BHAVAN'S BHAGWANDAS PUROHIT VIDYA MANDIR, NAGPUR

CURRICULUM PLANNING

2019-2020

STD:- XI   SUBJECT:- COMPUTER SCIENCE

Smt. Anju Bhutani
Principal
Bhavan's B. P. Vidya Mandir,
Civil Lines, Nagpur
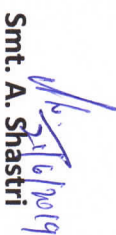
Smt. P. Nirupama Shankar
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Bhavan's B. P. Vidya Mandir,
Srikrishna Nagar, Nagpur

Smt. Vandana Bisen
Principal
Bhavan's B. P. Vidya Mandir,
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Director
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BHAVAn'S BHAGWANDAS PUROHIT VIDYA MaNDIR, NAGPUR
CURRICULUM PLAN (2019-20)
SUBJECT :- Computer Science (083)
STD :- XI

MONTH	WEEKLY DATES	NO. OF PERIODS	TOPIC	SUBTOPIC	ACTIVITIES / ASSIGNMENT	LEARNING OUTCOMES
June – 2019	14-22 (06 Days)	9	Computer Overview	Basic computer organisation: description of a computer system and mobile system, CPU, memory, hard disk, I/O, battery, power. Types of software: application, OS, utility, libraries Language of Bits: bit, byte, MB, GB, TB, and PB.	**Assignment No. 1** Presentation on : Computer and mobile system system. Software types. Problems based on bits.	Students will be able to understand : * Concepts of Computer * Functionting of Computer * Types of softwares * Concepts of bits and bytes
	24 – 29 (06 Days)	9	Data Management	Idea of a database and the need for it, relations, Keys - Primary key, Foreign key SQL commands to create a table, keys, foreign keys;	**Assignment No. 2** Definition of terminologies. Concept of Keys	Students will be able to define a database and database related terminologies. Identify the different types of keys in a database
	01-06 (06 Days)	9	SQL	Insert and delete Record Update Query Delete a table.	SQL Queries to create tables, add records , delete records outputs.	Students will be able to understand the syntax of SQL Commands and execute them on SQL prompt and observe
July - 2019	8-12 (5 Days)	7	SQL	MYSQL Functions- Numeric, String & Date Time	SQL Queries update record Numeric, String & Date Time Functions	Students will be able to modify records and make use of different types of functions.
	15-20 (06 Days)	9	SQL	SQL commands: select, project, and join; indexes,	SQL Queries based on Commands on one or more tables.	Students will be able to understand different operations of relational algebra and apply on tables.
	22 - 27 (06 Days)	9	Getting Started with Python & Python Fundamental	Introduction, Working in Python. Character Set, Tokens, Variables and assignments. Simple Input and output statements.	**Assignment No. 3** Theory question based on definitions and statements. Concept of Script and Interactive mode.	Students will enhance the : * Basic Concepts of Python Programming. * Understand the concept of variables * Input and Output statements

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July - 2019	29 - 31 (03 Days)	3	Data Handling	Data Types Mutable and Immutable types, Operators and Expressions Type Casting	**Assignment No. 4** Exercise based on Operators and Expressions for evaluating.	Students will be able to understand the : * Difference between Mutable and Immutable type. * Understand the concept of variables * Input and Output statements
	1 - 3 (03 Days)	4	Conditional & Iterative statements	Types of statement, Statement flow control, Program logic development tools(Flowchart)	**Assignment No. 5** Theory question based on definitions and drawing flow charts for a given problem	Students will be able to draw the flowcharts, write pseudo codes.
August - 2019	5 - 09 (05 Days)	7		If statement , If.. Else , If..Elif , Nested If	**Assignment No. 6** * Programs based on selection statements. * Output finding question * Error Detection	Students will be able to understand: * Conditional Statements * Program Based on simple if, if- else, if - elif - else statment.
	13-16 (03 Days)	4		Periodic Test - I - (19th August - 2019) Portion : Computer Overview and MySql		
	19-23 (05 Days)	7	Conditional & Iterative statements	Range function, For loop, While loop, loop else statement , Jump statement, Nested Loop	**Assignment No. 7** *Theory question based on drawing flow charts for a given problem and programs based on loop. * Output finding question * Error Detection	Students will be able to understand : * Concept of loops in Python program. * Detecting Errors * Output Finding
	26-31 (05 Days)	7	Debugging	Idea of debugging: errors and exceptions; debugging: pdb, break points	**Assignment 8** Theory based questions on debugging	Students will be able to : * Detecting Errors * Debug the program

