

GOUR MAHAVIDYALAYA, MANGALBARI, MALDA
Department of Computer Science & Application
ONLINE CLASS: 01.07.2020 to 28.5.2021
DOCUMENTS/WEB PAGE

The academic year 2020-21 is an unprecedented time, due to the COVID Pandemic situation. As per the Government of West Bengal's order, all the educational institutions were closed and no student was allowed to come to the institution. Hence, all the teaching was done in online mode only.

ONLINE TEACHING AND LEARNING: 2020-21		
Name of the Faculty	Platform & Applications Used	Tools Used
Arijit Bhattacharya	Google Meet, Team link, Google Classroom, WhatsApp, Google Group (through Email), Idroo – white board, Google meet white board, Zoomit, MS- Powerpoint, Logisim – Digital Logic practical, sim8085 –microprocessor practical, Oracle – database practical, My-Sql – database practical, Gcc Compiler for C practical, g++ Compiler for C++ practical, Bash Shell – Ubuntu– shell programming.	Laptop or Mobile, Graphic drawing tablet.
Akhil Kumar Das	Google Meet, Team link, Google Classroom, WhatsApp, Google Group (through Email), Idroo – white board, Google meet white board, Zoomit, MS- Powerpoint, Oracle – database practical, My-Sql – database practical, Gcc Compiler for C practical, Codeblock	Laptop or Mobile
Ekram Alam	Google Meet, Team link, Google Classroom, WhatsApp, Google Group (through Email), Idroo – white board, Google meet white board, Zoomit, MS- Powerpoint, Gcc Compiler for C practical, Javac– java programming, Codeblock	Laptop or Mobile
Dr. Subhendu Chatterjee	Zoom , Google Meet, Google Classroom, WhatsApp, MS- Power point, My-Sql – database practical.	Laptop or Mobile
Debpratim Sinha	Zoom , GoogleMeet, Google Classroom, WhatsApp,	Laptop or Mobile
Shib Charan Chowdhury	GoogleMeet, Google Classroom, WhatsApp, MS- Powerpoint, sim8085 –microprocessor practical, Gcc Compiler for C practical -Ubuntu	Laptop or Mobile
Dipanjan Saha	No information found	

Academic Quarter	Class	Name Of The Faculty	Topic To Be Covered	No. of Lectures
Q1				
July 20 - September 20	1 ST SEM (Hons.)	Arijit Bhattacharya HONS. (THEORY+ PRACTICAL) SYLLABUS TOPICS As per ALLOTTED	DC1: Discrete Mathematics: Part - I Number Systems: Introduction: Weighted and Non-Weighted Codes, positional, Binary, Octal, Hexadecimal, Binary coded Decimal (BCD), Gray Codes, Alphanumeric codes, ASCII, EBCDIC, Conversion of bases. Sets: finite and Infinite sets, un-countably Infinite Set; functions, relations, Properties of Binary Relations, Closure, Partial Ordering Relations; counting - Pigeonhole Principle, Permutation and Combination; Mathematical Induction, Principle of Inclusion and Exclusion.	15

Academic Quarter	Class	Name Of The Faculty	Topic To Be Covered	No. of Lectures
	3 RD SEM (Hons.)	Arijit Bhattacharya	<p>DC5: Computer Organization & Architecture: : Part - I Basic Structure of Computers: Basic Functional Units, Basic Operational Concept, Bus Structure, Software, Performance, Multiprocessor and Multicomputer. Register Transfer and Micro-operation: Register Transfer Language, Register Transfer, Bus and Memory Transfers, Three State Bus Buffers, memory Transfer, Arithmetic and Logical micro-operations, Shift and Arithmetic shifts. Basic Computer Organization and Design: Instruction Codes, Stored Program Organization, Indirect Address, Computer Registers, Common Bus System, Computer Instruction, Timing and Control, Instruction Cycle, fetch Decode, Register Reference Instructions, Memory Reference Instruction, Input-Output and Interrupt, Design of Basic Computer, Design of Accumulator Logic.</p> <p>CPU Organization: Arithmetic and Logic Unit (ALU)-Combinational ALU, 2'S Complement Addition, Subtraction Unit, Booths Algorithm for Multiplication, Division Hardware using Restoration Division Algorithm. General register organization, Accumulator Based, Register Based, Stack Type CPU organization.</p> <p>requirements, Secondary Storage: Magnetic Hard Disks.</p>	30
			<p>DC7: Object Oriented Programming with C++ : : Part - I Introduction to C++: Overview of Procedural Programming and Object-Orientation Programming, Using main() function, Compiling and Executing Simple Programs in C++. Concepts of Data Types, Variables, Constants, Operators and Basic I/O Expressions, Conditional Statements and Iterative Statements, Functions and Arrays Pointers and References in C++, Memory Allocation in C++. Using Classes in C++: Principles of Object-Oriented Programming, Defining & Using Classes, Class Constructors.</p>	30
	3 RD Year (Hons)	Arijit Bhattacharya	<p>Group - C : Computer Graphics: : Part - I Introduction: Co-ordinate System, Information Handling Software, Graphics Software, Area of Application, Translation, Rotation, Scaling, Matrix Representation.</p>	20
			<p>Group - A : Object Oriented Programming: Part - I Concepts: Difference with procedure oriented programming, Data Abstraction and Information Hiding, Objects, Classes and Methods, Encapsulation, Inheritance, Polymorphism, Basics of programming.</p>	20
Q2				
Oct20-Dec20	1 ST SEM (Hons.)	Arijit Bhattacharya	<p>DC1: Discrete Mathematics: Part - II Recurrences: Recurrence Relations, generating functions, Linear Recurrence Relations with constant coefficients and their solution, Substitution Method, Master Theorem, Growth of Functions: Asymptotic Notations. Propositional Logic: Logical Connectives, Well-formed Formulas, Tautologies, Equivalences, Inference Theory.</p>	15
	3 RD SEM (Hons.)	Arijit Bhattacharya	<p>DC5: Computer Organization & Architecture: Part - II Control Unit: Hardwired Control Unit, Micro-programmed Control Unit: Control memory, Address Sequencing, conditional branching, mapping of instructions, subroutine, Design of Control Unit. CPU Registers: Program Counter, Stack Pointer Register, Memory Address Register, Instruction Register, Memory Buffer Register, Flag registers, Temporary Registers. Instructions: Operational Code, Operands, Zero, One, Two and Three Address Instruction, Instruction Types, Addressing modes, Data Transfer and Manipulation instructions, Program control instructions. CISC and RISC processors: Introduction, relative merits and De-merits. Input / Output Organization: Polling, Interrupts, subroutines, Memory mapped IO, IO mapped IO, DMA, Bus Arbitration. Memory: Primary memory: ROM, PROM, EPROM,</p>	30

			EEPROM, Flash memory, RAM: SRAM, DRAM, Cache Memory: Mapping Functions, Replacement Algorithms, Hit and Miss ratio, Virtual memories, Address Translation, Memory Management requirements, Secondary Storage: Magnetic Hard Disks.	
			DC7: Object Oriented Programming with C++ : Part - II Constructor Overloading, Function overloading in classes, Class Variables & Functions, Objects as parameters, Specifying the Protected and Private Access, Copy Constructors, Overview of Template classes and their use. Overview of Function Overloading and Operator Overloading: Need of Overloading functions and operators, Overloading functions by number and type of arguments, Looking at an operator as a function call, Overloading Operators (including assignment operators, unary operators)	30
	3 RD Year (Hons.)	Arijit Bhattacharya	Group – C : Computer Graphics: Part - II Introduction : Homogeneous Co-ordinate System, Composite Transformation, Inverse Transformation, Projection & Clipping: Cohen Sutherland line clipping, 2D & 3D Transformations, Lines, Curves and their presentations	20
			Group – A : Object Oriented Programming: Part - II Object Oriented Programming through C++: Input/Output, Function and Operator Overloading, Constructors and Destructors.	20
Q3				
Jan21- March21	2 nd SEM (Hons.)	Arijit Bhattacharya	DC4: a) Digital Logic System : Part - I Boolean Algebra: Fundamentals of Boolean Expression: Definition of Switching Algebra, Basic properties of Switching Algebra, Huntington's Postulates, Basic logic gates (AND, OR, NOT), De-Morgan's Theorem, Universal Logic gates (NAND, NOR), Minterm, Maxterm, Minimization of Boolean Functions using K-Map, Simplification of logic expression. Combinational Circuits: Half adders, Full Adder, Half Subtractor, Full Subtractor and construction using Basic Logic Gates (OR, AND, NOT) and Universal Logic Gates (NAND & NOR), Multibit Adder- Ripple Carry Adder, Carry Look Ahead adder, BCD Adder, Adder/Subtractor unit Construction using 4 bit Full adders units, 1 bit, 2 bit and 3 bit Comparators. Data Selector-Multiplexer: Expansion (Cascading), Function Realization. Encoders:- Realization of simple Encoders and priority Encoders using Basic and Universal Logic gates. Data Distributor:- De-multiplexer, Cascading. Chip Selector/Minterm Generator - Decoder- Function Realization, Cascading, BCD Decoders, Seven Segment Display and Decoders, realization of seven segment decoders using basic gates. Parity bit and Code Converters: Parity bit Generator/Checker, Gray to Binary code converter, Binary to Gray Code Converter.	30
	4 th SEM (Hons.)	Arijit Bhattacharya	DC8: a) Theory of Computation : Part - I Finite Automata: Definition of a Finite Automaton, Model, Representation, Classification – with respect to output function Mealy and Moore Machines, with respect to State Transition – Deterministic and Non-Deterministic Machine, Examples, conversion algorithms Mealy to Moore and Moore to Mealy, Non-Deterministic to equivalent Deterministic Finite automata, Finite and Infinite state machines, Removal of Null-transitions, Acceptability of String by a Finite Automaton, Design of different Finite State Machines, Minimized Equivalent Machine. Formal Languages and Grammar: Introduction to Formal Grammar and Language, Formal Definition, Chomsky's Classification of Grammar – Type 0, Type-1 or Context Sensitive, Type-2 or Context Free and Type-3 or Regular Grammar, Illustration of each of these classes with example, Sentential form, Sentences – Languages or strings, Derivations – left, right derivation, Derivation tree, Parse Tree, Syntax Tree, Ambiguous Grammar and Language, Designing of Grammar for a	30

