

PLANNED SYLLABUS COVERAGE (SESSION: SEPT. - DEC. 2022)			
SEMESTER - 5TH		BRANCH- COMPUTER ENGINEERING	
SUBJECT - BASICS OF MANAGEMENT & ENTREPRENEURSHIP DEVELOPMENT		TOTAL LECTURES: 56	
WEEK	HOURS ENGAGED	PARTICULARS	REMARKS
1	6	<b>1. Introduction to Management:</b> 1.1 Definitions and concept of Management 1.2 Functions of management- planning, organizing, staffing, coordinating and controlling. 1.3 Various areas of management 1.4 Structure of an Organization	
2	9	<b>2. Self-Management and Development:</b> 2.1 Life Long Learning Skills, Concept of Personality Development, Ethics and Moral values 2.2 Concept of Physical Development; Significance of health, hygiene, body gestures 2.3 Time Management Concept and its importance 2.4 Intellectual Development: Reading skills, speaking, listening skills, writing skills (Note taking, rough draft, revision, editing and final drafting), Concept of Critical Thinking and Problem Solving (approaches, steps and cases). 2.5 Psychological Management: stress, emotions, anxiety and techniques to manage these. 2.6 ICT & Presentation skills; use of IT tools for good and impressive presentations	
3	9	<b>3. Team Management:</b> 3.1 Concept of Team Dynamics. Team related skills, managing cultural, social and ethnic diversity in a team. 3.2 Effective group communication and conversations. 3.3 Team building and its various stages like forming, storming, norming, performing and adjourning 3.4 Leadership, Qualities of a good leader 3.5 Motivation, Need of Motivation, Maslow's theory of Motivation	
4	4	<b>4. Project Management:</b> 4.1 Stages of Project Management; initiation, planning, execution, closing and review (through case studies), SWOT analysis concept.	
5	9	<b>5. Introduction to Entrepreneurship:</b> 5.1 Entrepreneurship, Need of entrepreneurship, and its concept, Qualities of a good entrepreneur 5.2 Business ownerships and its features; sole proprietorship, partnership, joint stock companies, cooperative, private limited, public limited, PPP mode. 5.3 Types of industries: micro, small, medium and large	
6	6	<b>6. Entrepreneurial Support System (Features and Roles in Brief):</b> 6.1 District Industry Centers (DICs), State Financial Corporations (SFCs), NABARD, 6.2 MSME (Micro, Small, Medium Enterprises) – its objectives & list of schemes	
7	6	<b>7. Market Study and Opportunity Identification:</b> Types of market study: primary and secondary, product or service identification, assessment of demand and supply, types of survey and their important features.	
8	7	<b>8. Project Report Preparation (8 hrs)</b> 8.1 Preliminary Report, Techno-Economic Feasibility Report, Detailed Project Report (DPR).	
TOTAL HOURS	56		

REFERENCES-1. Entrepreneurship Development by S. L. Gupta and Anur Mittal: IIM Publication 2. Principles and Practice of Management by Shyamal Bannerjee: Oxford and IIM Publishing Co., New Delhi

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*Shelly Thakur*  
 Dr. Shelly Thakur  
 I.E.C.T. Applied Science

