PLANNED SYLLABUS COVERAGE (Theory)

GP Kangra	Department : Computer Engineering	Subject : Basic of Management & Entrepreneurship Development
	Course : Diploma	Duration : 3 Years
SYLLABUS COVERAGE	Total Periods : 56	Theory : 4

S.No.	Period No.	Topic	Detail	Instruction Reference	Additional Study Recommended	Remarks
1.	5(1-5)	Unit-1 : Introduction to Management	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 OrganizationLife	Generic Skill Development Manual, MSBTE, Mumbai	A Handbook of Entrepreneurship, Edited by B S Rathore and Dr. J S Saini	
2.	8(6-13)	Unit-2: Self-Management and Development	2.1 Life Long Learning Skills, Concep 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.	Lifelong Learning, Policy Brief(www.oecd.orf) Towards Knowledge Society, UNESCO Publication, Paris		
3.	8(14-21)	Unit 3: Team Management	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	Entrepreneurship Development by CB Gupta and P Srinivasan: Sultan Chand and sons: New Delhi		

4.	4(22-25)	Unit-4: Project Management	4.1 Stages of Project Management; initiation, planning, execution, closing and review (through case studies), SWOT analysis concept.			
5.	9(26-34)	Unit-5: Introduction to Entrepreneurship	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.	Principles and Practice of Management by Shyamal Bannerjee: Oxford and IBM Publishing Co, New Delhi		
6.	7(35-41)	Unit-6 : Entrepreneurial Support System (Brief Introduction)	6.1 District Industry Centers (DICs), State Financial Corporations (SFCs), NABARD 6.2 MSME (Micro, Small, Medium Enterprises) – its objectives & list of schemes	Entrepreneurship Development by S. L. Gupta and Arun Mittal: IBH Publication		
7.	7(42-48)	Unit-7 Market Study and Opportunity Identification	7.1 Types of market study: primary and secondary, product or service identification, assessment of demand and supply, types of survey and their important features			
8.	8(49-56)	Unit-8 : Project Report Preparation	8.1 Preliminary Report, Techno-Economic Feasibility Report, Detailed Project Report (DPR)			

APPROVED	SIGN HOD
Date : 10/8/23	

G P Kangra	Department: -COMPUTER ENGG. Subject- CH&P				
	Course -DIPLOMA		Duration -3 Years		
SYLLABUS COVERAGE	Total Periods-56		Theory -56		
Sr No	Period Nos	Topic	Details	Instruction Reference	Additional Study Recommended	Remarks
1	1-10	Computer Hardware Devices	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	11-20	I/O Devices and Ports	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.	---do-----		
3	21-30	Memory	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);	---do-----		
4	31-40	Storage Devices	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.	---do-----		
5	41-46	Power Supply	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.	---do-----		
6	47-56	Networking Devices	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..	---do-----		

Approved	HOD Sign.
Date 10/8/23	

GP Kangra	Department: Computer Engg.	Subject: JAVA Programming	Semster:- 5th		
	Course : Diploma	Duration: 3 Yrs.			
	Total Period: Theory : 56	Practical: 56			