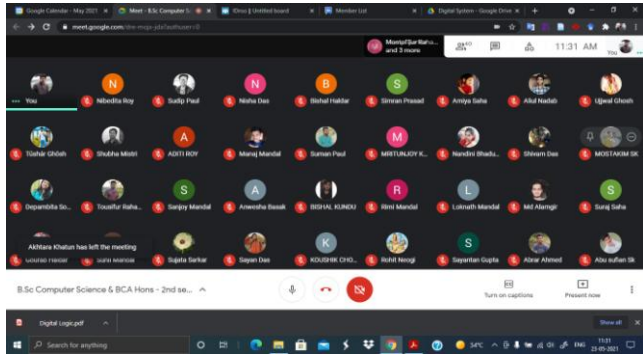
			language, Finding Language for Given Grammar.	
			Programming 8085: Part - I Instruction Set of 8085, Different Programming Techniques, Stack and Subroutines, Counter and Time Delays, Code Conversion, BCD Arithmetic and 16 bit Data Operation.	20
	3 RD Year (Hons.)	Arijit Bhattacharya	Paper – VII Group – A : Microprocessor: Part - I Interfacing concepts- Memory Interfacing, I/O Interfacing and Ports – Keyboard Interfacing, Display Interfacing, Storage Device Interfacing	20
			Group – A : Object Oriented Programming: Part - III Copy Constructors and Assignment Operator, Overloading, Single and Multiple Inheritance, Polymorphism and Virtual Functions, Namespace, Exception Handling, Templates.	20
Q4				
April21- June21	2 nd SEM (Hons.)	Arijit Bhattacharya	DC4: a) Digital Logic System : Part - II Sequential Circuits: Set/Reset (SR) Latch: Using NAND and NOR gates, Gated S-R latches, D Latch, J-K Latch, T Flip Flop, Race around Condition, Master Slave J-K Flip Flop, Edge Triggered SR, D and JK Flip Flop, Flip-Flop Conversions, Flip-Flops with Preset and Clear. Registers: Serial Input Serial Output, Serial Input Parallel Output, Parallel input Serial Output, Parallel Input parallel Output, Universal Shift Registers. Counters: Asynchronous Counter: UP/DOWN Counters, Mod - N Counters, BCD Counter, Synchronous Counter: UP/DOWN Counters, Mod-N Counters, Ring Counters, Johnson Counters.	30
	4 th SEM (Hons.)	Arijit Bhattacharya	DC8: a) Theory of Computation : Part - II Definition and basic idea about Push Down Automaton Regular Expression: Basic Idea and Definition, Regular Expression basic Identities, Arden's Theorem and application for reduction of equivalent regular expressions, Thompson's Construction Algorithm – Regular expression to Finite Automata conversion, State Transition System to Regular Expression conversion algorithm by Arden's Algebraic Method, FA to Regular Grammar and Regular Grammar to FA conversion algorithms and applications. Turing Machine: Concepts of Turing Machine, Formal Definitions, Classifications – Deterministic and Non-Deterministic Turing Machines, Simple Design of Turing Machines like – Unary Adder, Subtractor, Concatenator, Odd / even count etc and concepts of Universal Turing Machines.	30
			Programming 8085: Part - II Instruction Set of 8085, Different Programming Techniques, Stack and Subroutines, Counter and Time Delays, Code Conversion, BCD Arithmetic and 16 bit Data Operation.	20
	4 th SEM BCA (Hons.)	Arijit Bhattacharya	DC8: Discrete Mathematics: Part - I Sets: finite and Infinite sets, un-countably Infinite Set; functions, relations, Properties of Binary Relations, Closure, Partial Ordering Relations; counting - Pigeonhole Principle, Permutation and Combination; Mathematical Induction, Principle of Inclusion and Exclusion. Recurrences: Recurrence Relations, generating functions, Linear Recurrence Relations with constant coefficients and their solution, Substitution Method, Master Theorem, Growth of Functions: Asymptotic Notations. Propositional Logic: Logical Connectives, Well-formed Formulas, Tautologies, Equivalences, Inference Theory.	30
	3 RD Year (Hons)	Arijit Bhattacharya	Paper – VII Group – A : Microprocessor: Part - II Programming a Microprocessor	20
	5 th Sem BCA Non CBCS	Arijit Bhattacharya	COURSE 53: UNIX AND SHELL PROGRAMMING: Salient Features of UNIX, multi user, multi tasking capability, UNIX system Organization, types of shells Bourne shell, C shell, Korn Shell. UNIX Kernal Fundamentals. UNIX File systems: Creating files, listing files and directories, masking file permission, directory permission, Directory related commands. The boot block,	20

the super block, Incode table, data blocks, Disk related commands. Essential UNIX commands: I/O redirection and piping Editors Processes in UNIX, scheduling of processes. Communication under UNIX platform. Shell Programming: Fundamentals or shell programming, shell scripts, shell variable and keywords, positional parameters, passing command line arguments, arithmetic in shell scripts, control instruction in shells, if-then else statement, nested ifs, the case control structure, loop control structure – while loop, until loop, for loop, nesting of loops, Shell mathematics tackling multiple command line option. System Administrations: Adding removing users, system management, disk management, mounting file system, ensuring security of the system.

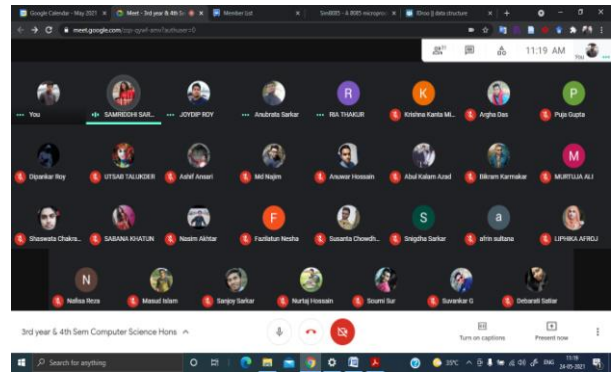
Representative teacher's diary for a week: Arijit Bhattacharya