**PLANNED SYLLABUS COVERAGE (THEORY)**

GP PaontaSahib		DEPARTMENT: COMP. ENGG.		SUBJECT: PROG. USING JAVA		
SYLLABUS COVERAGE		TOTAL PERIODS: 52 (Theory)			THEORY: 52	
Sr. No	Period Nos.	Topic	Details	Instruction Reference	Additional Study Recomd.	Remarks
1.	1 to 4	Introduction	Limitations of procedure-oriented programming paradigm, object-oriented programming (OOP) – advantages of OOP, objects and classes; Essential characteristics of OOP languages – data abstraction, encapsulation, inheritance, polymorphism, dynamic binding.	1) Programming with Java: A Primer by E. Balaguruswamy, Tata McGraw Hill Publication	Internet downloaded notes can be taken for reference purposes.  (for every topics of syllabus)	
2.	5-10	Overview of java lang.	Brief history of Java, features of Java language, Java editions, Java programming terminology – JVM, JRE, JDK, JNI, WORA, Java compiler, Java interpreter, source code, bytecode; Setting CLASSPATH, JAVA_HOME and PATH environment variables, coding conventions.	2) Java How to Program by Paul Deitel, Harvey Deitel, Pearson Education		
3.	11-17	Fundamental of java programming	Structure of a typical Java program, comments – single-line, multi-line and documentation; role of main() method, Java tokens – identifiers, operators, keywords, constants, strings, special symbols; Java statements, variables – local, instance and static; scope and lifetime of variables, data types, literals, type casting – widening and narrowing;	3) Java, the Complete Reference by Herbert Schildt, McGraw-Hill Education		
4.	18 to 21	Operators and java I/O  Control	Operators - Arithmetic, Logical, Relational, Bit-wise, Assignment and Conditional Operators, Special Operators, Operator precedence and associativity, Console based IO using System.in and System.out objects.  Selection control structures – if,			

5	22-28	statements	if...else, if...else if ladder, nested if, switch...case; Looping control structures – while loop, do...while loop, for loop, for each loop; Jump statements – break, labelled break, continue, return.		
6	29-33	Arrays and strings	Array definition, one dimensional array – declaring, initializing and accessing its elements; Multi-dimensional arrays, irregular arrays, String, string literals, escape sequence, String methods – charAt(), indexOf(), length(), substring(), toLowerCase(), toUpperCase(), replace(), trim().		
7	34-40	OOP in java	Basic OOP concepts – class, instance variables, methods, object, constructor; creating objects, static members, final variables and methods, final classes, garbage collection, finalizer method, packages, access modifiers, wrapper classes.		
8	41-48	Polymorphism and inheritance	Compile time versus runtime polymorphism, method overloading, inheritance, method overriding, abstract methods, abstract class, multiple inheritance using interfaces.		
9	49-52	Exception handling and multithreading	Concept of exceptions, checked and unchecked exceptions, built-in exceptions, implementing exception handling – try, catch and finally blocks, using multiple catch statements, user-defined exceptions, throw statement, throws clause, multithreading: thread lifecycle, creating threads by extending Thread class and implementing Runnable interface		

Approved	HOD (Sign.)
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Sign of faculty  
*[Signature]*  
 31/8/22

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 31/8/22

Branch : Computer E  
 Subject : COMPU  
 Teacher Name

Sr. No.	Na
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**Government Polytechnic Paonta Sahib**

Branch : Computer Engg.

Sem. 5<sup>th</sup>

Subject : COMPUTER HARDWARE AND PERIPHERALS

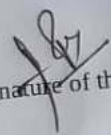
Session Sept – Dec 2022


Teacher Name : Mr. Kush Dhiman

Sr. No.	Name of the Unit	Lecture No.	Contents in details	Reference Resources	Remarks
1	Computer Hardware Devices	1 - 10	PC components, features and system design, processor types and their features, processor specification, overview of motherboards, Bus system – data I/O bus, address bus, Internal Data bus, comparing processor performance, BIOS, BIOS setup menus, Limitation of BIOS, UEFI, overview of Mobile devices hardware.	The Complete PC Upgrade and Maintenance Guide, Mark Minasi, John Willey & Sons Inc	
2	Input/ Output Devices and Ports	11-20	Objective of I/O Devices, Types of input devices, Different printing devices and their use, Display types– CRT Monitor, LCD, LED, Plasma, OLED, HDTV, data projector; Video connector types – VGA, DVI, HDMI, S-Video Characteristics of display devices – Resolution , refresh rate, response time, color quality, USB port.	The Complete PC Upgrade and Maintenance Guide, Mark Minasi, John Willey & Sons Inc	
3	Memory	21 -30	Memory basics – ROM, RAM, Types of RAM, Differentiate between DDR and GDDR, Memory Module – Registered Modules, SDR DIMM, DDR DIMM, DDR2 DIMM, DDR3 DIMM, DDR4 DIMM, Concept of cache – internal cache, External Cache (L1, L2, L3 cache);		
4	Storage Devices	31- 40	Type of storage devices, benefits and features of storage devices, Principle and operation of HDD, Basic HDD components, HDD cables and connectors, Optical Storage – CD/DVD construction technology, DVD format and standards, Concept of HD-DVD, Optical drive performance specifications – data transfer rate, drive speed, access time; Flash and removable devices – USB flash drive, SSD, Flash card readers; Concept of cloud based storage.		

