

**I.B. (PG) COLLEGE, PANIPAT**  
**(SESSION 2019-20)**

Weekly Lesson Plan (January 2020 - April 2020)

Name of the Paper:- Elements of Mathematical Foundations Class : B.C.A 1st year

Name of the Teachers (Section wise):Ms. Soniya

WEEK	DATE	TOPICS
1	January (1 - 4)	Matrix,order of matrix,types of matrix
		Basic operations on matrices
		Properties of addition and multiplication of matrix
		Test
<b>SUNDAY - 05.01.2020</b>		
2	January (6-11)	Multiplication of matrices and their properties
		Problem discussion
		Determinant of matrix
		Minors and cofactors
		Singular and non singular of matrix,transpose of matrix
Properties of transpose matrix		
<b>SUNDAY - 12.01.2020</b>		
3	January (13-18)	Adjoint of matrix
		Properties of adjoint of matrix
		Inverse of square matrix and related theorems
		Symmetric,skew symmetric matrices
		Hermition, skew hermition matrices
Problem discussion		
<b>SUNDAY - 19.01.2020</b>		
4	January (20 -25)	Test
		Sub matrix and Rank of a matrix
		Elementary operations
		Equivalent matrices and related theorems
		Row and column echelon matrix
Problem discussion		
<b>January - 26.01.2020</b>		
5	January (27- 31) February (1)	Test
		Reduction of a matrix into tringular form
		Related theorems based upon triangular form
		Normal form of a matrix
		Theorems based on normal form of matrix
Using elementary operation find inverse of matrix		
<b>SUNDAY - 02.02.2020</b>		
6	February (3 -8)	Problem discussion
		Test
		To calculate P and Q
		Solution of system of linear non-homogeneous equation using inverse
		Solution of system of linear non-homogeneous equation using inverse
Related theorems based upon non homogeneous equation		

SUNDAY - 09.02.2020		
7	February (10 -15)	Problem discussion
		Test
		Solution of system of linear homogeneous equation using inverse
		Solution of system of linear homogeneous equation using rank
		Solution of system of linear homogeneous equation using rank
		Problem discussion
SUNDAY - 16.02.2020		
8	February (17-22)	Solution of system of linear non-homogeneous equation using rank
		Solution of system of linear non-homogeneous equation using rank
		Test
		Characteristic equation of a square matrix
		Cayley-Hamilton theorem
		Eigen values and eigen vector
SUNDAY - 23.02.2020		
9	February (24-29)	Eigen values and eigen vector of symmetric matrix
		Eigen values and eigen vector of skew symmetric matrix
		Problem discussion
		Test
		Eigen values and eigen vector of hermition matrix
		Diagonalization of a sq. matrix
SUNDAY - 01.03.2020		
10	March (02 -07)	Diagonalization of a sq. matrix
		<b>Logicl statements,Truth table,simple and compound statements.</b>
		<b>Negation of compound statements,implication</b>
		<b>Conditional statement,variants of conditional</b>
		<b>biconditional statements,argument</b>
		Joint denial,Tautologies
SUNDAY - 08.03.2020		
11	March (09 -14)	<b>Holi Vacations</b>
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		<b>Holi Vacations</b>
SUNDAY - 15.03.2020		
12	March (16 -21)	Problem discussion
		Test
		logical equivalence,contradiction
		Law of logic
		Law of logic
		Quantifiers,universal quantifiers
SUNDAY - 22.03.2020		
13	March (23-28)	Existential quantifiers,negation of statements with quantifiers
		Problem discussion
		Test
		Principle of mathematics induction
		Principle of mathematics induction