Date	Platform with link	Semester	Paper	Topic
23/05/2021	B.Sc Computer Science & BCA Hons - 2nd sem Sunday, May 23 · 9:30 – 11:30am Google Meet joining info Video call link: https://meet.google.com/dre-mojx-jda	Sem- 2	DC4	Digital Logic System: Different adder circuits, BCD Adder, Adder/Subtractor, ripple carry adder, Parallel Adder, Carry lookahead adder.
24/05/2021	3rd year & 4th Sem Computer Science Hons Monday, May 24 · 9:30 – 11:30am Google Meet joining info Video call link: https://meet.google.com/zqs-qywf-amv	Sem- 4 & 3 rd Year	X.A & DC10	Programming 8085: Instruction set-branch instructions, machine control instructions, timing diagram, addition of two hex numbers.
25/05/2021	B.Sc Computer Science & BCA Hons - 2nd sem Tuesday, May 25 · 9:30 – 11:30am Google Meet joining info Video call link: https://meet.google.com/dre-mojx-jda	Sem- 2	DC4	Digital Logic System: Combinational circuits, Multiplexer, basic representations, universal gate representation, Application areas, Function implementation using mux, mux expansion, Adder circuit implementation using two 4x1 Mux.
26/05/2021	3rd year comp sc hons Wednesday, May 26 · 9:45 – 11:45am Google Meet joining info Video call link: https://meet.google.com/zqs-qywf-amv	3 rd Year	VIII	Object Oriented Programming (C++): Operator overloading, basic implementations, why it is used, string comparison using operator overloading, Complex number addition subtraction multiplication using operator overloading, basic introduction to Inheritance.
27/05/2021	BCA-5th Sem Thursday, May 27 · 9:30 – 11:30am Google Meet joining info Video call link: https://meet.google.com/dam-axxs-tby	BCA 5 th Sem Non CBCS	55	Unix Shell Programming : Different shells, how it works, file permissions, different problems in shell- prime number checking, matrix addition, multiplication etc.
28/05/2021	BCA 4th sem Friday, May 28 · 8:30 – 10:30am Google Meet joining info Video call link: https://meet.google.com/huk-nkcc-qok	Sem- 4	DC8	Discrete Mathematics: counting - Pigeonhole Principle, Mathematical Induction, Principle of Inclusion and Exclusion.
	B.Sc. Computer Science (H)-4th Sem ToC Friday, May 28 · 11:00am – 1:00pm Google Meet joining info Video call link: https://meet.google.com/cbn-ixid-sav	Sem- 4	DC8	Theory of Computation: Automata , Different types of Automaton, Advantages & disadvantages, Application areas, Finite automata- DFA, NFA, Conversion.
29/05/2021	3rd year & 4th Sem Computer Science Hons Saturday, May 29 · 6:00 – 8:00pm Google Meet joining info Video call link: https://meet.google.com/zqs-qywf-amv	Sem- 4 & 3 rd Year	IX.B & DC9b	Data Base Management System: Practical: Ordering, Aggregate functions- max, min, avg, count, sum; Group by, subquery; Q&A Session

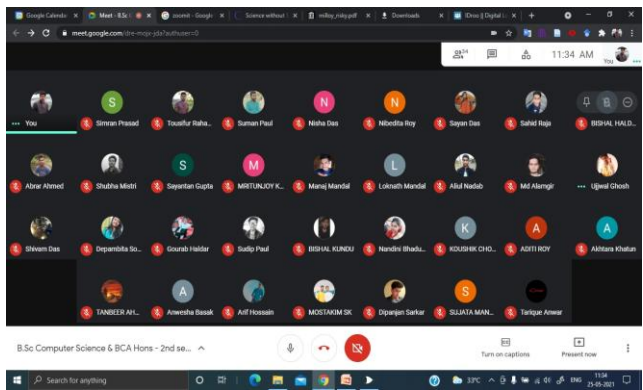
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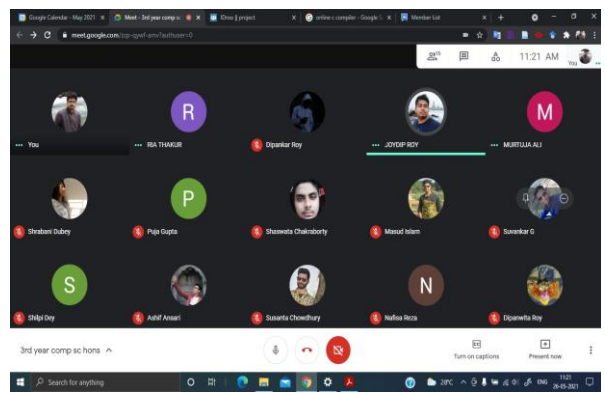
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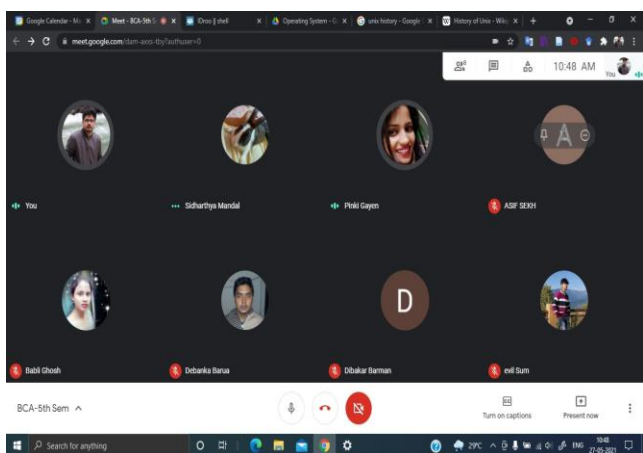
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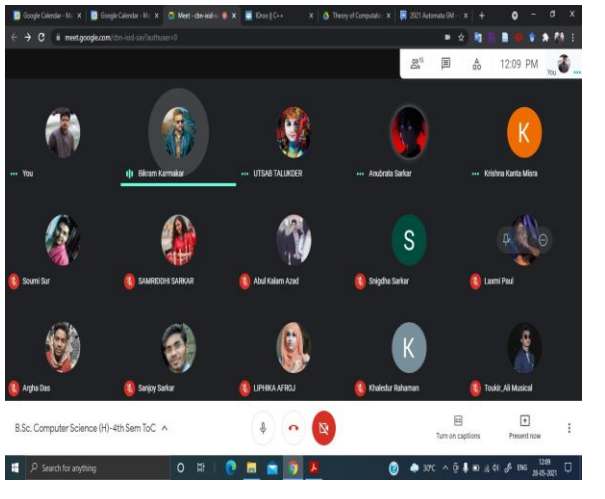
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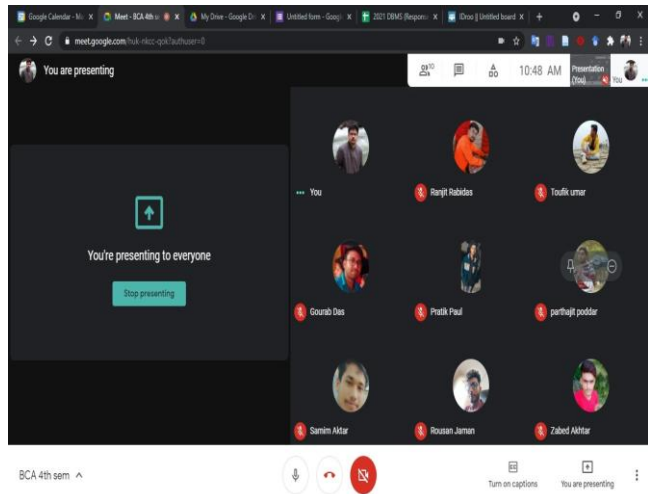
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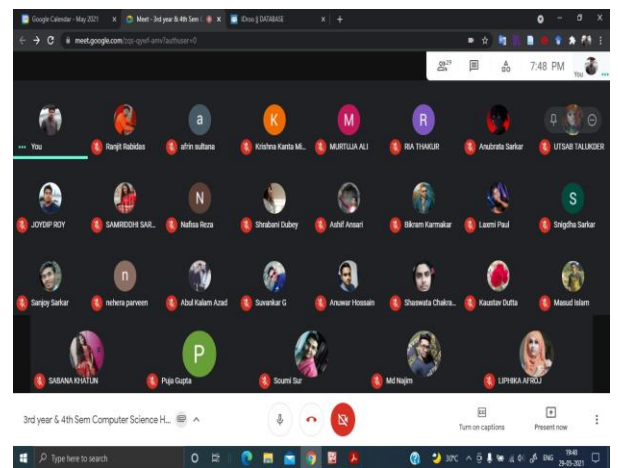
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(*Arijit Bhattacharya*)
Assistant Professor
Department of Computer Science
Gour Mahavidyalaya
Malda

Academic Quarter	Class	Name Of The Faculty	Topic To Be Covered	No. of Lectures
Q1				
July 20 - September 20	1 ST SEM (Hons.)	Akhil Kumar Das HONS. (THEORY) SYLLABUS TOPICS As per ALLOTTED	DC2: a) Introduction to Programming through C: Part - I Introduction: Basic Structure, Algorithms, Flowcharts, Structured programming constructs. C Programming elements: Character sets, Keywords, Constants, Variables, Data Types, Operators- Arithmetic, Relational, Logical and Assignment; Increment and Decrement and Conditional Operator, Precedence and Associations; Expressions, type casting. Comments, Functions, Storage Classes, Bit manipulation, Input and output. C Pre-processor: File inclusion, Macro substitution. Statements: Assignment, Control statements- if, if else, switch, break, continue, goto, Loops-while, do_while, for. Functions: Argument passing, return statement, return values and their types, recursion	30
	3 RD SEM (Hons.)	Akhil Kumar Das	DC7: Object Oriented Programming with C++ : : Part - I Introduction to C++: Overview of Procedural Programming and Object-Oriented Programming, Using main() function, Compiling and Executing Simple Programs in C++. Concepts of Data Types, Variables, Constants, Operators and Basic I/O Expressions, Conditional Statements and Iterative Statements, Functions and Arrays Pointers and References in C++, Memory Allocation in C++. Using Classes in C++: Principles of Object-Oriented Programming, Defining & Using Classes, Class Constructors.	30
	3 RD Year (Hons)	Akhil Kumar Das	Paper – VIII : Part - I Group – B : Software Engineering: Software Life Cycle, Different Models : Waterfall, Spiral, etc.; Software Requirement Analysis & Specification, Structured Analysis, DFD, Data Dictionary.	20
			Paper – VIII: Part I Group – D : Data Base Management System: Basic Concept, File Management Systems, Advantages of DBMS, ANSI/SPARC Architecture, Physical, Conceptual and External Models, ER Diagram, Data Models : Relational, Hierarchical, Network;	20
Q2				
Oct20-Dec20	1 ST SEM (Hons.)	Akhil Kumar Das	DC2: a) Introduction to Programming through C: Part - II Arrays: String handling with arrays, String handling functions. 1D Arrays, 2D Arrays. Pointers: Definition and initialization, Pointer arithmetic, Pointers and arrays, String functions and manipulation, Dynamic storage allocation. User defined Data types: Structures. Structure arrays, Pointers to Functions and Structures, Unions File Access: Opening, Closing, I/O operations.	30

