College, Ropar
 (2019-20)
Class PGDCA Sem. 1ST Subject Fundamental of Information Technology

SESSION	TOPIC
Week 1	Introduction: Historical Evolution of Computer, Block Diagram of computer, characterisation of computers, types of computers, the computer generations.
Week 2	Basic Anatomy of Computers: memory unit, input-output unit, arithmetic logic unit, control unit, central processing unit, RAM, ROM, PROM, EPROM.
Week 3	Input-Output Devices: Keyboard, Mouse, Joy tick, Track Ball, Touch Screen, Light Pen, Digitizer, Scanners, Voice Recognition Devices, Optical Recognition devices,
Week 4	Computer hardware and software
Week 5	Binary Arithmetic: Addition, subtraction and multiplication
Week 6	Dot matrix, Character and Line printer, Deskjet printer, Laser printer, and plotters.
Week 7	Number System: Non-positional and positional number systems, Base conversion, binary, decimal, hexadecimal, and
Week 8	MST
Week 9	MST
Week 10	Computer Codes: weighted and non-weighted code, BCD, EBCDIC, ASCII, Unicode, XS-3, Grey Codes
Week 11	Octal systems, conversion from one system to the other.
Week 12	Computer Software: Introduction, types of software, systems software, GUI, operating system, high level languages, assemblers, compilers and interpreters, system utilities, application packages
Week 13	Basic concepts of algorithm and flow charts: Flow charts, algorithm and decision tables, stages in the development of computer program, testing and debugging, program documentation. Internet Related Concepts: Intemet, Uses of Internet, Basic services of Internet, Email, FTP, TELNET, and WWW.
Week 14	Familiarities with terms: HTTP, HTTPS, URL, Web Browsers, IP Address, Domain Name, ISP, Web Portal, Search Engines, Blog, Surfing, Wiki.
Week 15	Applications of Information Technology and Trends: IT in Business and Industry, IT in Education & training, IT in Science and Technology, IT and Entertainment, Current Trends in IT Application - AI, Virtual Reality, Voice Recognition, Robots, Multimedia Technology.
Week 16	E-Commerce: Meaning, its advantages & limitations, Infrastructure for E-commerce, Types of E-Commerce Applications.

Mugnath


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(Mugnath)
 16/07/2019

Department of Computer Science (HIEIS), Government College, Ropar
 (2018-19)
Class PGDCA Sem. 1ST Subject Fundamental of Information Technology

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Magni Haas

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*Aug 22
12/07/2018*

LESSON PLAN (Session 2018-19)

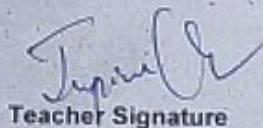
PGDCA

Subject: Operating System

(Sem 1)

SESSION	TOPIC
August (Month 1)	Week 1 Introduction: Operating System: uses of computer networks, Goals and applications of networks, computer network structure and architecture.
	Week 2 Function of Operating System, Features of Operating System
	Week 3 Medium Access Sublayer : Static and dynamic channel allocation for LAN and MAN ALOHA Protocols
	Week 4 CPU Scheduling
September (Month 2)	Mid semester Test-I
	Week 5 Networking and Internetworking devices: Repeater, bridges, routers, gateways, switches.
	Week 6 Computer networks hardware and software
	Week 7 High speed LAN: FDDI, Fast Ethernet, HIPPI, Fiber channel.
October (Month 3)	Week 8 LAN IEEE 802.x standards. Routing: Static vs. Dynamic Routing, various Routing Algorithms.
	Week 9 Congestion Control: Causes of Congestion, Various Congestion Control Strategies and Algorithms
	Mobile telephone, mobile telephone switching office.
	Congestion Control: Causes of Congestion, Various Congestion Control Strategies and Algorithms
Mobile telephone, mobile telephone switching office.	
Week 10 Mid semester Test-II	

November (Month 4)	common gateway interface (CGI);
	Dynamic HTML (DHTML): dynamic HTML and document object model; HTML and scripting access; rollover buttons; moving objects with DHTML; and ramifications of DHTML.
	Revision



Teacher Signature

By Dr.
12/07/2018

(Head of Deptt.)