CT2	CT3	Av.	Sessional Marks		HW/Assignment				Overall Sessional
			ATT	AV.					

5	Power Supply	41-46	Power supply rating, form factors, power supply connectors, Block diagram and working of SMPS, UPS – online and offline UPS, UPS Rating, comparison of UPS and Inverter.	
6	Networking Devices	47 -56	Different types of networking devices – NIC, Repeaters, Switch, Hub, router, gateways, bridge, modem, Access point, Bluetooth, Firewall; Internet connectivity technologies – Dial-up, ISDN, broadband, Wi-Max, leased line, Networking cables and their comparison, Networking tools.	The Complete PC Upgrade and Maintenance Guide, Mark Minasi, John Willey & Sons Inc

  
Signature of the HOD

  
Signature of the Teacher

**GOVERNMENT POLYTECHNIC PAONTA SAHIB**  
DHAULA KUAN, DISTT. SIRMOUR (HP) - 173021

**DEPARTMENT OF COMPUTER ENGINEERING**  
**LESSON PLAN**

Academic Year	2022-23
Semester	V
Subject Title	Cloud Computing
Name of Faculty	PARUL GUPTA(Lecturer)

**STUDY AND EVALUATION SCHEME**

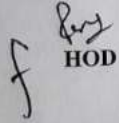
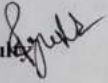
Sr. No.	Name of the Subject	Th	Pr	Internal Assessment			External Assessment					Total Marks
				Th	Pr	Total	Th	Hrs	Pr	Hrs	Total	
1	CC	4	-	50	-	50	100	3	-	3	150	150

**Subject objectives:**

Day	Unit & Topic of Discussion	Topic Details
	<b>Unit-1 : Overview of Cloud Computing</b>	
1-4	Introduction	personal computing, distributed computing, cluster computing, grid computing, utility computing, cloud computing and their comparison;
5-6	Cloud Computing	cloud computing architecture.
	<b>Unit-2 : Introduction to Cloud Computing</b>	
7-11	The NIST definition of cloud computing. Essential characteristics: on-demand self-service, broad network access, resource pooling, rapid elasticity, measured service; advantages, disadvantages,	
12-13	Applications of cloud computing; challenges in cloud computing	
	<b>Unit-3 : Service models and Deployment Models</b>	
14-20	Service models: characteristics, benefits, applications and vendors for SaaS, Paas, and IaaS; Deployment Models: private cloud, community cloud, public cloud, hybrid cloud; advantages and disadvantages of private cloud, community cloud, public cloud, hybrid cloud.	
	<b>Unit-4 : Virtualization Concepts</b>	
21-27	Virtualization and its benefits, types of virtualization: full virtualization, para-virtualization, OS-level virtualization, Type I and Type II hypervisors, pitfalls of virtualization, Live Vs. Cold VM migration	
	<b>Unit 5: Scheduling and SLA</b>	
28-32	Scheduling: Static Scheduling – Min-Min, Max-Min, and Sufferage algorithm, Service Level Agreements (SLA): Need & types of SLA, Lifecycle of SLA.	
	<b>Unit-6 : Amazon EC2 &amp; S3</b>	
33-37	Amazon EC2: Benefits and features, Amazon S3: Features and uses of Amazon S3 storage classes.	
38-48	Revision and Doubt Sessions	

	Name of Book	Author Name	Publication
Prescribed Books	Cloud Computing : Principles and Paradigm	Rajkumar Buyya	Wiley

Faculty



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