	3 RD SEM (Hons.)	Akhil Kumar Das	Paper – VIII: Part -II Group – B : Software Engineering: Structured Design, Structure Charts, Software Testing : White Box and Black Box Testing, Software Quality Assurance.	20
			DC7: Object Oriented Programming with C++ : Part - II Constructor Overloading, Function overloading in classes, Class Variables &Functions, Objects as parameters, Specifying the Protected and Private Access, Copy Constructors, Overview of Template classes and their use. Overview of Function Overloading and Operator Overloading: Need of Overloading functions and operators, Overloading functions by number and type of arguments, Looking at an operator as a function call, Overloading Operators (including assignment operators, unary operators)	30
	3 RD Year (Hons.)	Akhil Kumar Das	Paper – VIII: Part -II Group – D : Data Base Management System: File Organization : Sequential, Indexed Sequential, Random, Inverted; Query Languages, Relational Algebra, Relational Calculus, Functional Dependencies	20
			Paper – VIII : Part -II Group – B : Software Engineering: Structured Design, Structure Charts, Software Testing: White Box and Black Box Testing, Software Quality Assurance.	20
Q3				
Jan21- March21	2 nd SEM (Hons.)	Akhil Kumar Das	DC3: a) Data Structure & Algorithm: Part -I Introduction to Data Structure: Abstract Data Type. Arrays: 1D, 2D and Multi-dimensional Arrays, Sparse Matrices. Polynomial representation (Polynomial Representation as Application). Linked Lists: Singly, Doubly and Circular Lists; Polynomial representation (Polynomial Representation as Application).	25
			DC4: b) Digital Logic Lab: Implementation of different Combinational Circuits:	20
	4 th SEM (Hons.)	Akhil Kumar Das	DC9: a) Database Management System : Part -I Introduction: Drawbacks of file System; Advantages of DBMS; Layered Architecture of Database, Data Independence; Data Models; Schemas And Instances; Database Languages; Database Users, DBA; Data Dictionary; Functional Components of a DBMS. Entity Relationship(ER) Modelling: Entity, Attributes and Relationship, Structural Constraints, Keys, ER Diagram of Some Example Database, Weak Entity Set, Specialization and Generalization, Constraints of Specialization and Generalization, Aggregation. Relational Model: Basic Concepts of Relational Model; Relational Algebra. Integrity Constraints: Domain Constraints, Referential	30

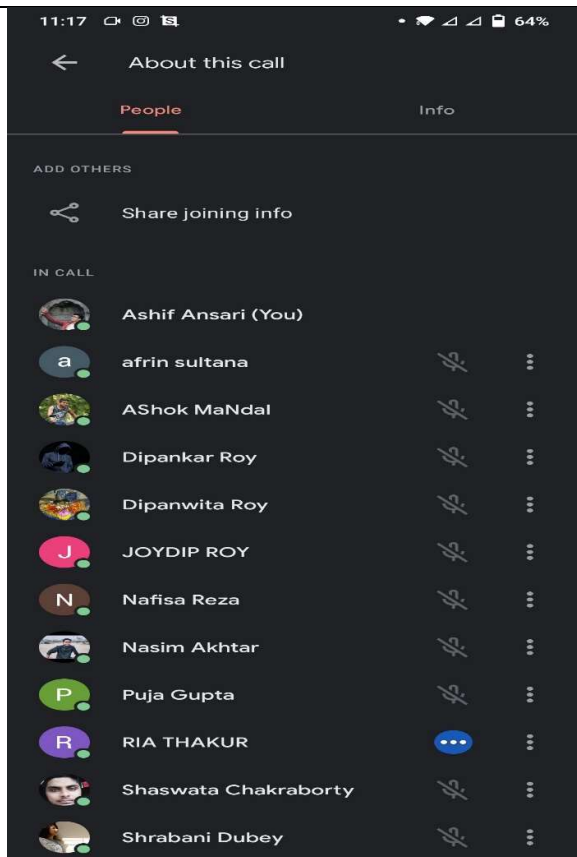
			Integrity, Assertions, Triggers.	
			DC9: b) Data Base Management System: Part - I Basic Concept, Data Models: Relational; Structured Query Languages (SQL), Integrity. Case Studie :MySql RDBMS Package.	20
	5 th SEM		COURCE 54: SOFTWARE ENGINEERING: Part-I Software Requirement and planning: Data flow diagram (DFD), Data dictionary, FRD cost estimation, Basic concepts on S/W quality. Models: Waterfall spiral, prototyping Fourth generation techniques, Soft ware process, software requirement specifications (SRS). Fact finding techniques, characteristics of a good SRS.	15
	3 RD Year (Hons.)	Akhil Kumar Das	Paper – IX: Data Base Management System:Part - I Case Studie : Oracle RDBMS Package.	20
			Paper – IX: Data Base Management System:Part - III Normal Forms : 1NF, 2NF, 3NF and BCNF; Structured Query Languages (SQL), Elementary Concepts of Security, Integrity. Case Studies : Any Commercial RDBMS Package.	20
Q4				
April21- June21	2 nd SEM (Hons.)	Akhil Kumar Das	DC3: a) Data Structure & Algorithm: Part – II Stacks: Implementing single / multiple stacks in an Array; Prefix, Infix and Postfix expressions, Utility and conversion of these expressions from one to another; Applications of stack; Limitations of Array representation of stack. Queues: Array and Linked representation of Queue, Circular Queue, De-queue, Priority Queues. Recursion: Developing Recursive Definition of Simple Problems and their implementation; Advantages and Limitations of Recursion; Understanding what goes behind Recursion (Internal Stack Implementation).	25
			DC4: b) Digital Logic Lab: Implementation of different sequential Circuits:	20
	4 th SEM (Hons.)	Akhil Kumar Das	DC9: a) Database Management System :Part – II Relational Database Design: Problems of Un-Normalized Database; Functional Dependencies (FD), Derivation Rules, Closure Of FD Set, Membership Of A Dependency, Canonical Cover; Decomposition to 1NF, 2NF, 3NF and BCNF Using FD; Lossless Join Decomposition Algorithm; Dependency preservation. SQL: Basic Structure, Data Definition, Constraints and Schema Changes; Basic SQL Queries (Selection, Insertion, Deletion, Update); Order by Clause; Complex Queries, Aggregate Function and Group by Clause; Nested Sub Queries; Correlated Sub Queries; Views (Insert-Able and Updatable), Joined Relations; Set Comparisons (All, Some). Record Storage and File Organization (Concepts only): Fixed Length and Variable Length Records; Spanned and Un-Spanned Organization of Records; Primary File Organizations and Access Structures Concepts; Unordered, Sequential, Hashed; Concepts of Primary and Secondary Index; Dense and Sparse Index; Index Sequential Files; Multilevel Indices.	30

			Transaction Processing (Concepts only): ACID Properties; Transaction States, Concurrent Execution; Serializability (Conflict and View), Recoverability, Test for Serializability.	
			DC9: b)Data Base Management System: Part - II Basic Concept, Data Models: Relational; Structured Query Languages (SQL), Integrity. Case Studie :MySQL RDBMS Package.	
	5 th SEM		COURCE 54: SOFTWARE ENGINEERING: Part-II Verifiable, consistent, modifiable, traceable and usable during the operation and maintenance phase, prototype online of SRS. Coding, Software Quality Assurance, Testing: Software testing, different testing techniques, component testing system testing, test automation. Software project management (SPM), Software Matrix (SM), Software Maintenance	15
	3 RD Year (Hons)	Akhil Kumar Das	Paper – IX: Data Base Management System:: Part - II Case Studie : Oracle RDBMS Package.	20