Sr. No.	Period No.	Topic	Details	Instructional Reference	Additional Study Material	Remarks
1	1,2	Introduction to Object-Oriented Programming	Limitations of procedure-oriented programming paradigm, object-oriented programming (OOP) – advantages of OOP, objects and classes;	1. Programming with Java: A Primer by E. Balaguruswamy, Tata McGraw Hill Publication 2. Java How to Program by Paul Deitel, Harvey Deitel, Pearson Education	Java, the Complete Reference by Herbert Shildt, McGraw-Hill Education	
2	3,4	DO	Essential characteristics of OOP languages – data abstraction, encapsulation, inheritance, polymorphism, dynamic binding	DO	DO	
3	5,6	Overview of Java Language	Brief history of Java, features of Java language, Java editions,	DO	DO	
4	7,8	DO	Java programming terminology – JVM, JRE, JDK, JNI, WORA, Java compiler, Java interpreter, source code, bytecode;	DO	DO	
5	9,10	DO	Setting CLASSPATH, JAVA_HOME and PATH environment variables, coding conventions	DO	DO	
6	11,12,13	Fundamentals of Java Programming	Structure of a typical Java program, comments – single-line, multi-line and documenation; role of main() method	DO	DO	
7	14,15,16	DO	Java tokens – identifiers, operators, keywords, constants, strings, special symbols; Java statements, variables – local, instance and static; scope and lifetime of variables	DO	DO	
8	17,18	DO	data types, literals, type casting – widening and narrowing;	DO	DO	
9	19,20	Operators and Java I/O	Operators - Arithmetic, Logical, Relational, Bit-wise, Assignment and Conditional Operators, Special Operators	DO	DO	
10	21,22	DO	Operator precedence and associativity, Console based IO using System.in and System.out objects.	DO	DO	
11	23,24,25	Control Statements	Selection control structures – if, if...else, if...else if ladder, nested if, switch...case	DO	DO	
12	26,27,28	DO	Looping control structures – while loop, do...while loop, for loop, for each loop	DO	DO	
13	29,30	DO	Jump statements – break, labelled break, continue, return.	DO	DO	
14	31,32	Arrays and Strings	Array definition, one dimensional array – declaring, initializing and accessing its elements;	DO	DO	
15	33,34	DO	Multi-dimensional arrays, irregular arrays, String, string literals, escape sequence	DO	DO	
16	35,36	DO	String methods – charAt(), indexOf(), length(), substring(), toLowerCase(), toUpperCase(), replace(), trim().	DO	DO	
17	37,38,39	Object-oriented Programming in Java	Basic OOP concepts – class, instance variables, methods, object, constructor	DO	DO	
18	40,41,42	DO	Creating objects, static members, final variables and methods, final classes, garbage collection	DO	DO	
19	43,44	DO	Finalizer method, packages, access modifiers, wrapper classes	DO	DO	
20	45,46,47	Polymorphism and Inheritance	Compile time versus runtime polymorphism, method overloading	DO	DO	
21	48,49	DO	Inheritance, method overriding, abstract methods	DO	DO	
22	50,51,52	DO	Abstract class, multiple inheritance using interfaces.	DO	DO	
23	53,54	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	DO	DO	
24	55	DO	User-defined exceptions, throw statement, throws clause, multithreading: thread lifecycle	DO	DO	
25	56	DO	creating threads by extending Thread class and implimenting Runnable interface	DO	DO	

Sign. of Teacher

Sign. of HOD

Scanned with OKEN Scanner

PLANNED SYLLABUS COVERAGE (THEORY)

GP Kangra	Department : Computer Engineering Subject: DWH & DM					
	Course : Diploma Duration:					
Syllabus Coverage	Total Periods: Theory: 56					
Sr No	Period Nos	Topic	Details	Instruction Reference	Additional Study Recommended	Remarks
1	1-6	**Introduction to Data Warehousing**	Data Warehouse, OLTP, OLAP, comparison of OLTP and OLAP systems, three-tier data warehouse architecture, Data Warehouse Models: Enterprise warehouse, Data mart, Virtual warehouse, Types of OLAP Servers: Relational OLAP (ROLAP), Multidimensional OLAP (MOLAP), Hybrid OLAP (HOLAP).	Data Warehousing & OLAP By: Berson/Smith (TMH)	Internet 1) www.javapoint.com 2) Section 10.	
2	7-16	**Multidimensional Data Models**	Multidimensional database, data cube, concept hierarchy, OLAP Operations: Roll-up, Drill-down, Slice and dice, Pivot (rotate), Schemasfor multidimensional databases: Stars, Snowflakes, and Fact Constellations.	— do —	— do —	
3	17-26	**Data Mining & KDD Process**	Data Mining, Importance of data mining, KDD process: Data prepocessing, Data cleaning, Data integration, Data selection, Data transformation, Data mining, Pattern evaluation, Knowledge presentation. Kind of data for data mining, Interestingness of patterns, Classification of data	— do —	— do —	

2023/9/1 12:12

			mining systems, Technologies used in data mining, Major issues in Data Mining			
4	27-36	**Building DataWare house**	Top-down approach, Bottom-up approach, Steps for Data warehouse design : choosing a business process to model, choosing the grain of the business process, choosing the dimensions, choosing the measures, Recommended approach fordata warehouse development.	— do —		
5	37-46	**Mining Frequent Patterns**	Frequent patterns: itemsets, sub-sequences, sub-structures; Finding frequent itemsets using candidate generation (Apriori algorithm).	— do —		
6	47-56	**Applications & Trends in Data Mining**	Data Mining Applications: Data Mining for Financial Data Analysis, Retails and Telecommunication Industries, Science and Engineering, Intrusion Detection and Protection, Recommendation System, recent trends in data mining.	— do —		

07/08/23
(Approved)

HOD
(Comp Engg)

2023/9/1 12:12