Prakash
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Department of Computer Science (HEIS), Government College, Ropar (2018-19)

Class PGDCA Sem. 2nd Subject: Introduction to Computer Network, Internet and E-Commerce

Week	TOPIC
Week 1	Networking: Basic, elements in networking, network topology, different types of network LAN, MAN, WAN, GAN, PAN. Networks connecting devices.
Week 2	Open system interconnection model (OSI) Different layers, TCP/IP model and layers. Introduction to intranet and extranet.
Week 3	Internet Concepts: History of the internet, advantages and disadvantages of internet, WWW,
Week 4	IP addressing, domain name system, introduction and working of e-mail.
Week 5	Data Communication: Introduction, Relays, Repeaters, Bridges, Routers, Gateways
Week 6	Introduction to Web browser and search engine: Definition features and type internet explorer, Mozilla Firefox and Netscape navigator.
Week 7	Search Engine (types, features etc.) Electronic meeting system (Audio-conferencing, video conferencing, groupware
Week 8	Mid semester Test
Week 9	Mid semester Test
Week 10	Types of E-Commerce, infrastructure requirements for e-commerce, different ecommerce website and their features.
Week 11	Overview of E-Commerce Technologies: Ecommerce: Definition, difference with traditional commerce applications, advantages and disadvantages of e-commerce.
Week 12	Business models of E-Commerce: Business to Business, Business to customers, Customers to Customers, Business to Government, Business to Employee
Week 13	Electronic Payment System: Introduction, Online payment systems – prepaid and postpaid payment systems, e-cash, e-cheque,
Week 14	Electronic purse, Security issues on electronic payment system, Solutions to security issues Biometrics –Types of biometrics
Week 15	Gateways: Idea of SMS, Email and Payment Gateway Integration
Week 16	Smart Card, Credit Card, Debit Card

Mangat Singh
Teacher's Signature

8/7/2018
HOD's Signature

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LESSON PLAN	
P.G.D.C.A. Sem 2nd	
Subject- Object Oriented Programming	
session 2018-2019	
Month	Topic
week 1	Evolution of OOP: Procedure Oriented Programming, OOP Paradigm, Advantages and disadvantages of OOP over its predecessor paradigms. Characteristics of Object Oriented Programming.
week 2	conditional and assignment. Size of operator, Operator precedence and associativity. Type conversion, Variable declaration,
week 3	expressions, statements, manipulators, Input and output statements, stream I/O, Conditional and Iterative statements, breaking control statements. Storing Classes, Arrays, Arrays as Character Strings, Structures, Unions, Bit fields, Enumerations and User defined types.
week 4	Pointers: Pointer Operations, Pointer Arithmetic, Pointers and Arrays, Multiple indirections, Pointer to functions..
week 5	by reference, Functions returning references, Const functions, recursion, function overloading, Default Arguments, arguments, Pre-processor, Type casting.
week 6	Classes and Objects: Class Declaration and Class Definition, Defining member functions, making functions inline, Nesting of member functions, Members access control. THIS pointer. Objects: Object as function arguments,
week 7	Conditional Statements : if Statement , case Statement; Iteration Statements : for Statement, while Statement, until Statement, shift Command, select Statement, repeat Statement, Functions. Editing and Typesetting : Text Editors vi, The vi Editor, Starting vi, vi modes, array of objects, functions returning objects, Const member, Static data members and Static member functions, Friend functions and Friend classes
week 8	MST
week 9	MST
week 10	Constructors: properties, types of constructors, Dynamic constructors, multiple constructors in classes. Destructors:
week 11	Properties, Virtual destructors. Destroying objects, Rules for constructors and destructors. Array of objects. Dynamic
week 12	memory allocation using new and delete operators, Nested and container classes, Scopes: Local, Global, Namespace
week 13	and Class.
week 14	Polymorphism: Methods of achieving polymorphic behavior.
week 15	Operator overloading: overloading binary operator, overloading unary operators, rules for operator overloading,
week 16	functions, late binding, pure virtual functions and abstract base class. Difference between function overloading, redefining, and overriding.

Teacher
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July 21
12/7/2018
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