<b>SUNDAY - 29.03.2020</b>		
<b>14</b>	March (30 -31) April 1-4)	Problem discussion
		Test
		Binary operation,composite table
		Properties of binary operation
		Group,semi group,finite and infinite group,order of a finite group
		Addition and multiplication modulo m,
<b>SUNDAY - 05.04.2020</b>		
<b>15</b>	April (06 -11)	Order of an elements of a group,general properties of group
		Problem discussion
		Complexes and sub group
		Theorems based on sub group
		Cosets
		Normal,simple group
<b>SUNDAY - 12.04.2020</b>		
<b>16</b>	April (13-18)	Quotient group
		Homomorphism
		Isomorphism
		Test
		Ring,types of ring
		Integral domain,skew field,field
<b>SUNDAY - 19.04.2020</b>		
<b>17</b>	April (20-25)	Problem discussion
		Subring
		Characteristic of ring
		Ideals,simple ring
		Maximal ideal,principle ideal
		Prime ideal,nilpotent and nill ideal
<b>SUNDAY - 26.04.2020</b>		
<b>18</b>	April (27-30)	Problem discussion
		Ring homomorphism
		Kernal of a ring homomorphism
		Test

## I.B. (PG) COLLEGE, PANIPAT

(SESSION 2019-20)

Weekly Lesson Plan (January 2020 - April 2020)

Name of the Paper:- Logical Organization of Computers

Class: BCA-I II Sem

Name of the Teacher (Section wise): Ashwani Gupta

WEEK	DATE	TOPICS
1	January (1 - 4)	Sequential Logic: Characteristics, Flip-Flops, Clocked RS, D type, JK, T type and Master-Slave flip-flops. State table, state diagram.
		Flip-flop excitation tables
SUNDAY - 05.01.2020		
2	January (6-11)	Sequential Logic: Characteristics, Flip-Flops, Clocked RS, D type, JK, T type and Master-Slave flip-flops. State table, state diagram.
		Flip-flop excitation tables
SUNDAY - 12.01.2020		
3	January (13-18)	Sequential Logic: Characteristics, Flip-Flops, Clocked RS, D type, JK, T type and Master-Slave flip-flops. State table, state diagram.
		Flip-flop excitation tables
SUNDAY - 19.01.2020		
4	January (20 -25)	Sequential Logic: Characteristics, Flip-Flops, Clocked RS, D type, JK, T type and Master-Slave flip-flops. State table, state diagram.
		Flip-flop excitation tables
January - 26.01.2020		
5	January (27- 31) February (1)	Sequential Circuits: Designing registers – Serial Input Serial Output (SISO), Serial InputParallel Output (SIPO), Parallel Input Serial Output (PISO), Parallel Input Parallel Output (PIPO) and shift registers
SUNDAY - 02.02.2020		
6	February (3 -8)	Sequential Circuits: Designing registers – Serial Input Serial Output (SISO), Serial InputParallel Output (SIPO), Parallel Input Serial Output (PISO), Parallel Input Parallel Output (PIPO) and shift registers

SUNDAY - 09.02.2020		
7	February (10 -15)	<b>Designing counters – Asynchronous and Synchronous Binary Counters, Modulo-N Counters and Up-Down Counters</b>
SUNDAY - 16.02.2020		
8	February (17-22)	<b>Designing counters – Asynchronous and Synchronous Binary Counters, Modulo-N Counters and Up-Down Counters</b>
SUNDAY - 23.02.2020		
9	February (24-29)	<b>Memory &amp; I/O Devices: Memory Parameters, Semiconductor RAM, ROM</b>
SUNDAY - 01.03.2020		
10	March (02 -07)	<b>Memory &amp; I/O Devices: Memory Parameters, Semiconductor RAM, ROM</b>
SUNDAY - 08.03.2020		
11	March (09 -14)	<b>Magnetic and Optical Storage devices, Flash memory, I/O Devices and their controllers.</b>
SUNDAY - 15.03.2020		
12	March (16 -21)	<b>Magnetic and Optical Storage devices, Flash memory, I/O Devices and their controllers.</b>
SUNDAY - 22.03.2020		
13	March (23-28)	<b>Instruction Design &amp; I/O Organization: Machine instruction, Instruction set selection, Instruction cycle, Instruction Format and Addressing Modes. I/O Interface, Interrupt structure</b>