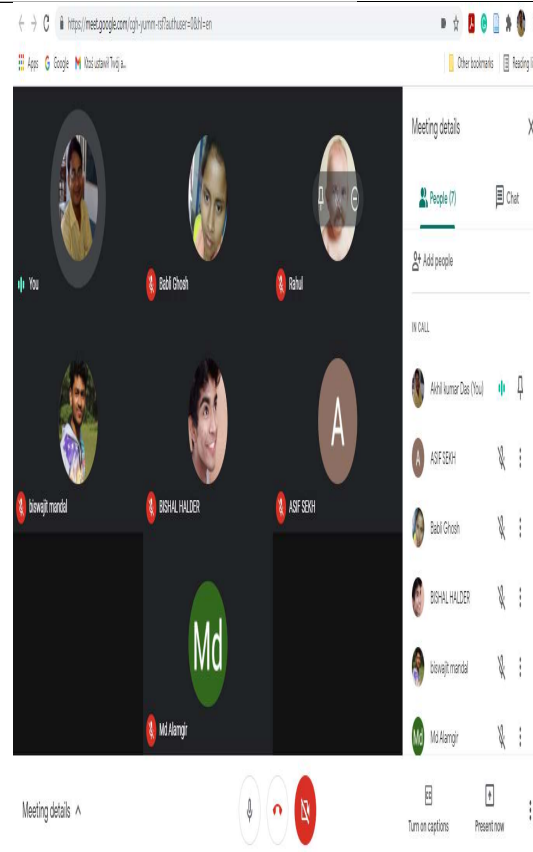
Representative teacher’s diary for a week: Akhil Kumar Das

Date	Platform with link	Semester	Paper	Topic
23/05/2021	3rd year,B.Sc,DBMS Sunday, May 23 · 9:30 – 11:30am Google Meet joining info Video call link: https://meet.google.com/adx-xkmf-hpv	3 rd Year	IX: DBMS-Lab	Data Base Management System: Practical: Implement the key and different constraints. Q&A Session
24/05/2021	B.Sc(H)_BCA(H) 2nd Sem Data Structures class Monday, May 24 · 3:00 – 5:00pm Google Meet joining info Video call link: https://meet.google.com/etb-nxqw-ddt	Sem- 2	DC3: a) DSA	Stacks: Conversion of these expressions from one to another; Applications of stack; Limitations of Array representation of stack.
	5th sem,BCA Monday, May 24 · 9:30 – 11:30am Google Meet joining info Video call link: https://meet.google.com/wrd-czuv-mre	5 th sem(Non cbsc)	Course -55	Models: Waterfall spiral, prototyping Software process, software requirement specifications (SRS)
25/05/2021	BSc_BCA_4th sem Tuesday, May 25 · 5:00 – 7:00pm Google Meet joining info Video call link: https://meet.google.com/ppg-mjrt-ecw	Sem- 4	DC9:a)	Relational Database Design: Canonical Cover; Decomposition to 1NF, 2NF, 3NF and BCNF Using FD; Lossless Join Decomposition Algorithm; Dependency preservation.
26/05/2021	BSc_BCA_DBMS Wednesday, May 26 · 5:00 – 7:00pm Google Meet joining info Video call link: https://meet.google.com/nyz-pgpy-nhb	Sem-4	DC9:b)	SQL: Order by Clause, Aggregate Function and Group by Clause; Nested Sub Queries; Correlated Sub Queries; Views (Insert-Able and Updatable).

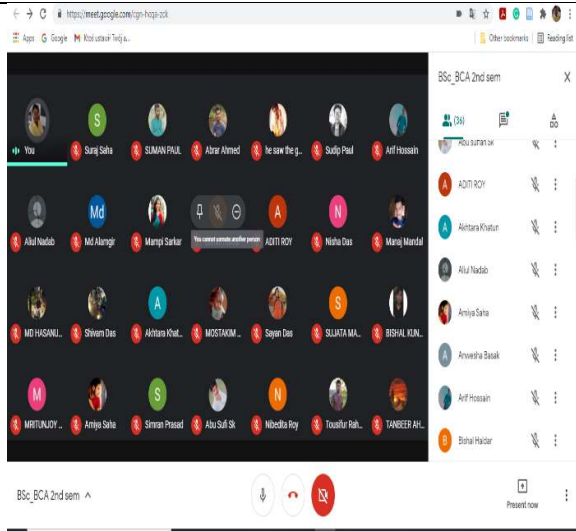
27/05/2021	BCA_B.Sc 2nd sem,DL Thursday, May 27 · 9:30 – 11:30am Google Meet joining info Video call link: https://meet.google.com/xfk-tibn-edq	Sem-2	DC4: b) Digital Logic Lab	Digital Logic System: Different adder circuits, BCD Adder, Adder/Subtractor, ripple carry adder, Parallel Adder, Carry lookahead adder.
28/05/2021	3rd BSc,DBMS Friday, May 28 · 10:00am – 12:00pm Google Meet joining info Video call link: https://meet.google.com/uqv-duio-dwm	3 rd year	IX: DBMS-Lab	Data Base Management System: Practical: Ordering, Aggregate functions- max, min, avg, count, sum; Group by, subquery;
29/05/2021	B.Sc_BCA,2nd sem,DSA Saturday, May 29 · 10:00 – 10:15am Google Meet joining info Video call link: https://meet.google.com/udf-brvq-cws	Sem- 2	DC3: a) DSA	Stacks: Applications of stack; Limitations of Array representation of stack.



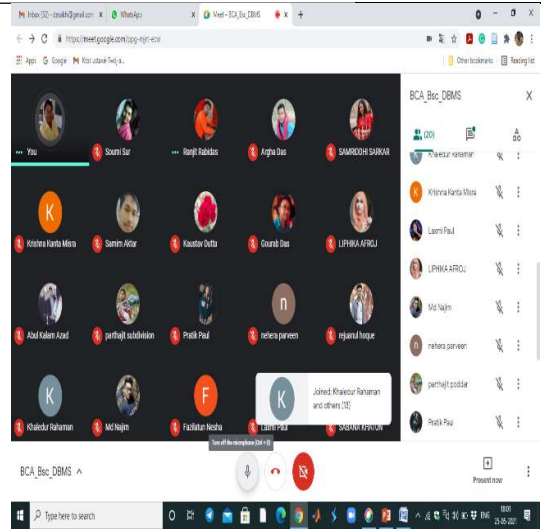
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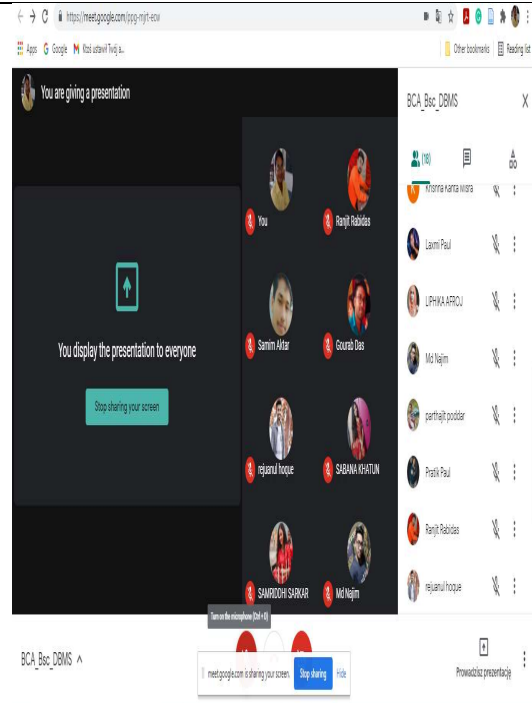
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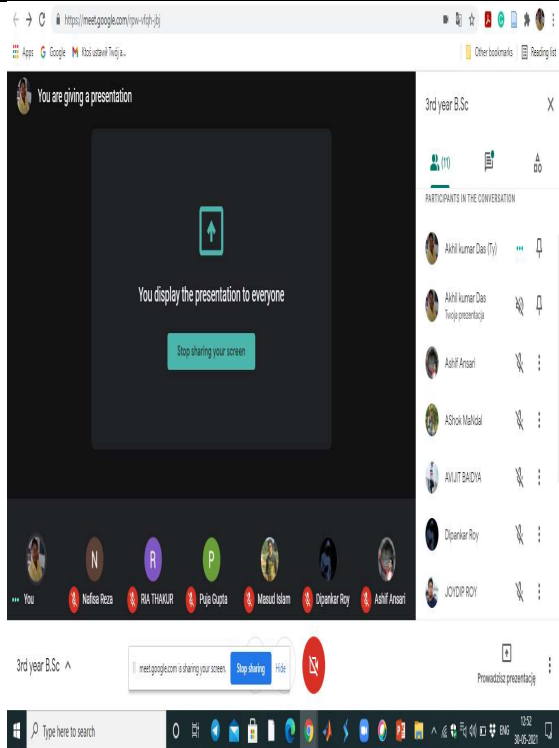
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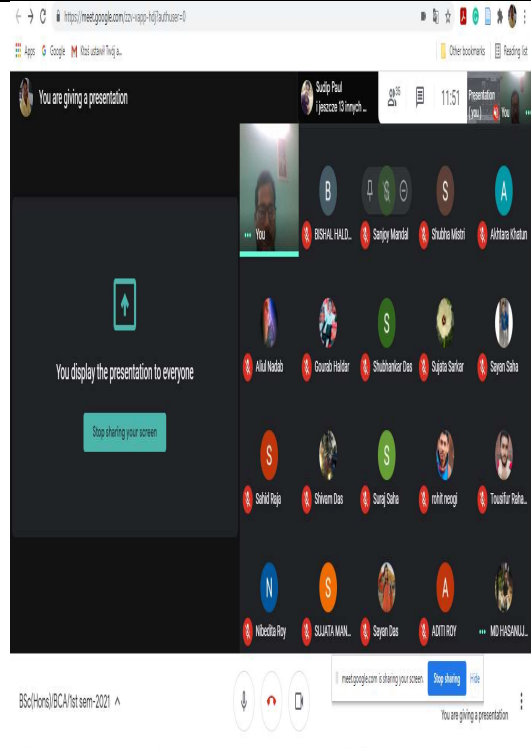
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27-5-2021