MONTH	WEEKLY DATES	NO. OF PERIODS	TOPIC	SUBTOPIC	ACTIVITIES / ASSIGNMENT	LEARNING OUTCOMES
Sept - 2019	3 - 5 (03 Days)	4	Strings	Introduction, traversing and string operator	**Assignment 9** Application based question (Type B- Page No. 205 - 207)	Students will be able to understand the concept of strings in python...
	09- 14 (05 Days)	8	Strings	String slices, string functions and methods		
	16-20 (05 Days)	7	Revision		Solving previous year question papers	
Half Yearly :- Theory Exam 4th October 2019 **H.Y. Portion: (Computer Overview, MySql, Python programming upto Debugging)** **Practical Exam :- 9th Oct to 12th Oct 2019**						
Oct - 2019	14-19 (05 Days)	6	List Manipulation	Creating and accessing list, list operations joining, replicating and slicing the list	**Assignment No. 10** Output finding question * Error Detection	Student will also be able to find the output or detect the errors from the appliction based program on List.
	21-23(03 Days)		List Manipulation	Working with list, list functions and methods	Programs based on list functions and methods	
Nov- 2019	1 - 2 (02 Days)	2	Tuples	Creating and accessing tuples, tuples operations	**Assignment No. 11** Finding the maximum, minimum, mean; counting the frequency of elements in a tuple.	Students will be able to understand the concept of Tuples in Python.
	4 - 8 (05 Days)	7	Tuples	Joining and slicing the tuple, tuples functions and methods		
	11 - 16 (05 Days)	7	Dictionary	Key value pair, creating , accessing dictionary elements, Dictionary functions and methods	**Assignment No. 12** Output / Error finding questions on dictionary	Students will be able to understand the concept of Dictionary in Python.
	18 - 23 (06 Days)	9	Sorting	Bubble and Insertion sort, Count the number of operations while sorting	**Assignment No. 13** Theory based questions on String Handling functions	Students will be able to write the program based on strings.
	25-30 (06 Days)	3	Boolean Logic	Logic gates : OR, AND, NAND, NOR, XOR, NOT,		

MONTH	WEEKLY DATES	NO. OF PERIODS	TOPIC	SUBTOPIC	ACTIVITIES / ASSIGNMENT	LEARNING OUTCOMES
Nov- 2019	02-07 (06 Days)	9	Boolean Logic	Basic postulates, Principle of Duality, Boolean laws.	**Periodic Test - II (25th November - 2019)** **Portion: String, List, Tuples and Dictionary**	Students will understand the use of Boolean Operators and verify the expression by using truth tables.
Dec - 2019	09 - 14 (06 Days)	9	Boolean Logic	More logic gates Truth tables, Circuit Diagram	**Assignment No. 14** Exercise based on Boolean laws Exercise based on Truth Tables.	
	16 - 20 (05 Days)	7	NOSQL	Basics of NoSQL databases - Mongo DB, CRUD operation	**Assignment No. 15** Theory based on Mongo Database.	Students will be able to understand and differentiate between SQL and NOSQL database.
	2 - 4 (03 Days)	4	Cyber Safety	Cyber safety: safely browsing the web, identity protection, confidentiality		
Jan - 2020	6 - 10 (05 Days)	7	Cyber Safety	Social networks, cyber trolls and bullying		
	13-18 (05 Days)	7	Social Networking	Appropriate usage of social networks: spread of rumours, and common social networking sites (Twitter, LinkedIn, and Facebook) and specific usage rules.	**Assignment No. 16** Theory based question onf Social Networking. Presentation of Social Networking, Cyber Safety, Data Security, Law and ethics.	Students will be able to understand the concept of Web Terminologies. Different ways to handle the web sites safely and also understand the way to secure the data.
	20-25 (06 Days)	9	Web Sites	Safely accessing web sites: adware, malware, viruses, Trojans		
	27 - 31 Jan 5 Days	7	Data Security	Safely communicating data: secure connections, eavesdropping, phishing and identity verification		

Periodic Test III - 27th January 2020
Portion:- Data Management upto Data Security.

MONTH	WEEKLY DATES	NO. OF PERIODS	TOPIC	SUBTOPIC	ACTIVITIES / ASSIGNMENT	LEARNING OUTCOMES
	1 (01 Day)	1	Project Topic selection and Mini Project	Games Programming Project	**Mini Project:** Form a group of 2/3 students and assign a project based on game programming.	Students will be able to understand the concept of Project Making (Menu Driven Program)
	3 -8 (06 Days)	9	Project		Student will execute any game program.	-
Feb - 2020	10 - 15 (06 Days)	9	Selection Statement	Revision	Student will demonstrate the powerpoint presentation based on Selection Statement	-
	17 - 22 (04 Days)	5	Looping	Revision	Student will demonstrate the powerpoint presentation based on Looping	-
	24 - 29 (06 Days)	9	List, Tuples and Dictionary	Revision	Student will demonstrate the powerpoint presentation List, Tuples and Dictionary	-
March-2020						

Annual Promotion Examination on 14th March 2020
Practical Exam : 16 - 19 March 2020

1) Shri. Vivekanandsingh Solanki (SKN)

2) Ms. Marzia Haidari (CL)

3) Shri. Pramod Sharma (SKN)

4) Shri. Yogesh Sawarkar (ASHTI)