SUNDAY - 29.03.2020		
14	March (30 -31) April 1-4)	Instruction Design & I/O Organization: Machine instruction, Instruction set selection,
		Instruction cycle, Instruction Format and Addressing Modes. I/O Interface, Interrupt structure
SUNDAY - 05.04.2020		
15	April (06 -11)	Program-controlled, Interrupt-controlled & DMA transfer, I/O Channels, IOP.
SUNDAY - 12.04.2020		
16	April (13-18)	Program-controlled, Interrupt-controlled & DMA transfer, I/O Channels, IOP.
SUNDAY - 19.04.2020		
17	April (20-25)	Revision
SUNDAY - 26.04.2020		
18	April (27-30)	Revision

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Weekly Lesson Plan (January 2020 - April 2020)

Name of the Paper:- **OFFICE AUTOMATION** Class:- **BCA I Sem-2**

Name of the Teachers (Section wise): **TANU BAWEJA**

WEEK	DATE	TOPICS
1	January (1 - 4)	Concept ,Need of Desktop Publishing
<b>SUNDAY - 05.01.2020</b>		
2	January (6-11)	Applications of Desktop Publishing, H/S requirement of DTP
		comparison between DTP Packages
		Features of DTP
<b>SUNDAY - 12.01.2020</b>		
3	January (13-18)	Features & system requirement of Page Maker
		Components of Page Maker Window
		Menu ,Tool Bar
		Page Maker References
<b>SUNDAY - 19.01.2020</b>		
4	January (20 -25)	PageMaker,Setting Page Size, Placing the Text
		Character Specification , Paragraph settings(Specification ,paragraph rules,spacing)
		Character Specification , Paragraph settings(Specification ,paragraph rules,spacing)

January - 26.01.2020		
5	January (27- 31) February (1)	Paragraph settings(Identifiers/Tab, Define Styles,Hyphenation,Header & Footer)
		Paragraph settings(Identifiers/Tab, Define Styles,Hyphenation,Header & Footer)
		Page Numbering, Saving & Closing Publication
SUNDAY - 02.02.2020		
6	February (3 -8)	Editing Publication(Open a Publication, Story Editor, Find & change the Text)
		Change Character & Paragraph Attributes, Spell Checking
		Selecting Text, Copy, Paste, Cut, Paste Multiple, Working with columns
SUNDAY - 09.02.2020		
7	February (10 -15)	Discussion about Difficult topics
		Assignment 1
		Introduction to Office Automation, Creating & Editing Document
SUNDAY - 16.02.2020		
8	February (17-22)	Formatting Document, Auto Text, Auto Correct
		Spelling & Grammar Tool, Document Dictionary
		Page Formatting
SUNDAY - 23.02.2020		
9	February (24-29)	Bookmark, Mail Merge
		Macros and tables
		Assignment II



SUNDAY - 01.03.2020		
10	March (02 -07)	File Management
		Conditional Test
		Printing Style, linking & embedding object
SUNDAY - 08.03.2020		
11	March (09 -14)	
		HOLI BREAK
SUNDAY - 15.03.2020		
12	March (16 -21)	Problems Discussion
		Introduction about Power Point & Presentation
		Creating, Manipulating &Enhancing Slides
SUNDAY - 22.03.2020		
13	March (23-28)	Charts in Power Point
		Problem Discussion
		Problem Discussion
SUNDAY - 29.03.2020		
14	March (30 -31) April 1-4)	Revision
		Revision
		Revision

<b>SUNDAY - 05.04.2020</b>		
<b>15</b>	April (06 -11)	
<b>SUNDAY - 12.04.2020</b>		
<b>16</b>	April (13-18)	
<b>SUNDAY - 19.04.2020</b>		
<b>17</b>	April (20-25)	
<b>SUNDAY - 26.04.2020</b>		
<b>18</b>	April (27-30)	