28-5-2021



29-5-2021

(Akhil Kumar Das)
Assistant Professor
Department of Computer Science
GourMahavidyalaya

Academic Quarter	Class	Name Of The Faculty	Topic To Be Covered	No. of Lectures
Q1				
July 20 - September 20	1 ST SEM (Hons.)	Ekram Alam	DC1: Discrete Mathematics: Part - I Graph Theory :Basic Terminology, Models and Types, multi-graphs and weighted graphs, Graph Representation, Graph Isomorphism, Connectivity, Euler and Hamiltonian Paths and Circuits,	15
	1 ST SEM (Hons.)	Ekram Alam HONS. (THEORY+ PRACTICAL) SYLLABUS TOPICS As per ALLOTTED	DC2:b) C Programming Lab : Part - I Introduction: Basic Structure, Algorithms, Flowcharts, Structured programming constructs. C Programming elements: Character sets, Keywords, Constants, Variables, Data Types, Operators- Arithmetic, Relational, Logical and Assignment; Increment and Decrement and Conditional Operator, Precedence and Associations; Expressions, type casting. Comments, Functions, Storage Classes, Bit manipulation, Input and output. C Pre-processor: File inclusion, Macro substitution. Statements: Assignment, Control statements- if, if else, switch, break, continue, goto, Loops-while, do_while, for. Functions: Argument passing, return statement, return values and their types, recursion	20
	3 RD SEM (Hons.)	Ekram Alam	DC6: (a & b) Operating System : Part I Introduction Basic OS functions, types of operating systems: batch systems–multiprogramming systems, time sharing systems; Operating System Organization: Processor and user modes, kernels, system calls and system programs. Process System view of the process and resources, process hierarchy, threads, threading issues. Process Scheduling: Scheduling criteria, Pre-emptive and non-preemptive scheduling, Long term, short term and medium term, FCFS, SJF, SRTF, Priority scheduling, Round Robin, Multilevel Queue Scheduling, Multilevel Queue Feedback Scheduling. Process Synchronization: Concurrent Processes, critical section, semaphores and application, methods for inter-process communication;	50
	3 RD Year (Hons.)	Ekram Alam	Paper – VII Group – A : Microprocessor: Part - I Evolution of Microprocessor: Architecture of 8 bit microprocessor, Machine Language Instructions, Addressing Modes, Instruction Formats, Instruction Sets, Instruction Cycle, Clock Cycles	20
	4 th Sem (BCA Non CBCS)	Ekram Alam	Course 44: Data Communication And Computer Networking: Part I Introduction: Goal and application of n/W, Computer N/W and distributed system. Review of transmission media characteristics, Data encoding and modulation techniques, Modem. The OSI model. Data link controls: Polling, Multiplexing, Flow control, Error control, Error detection and correction hamming and polynomial codes, HDLC. Switched N/W: Ckt, Msg and packet switching and congestion control.	15

Q2

Oct20-Dec20	1 ST SEM (Hons.)	Ekram Alam	DC1: Discrete Mathematics: Part - II Trees, Basic Terminology and properties of Trees, Binary tree, Introduction to Spanning Tree.	15
	1 ST SEM (Hons.)	Ekram Alam	DC2:b) C Programming Lab : Part - II Arrays: String handling with arrays, String handling functions. 1D Arrays, 2D Arrays. Pointers: Definition and initialization, Pointer arithmetic, Pointers and arrays, String functions and manipulation, Dynamic storage allocation. User defined Data types: Structures. Structure arrays, Pointers to Functions and Structures, Unions File Access: Opening, Closing, I/O operations.	20
	3 RD SEM (Hons.)	Ekram Alam	DC6: (a & b) Operating System : Part II Deadlock: Definition, Prevention, Avoidance, Detection, Recovery, Banker's algorithm. Memory Management: Physical and virtual address space; memory allocation strategies –fixed and variable partitions, paging, segmentation, virtual memory File and I/O Management: Directory structure, file operations, file allocation methods, disc management.	50
	3 RD Year (Hons)	Ekram Alam	Paper – VII Group – A : Microprocessor: Part - II Timing Diagrams, Interrupts, DMA, Bus Standards and types, Interfacing concepts- Memory Interfacing, I/O Interfacing and Ports – Keyboard Interfacing, Display Interfacing, Storage Device Interfacing	20
	4 th Sem (BCA Non CBCS)	Ekram Alam	Course 44: Data Communication and Computer Networking: Part II Routing: Adaptive and non-adaptive routing, board cast routing. Congestion control techniques. Broadcast N/W: Medium access control strategies, Packet radio and satellite N/W. LAN: LAN topologies, Ethernet, Token Bus, Token Ring and FDDI Networks x .25. Queuing theory and delay analysis. Internetworking: Bridge, gateways and Routine x.75, TCP/IP, IP. addressing schemes, Routing on the Internet, ITP,SMTP ,Telnet and Rlogin Network security and authentication.	15

Q3

Jan21-March21	2 nd SEM (Hons.)	Ekram Alam	DC3: (a & b) Data Structure & Algorithm: Part I Trees: Introduction to Tree as a data structure; Binary Trees (Insertion, Deletion, Recursive and Iterative Traversals on Binary Search Trees; Height-Balanced Trees (Various operations on AVL Trees). Searching and Sorting: Linear Search, Binary Search, Comparison of Linear and Binary Search, Sort: Bubble sort, Selection Sort,	25

	4 th SEM (Hons.)	Ekram Alam	DC10: a) Introduction to Microprocessor : Part I Introduction to Microcomputer based system: Concepts of Microprocessor and Microcontrollers and their advantages and disadvantages. Microprocessor Architecture and Memory Interfacing: Basic Architecture of Microprocessor 8085 and explanation of each block, Microprocessor 8085 pin out and signals, Addressing modes, Instruction Formats, Instruction Cycle, Clock Cycle, Multiplexed Address Data Bus, Control and Status signals, Microprocessor and Bus Timing, De-multiplexing of Address Data Bus, Generation of Control Signals for I/O and Memory, Basic concepts in Memory Interfacing, Address Decoding and memory Addresses.	30
	3 RD Year (Hons.)	Ekram Alam	Programming a Microprocessor, Interrupt Handling, Methods of Interrupts, Preliminary concepts of 8086 microprocessor	20
	5 th Sem (BCA Non CBCS)	Ekram Alam	Course 52 & 56: Web Technology With Java: Part I HTML: requirement of using HTML, HTML editor, create, edit, modify, and run HTML documents. Creating Web page, page skeleton. Adding Visual structure, formatting text, paragraph, pages adding context variables, input, output, Basic styles, creating lists. Adding links, adding images to a web page, using image map for tables for tables for page layout, creating frames, creating HTML forms. Using a scripting language adding layers, dynamically changing the styles. Using CGI, parl.	30
Q4				
April21- June21	2 nd SEM (Hons.)	Ekram Alam	DC3: (a & b) Data Structure & Algorithm: Part I Sorting: Insertion Sort, Merge Sort, Quick sort, Heap Sort, Comparison of Sorting Techniques. Hashing: Introduction to Hashing, Choosing a Hash Function, collision resolution techniques.	25
	4 th SEM (Hons.)	Ekram Alam	DC10: a) Introduction to Microprocessor : Part II Programming 8085: Instruction Set of 8085, Different Programming Techniques, Stack and Subroutines, Counter and Time Delays, Code Conversion, BCD Arithmetic and 16 bit Data Operation.	30
	4 th SEM BCA (Hons.)	Ekram Alam	DC8: Discrete Mathematics: Graph Theory : Basic Terminology, Models and Types, multi-graphs and weighted graphs, Graph Representation, Graph Isomorphism, Connectivity, Euler and Hamiltonian Paths and Circuits, Trees, Basic Terminology and properties of Trees, Binary tree, Introduction to Spanning Tree. Problems related to Minimum Spanning Tree (MST), all pair shortest path, graph traversals etc.. Matrix representation: Adjacency matrix, Incident matrix.	30
	5 th Sem (BCA Non CBCS)	Ekram Alam	Course 52 & 56: Web Technology With Java: Part II Fundamentals of Java : Data types, variables, arrays, operators, Inheritance, string Handling, Packages and interfaces Exception handling, Multithreaded Programming I/O, Applets, tagging applet in web pages Java Library Classes, The networking Classes and Interfaces.	30

Representative teacher's diary for a week: Ekram Alam

Date	Platform with link	Semester	Paper	Topic
23/05/2021	B.Sc(H)_BCA(H) 2nd Sem Data Structures class Sunday, 23 May · 15:00 – 17:00 Google Meet joining info Video call link: https://meet.google.com/etb-nxqw-ddt	Sem- 2	DC3 (a & b)	Data Structure & Algorithm : Trees- Introduction to Tree as a data structure; Binary Trees (Insertion, Deletion, Recursive and Iterative Traversals
24/05/2021	B.Sc(H)_BCA(H) 2nd Sem Data Structures class Monday, 24 May · 15:00 – 17:00 Google Meet joining info Video call link: https://meet.google.com/etb-nxqw-ddt	Sem- 2	DC3 (a & b)	Data Structure & Algorithm: Trees - Binary Search Trees- Introduction, Searching, Deletion, Construction.
	BCA 4th Sem Discreet Math Class Tuesday, 25 May · 15:00 – 17:00 Google Meet joining info Video call link: https://meet.google.com/drq-zqft-upj	Sem- 4 (BCA)	DC8	Discrete Mathematics : Trees, Basic Terminology and properties of Trees, Binary tree, Introduction to Spanning Tree. Problems related to Minimum Spanning Tree (MST), all pair shortest path, graph traversals etc..
25/05/2021	BCA 4th Sem Discreet Math Class Tuesday, 25 May · 15:00 – 17:00 Google Meet joining info Video call link: https://meet.google.com/drq-zqft-upj	Sem- 4 (BCA)	DC8	Discrete Mathematics : Problems related to Minimum Spanning Tree (MST), all pair shortest path, graph traversals etc., Kruskal's and Prim's Algorithm
26/05/2021	BCA 5th Sem Web Technology class Wednesday, 26 May · 15:00 – 17:00 Google Meet joining info Video call link: https://meet.google.com/jtt-rxdp-iyc	BCA 5 th Sem	52 & 56	Web Technology With Java: Applets, tagging applet in web pages
27/05/2021	B.Sc(H) 3rd Year and 4th Sem, Microprocessor Class Thursday, May 27 · 3:00 – 5:00pm Google Meet joining info Video call link: https://meet.google.com/grb-kquv-wto	Sem- 4 & 3 rd Year	DC10 & VII-A	Microprocessor : Conditional loop with flowchart, 16 bit data transfer instructions, LXI, INX, DCX instructions, memory related data transfer functions, direct and indirect addressing modes,
28/05/2021	B.Sc(H) 3rd Year and 4th Sem, Microprocessor Class Friday, 28 May · 15:00 – 17:00 Google Meet joining info Video call link: https://meet.google.com/grb-kquv-wto	Sem- 4 & 3 rd Year	DC10 & VII-A	Microprocessor : Programs related memory data transfer and 16 bit data, Addition and subtraction with memory, RLC, RAL, RRC, RAR instructions, CMP and CPI instructions;
29/05/2021	BCA 5th Sem Saturday, 29 May · 15:00 – 17:00 Google Meet joining info Video call link: https://meet.google.com/jtt-rxdp-iyc	BCA 5 th Sem	52 & 56	Web Technology With Java: Applets Programming doubt clearing class with some more examples, Java Interface

25/05/21

← About this call

People Information

ADD OTHERS

Share joining information

IN CALL

- Ranjit Rabidas (You)
- Ekram Alam
- Ekram Alam (Presenta...
- Gourab Das
- parthajit poddar
- Pratik Paul
- rejuanul hoque
- Samim Aktar

26/05/2021

← About this call

People Information

Share joining information

IN CALL

- biswajit mandal (You)
- Babli Ghosh
- BISHAL HALDER
- Debanka Barua
- Dibakar Barman
- Ekram Alam
- Ekram Alam
- Md Alamgir
- Pinki Gayen
- Sidharthya Mandal

24/05/2021

← About this call

People Info

ADD OTHERS

Share joining info

IN CALL

- Allul Nadab (You)
- Abrar Ahmed
- Abu sufian Sk
- ADITI ROY
- Ajom Igbal
- Akhara Khatun
- Allul Nadab
- Anwasha Basak
- Arif Hossain
- BISHAL HALDAR
- BISHAL KUNDU
- Depambita Soren
- Ekram Alam
- Ekram Alam (Presenta...
- Gourab Haldar
- Loknath Mandal
- Mampi Sarkar
- Manaj Mandal
- Mostaffjur Rahaman
- MOSTAKIM SK
- MRTUNJOY KARMAK...
- Nandini Bhadury
- Nibedita Roy
- Nisha Das
- Purobi Rajbanshi
- Sahid Raja
- Sayan Das
- Shivam Das
- Shubha Mistri
- Sudip Paul
- SUJATA MANDAL
- TANBEER AHMAD
- Tousifur Rahaman
- Ujjwal Ghosh

23/05/2021

Meet - B.Sc(H)_BCA(H) 2nd Sem Data Structure class

16:03

Participants: Akzar Ahmed, Allul Nadab, Samil Mandal, Ranjit Rabidas, Nibedita Roy, Nisha Das, Shubha Mistri, Tiashir Ghosh, Mostaffjur Rahaman, Rimi Mandal, Sanjay Saha, Sayan Das, Saman Paul, BISHAL KUNDU, MOSTAKIM SK, Anwasha Basak, Amiya Saha, Loknath Mandal, Sanjoy Mandal, Rousan Jaman, Abu sufian SK, SUJATA MANJ..., Ujjwal Ghosh, Akhara Khatun, Nandini Bhadu..., Sudip Paul, Manaj Mandal, Sahid Raja, Shivam Das, Tousifur Raha..., Sahid Raja, MRTUNJOY K..., Depambita So..., TANBEER AH..., ADITI ROY

29/05/2021

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People Information

ADD OTHERS

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IN CALL

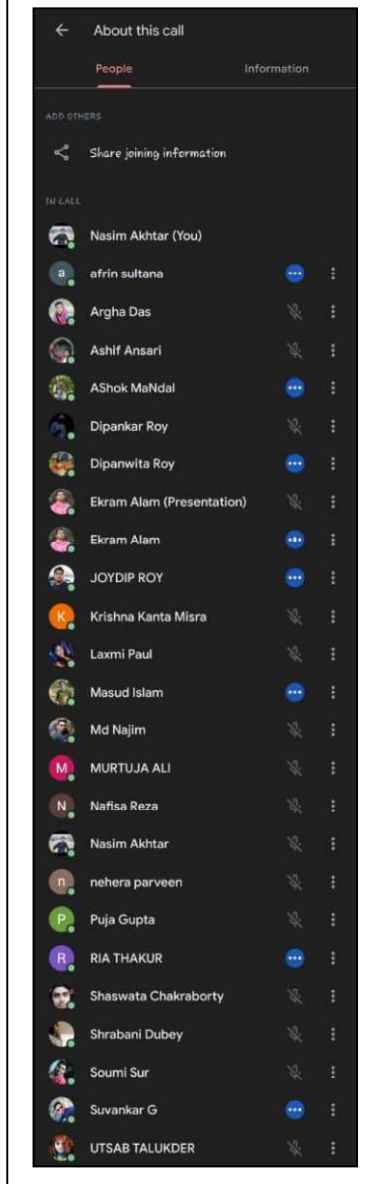
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- Babli Ghosh
- BISHAL HALDER
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- Dibakar Barman
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- Ekram Alam
- Pinki Gayen

24/05/2021

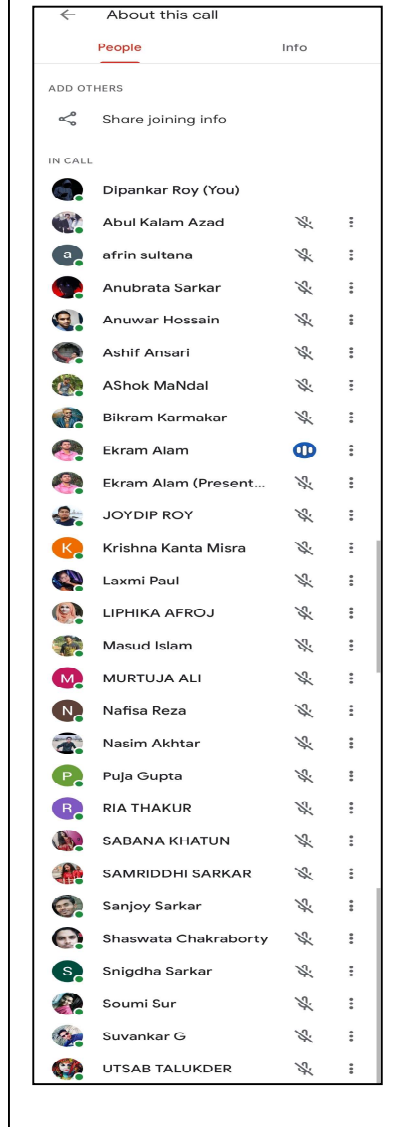
Meet - BCA 4th Sem Discreet Math Class

Participants: Ranjit Rabidas, Samim Aktar, parthajit poddar, Toufik umar, Rousan Jaman, Pratik Paul, rejuanul hoque

27/05/2021



28/05/2021



(Ekram Alam)
Assistant Professor
Department of Computer Science
Gour Mahavidyalaya

ACADEMIC QUARTER	CLASS	NAME OF THE TEACHER	TOPIC TO BE COVERED	NO OF LECTURES
Q1				
JULY 20 TO SEPTEMBER 20	1ST SEMESTER (GENS.)	Dr Subhendu Chatterjee GENERAL (THEORY+ PRACTICAL) SYLLABUS TOPICS ARE TO BE ALLOTTED	DC1: Computer Fundamentals: Introduction to Computer and Problem Solving: Information and Data Hardware: CPU, Primary and Secondary storage, Cache Memory, I/O devices, Bus structure, BIOS Software: System and Application. Introduction to Programming Languages: Machine Language, Assembly Language, High Level Language. Problem Solving: Flow Charts and Pseudo codes.	20
JULY 20 TO SEPTEMBER 20	3rd SEMESTER (GENS.)	Dr Subhendu Chatterjee GENERAL (THEORY+ PRACTICAL) SYLLABUS TOPICS ARE TO BE ALLOTTED	SEC-1: Digital System Design: Number Systems and Codes: Number representation: Weighted Codes, Non-weighted codes, Positional, Binary, Octal, Hexadecimal, Binary Coded Decimal (BCD), Conversion of bases. Complement notions. Binary Arithmetic, Binary Codes: Gray, Alphanumeric, ASCII, EBCDIC; Single Error-Detecting and Correcting Codes, Hamming Codes, Fixed point, Floating point representation. Boolean Algebra: Fundamentals of Boolean Algebra, Switches and Inverters, Functionally Complete Gates (AND, OR, NOT), NAND, NOR, Switching function and Boolean Function. De Morgan's Theorem, Min-term, Max term, Truth tables and minimization of switching function up to four variables, Algebraic and K-map method.	20
JULY 20 TO SEPTEMBER 20	3rd Year (Hons.)	Dr Subhendu Chatterjee HONOURS (THEORY+ PRACTICAL) SYLLABUS TOPICS ARE TO BE ALLOTTED	Paper-VII, Group: C Data Communication & Networking: Data Communications; Different topologies of networking; Transmission Media; Network: Protocol and standards; Analog & Digital Signals, Periodic & Nonperiodic signals, Time and Frequency Domain; Bandwidth, Data rate, signal rate.	20
JULY 20 TO SEPTEMBER 20	3rd Year (Gens.)	Dr Subhendu Chatterjee GENERAL (THEORY+ PRACTICAL) SYLLABUS TOPICS ARE TO BE ALLOTTED	Paper-V Group B: Networks and Internet: Concepts of centralized and distributed computing; advantages of networking; layered Architecture; OSI and TCP/IP model:	10
JULY 20 TO SEPTEMBER 20	3rd SEMESTER (BCA)	Dr Subhendu Chatterjee BCA (THEORY+ PRACTICAL) SYLLABUS TOPICS ARE TO BE ALLOTTED	COURSE 31: SYSTEM PROGRAMMING: Assembler: Algorithm of 1-pass and 2-pass assembler, data structure and implementation details, relocatable assemble etc. Macro Processor: Definition, Expansion, nested macro definition and call data structure and implementation details, conditional macro. Linker: Definitions, public and external tables, linker algorithms, relocating and linking library	20
Q2				

Oct20 - Dec20	1 ST SEMESTER (GENS.)	Dr Subhendu Chatterjee GENERAL (THEORY+ PRACTICAL) SYLLABUS TOPICS ARE TO BE ALLOTTED	DC1: Computer Fundamentals: System Software: Classifications- Operating Systems (OS); Translators – Compilers and Interpreters (concepts only), Pre-processors, Assemblers, Loaders, Linkers other utilities. Virus: Concept, Detection and Protection Multimedia: Basic Concept, associated hardware and software Object Oriented Paradigm: Basic characteristics, Definition, Brief comparison with other types of programming paradigms.	20
Oct20 - Dec20	3 rd SEMESTER (GENS.)	Dr Subhendu Chatterjee GENERAL (THEORY+ PRACTICAL) SYLLABUS TOPICS ARE TO BE ALLOTTED	SEC-1: Digital System Design: Digital Electronics: Combinational Circuits: Realization of Boolean expression using AND, OR and NOT Gate, Half and Full Adder/ Subtractor, Data selectors/ multiplexers –function realization, Decoders: function realization, De-multiplexer, Encoder, Priority Encoder, Parity bit Generator/checker, Code Converters. Sequential Circuits: Model of Sequential computing, Difference between Combinational and Sequential circuit, RS-Latch: using NAND and NOR Gates, Flip Flops - SR, JK, D, T, Level Trigger and Edge Trigger, Excitation Functions of each flip-flops, Application of Flip-flops: Asynchronous Counter (UP/DOWN) up to 3 bit, Registers: Registers with parallel load, Shift Registers.	20
Oct20-Dec20	3 rd Year (Hons.)	Dr Subhendu Chatterjee HONOURS (THEORY+ PRACTICAL) SYLLABUS TOPICS ARE TO BE ALLOTTED	Paper-VII, Group: C Data Communication & Networking: Serial and parallel transmission, Simplex, half duplex and duplex transmission, Multiplexing : FDM, TDM and Application, Different kinds of modulation and encoding; Error : Different types of Errors and their detection, Concepts of Centralized and Distributed Computing;	20
Oct20-Dec20	3 rd Year (Gens.)	Dr Subhendu Chatterjee GENERAL (THEORY+ PRACTICAL) SYLLABUS TOPICS ARE TO BE ALLOTTED	Paper-V Group B: Networks and Internet: Basic features; LAN and WAN; simple PC based networked Examples: Block diagram, mode of operation and characteristic features.	10
Oct20-Dec20	3 rd SEMESTER (BCA)	Dr Subhendu Chatterjee BCA (THEORY+ PRACTICAL) SYLLABUS TOPICS ARE TO BE ALLOTTED	COURSE 31: SYSTEM PROGRAMMING: Loaders: Bootstrap loader. Absolute and relocating and linking library. Loaders: Bootstrap loader, Absolute and relocating loader, Implementation of absolute and relocatable loader etc. Introduction to compilers: Introductions, different phases and their working principles Editors, debuggers, memory resident programs. Viruses, practical example of linking and relocation of common operating systems.	20
Q3				
Jan 21-March21	3 rd Year (Gens.)	Dr Subhendu Chatterjee	Paper-V Group B: Networks and Internet:	10

		BCA (THEORY+ PRACTICAL) SYLLABUS TOPICS ARE TO BE ALLOTTED	Internet: What is Internet, Basics of Web site, WWW, Browser, HTML- Tags and Features; Internet Addressing: Physical, Logical, Port; servers, clients, Port, Domain Name Server (DNS); Accounts; ISP.	
	3rd Year (Hons.)	Dr Subhendu Chatterjee BCA (THEORY+ PRACTICAL) SYLLABUS TOPICS ARE TO BE ALLOTTED	Paper-VII, Group: C Data Communication & Networking: Advantages of Networking; Layered Architecture: OSI Architecture, Basic Features, LAN, MAN and WAN; Simple PC based Network: Example, Block Diagram, Mode of Operation and Characteristic Features.	10
	4th SEMESTER (Gens)	Dr Subhendu Chatterjee GENERAL (THEORY+ PRACTICAL) SYLLABUS TOPICS ARE TO BE ALLOTTED	DC4: a) Database Management System: Introduction: DBMS, Advantages of DBMS; Applications of DBMS; Layered Architecture of Database, Data Independence; Data Models; Schemas and Instances; Database Languages;	20
Q4				
April 21-June 21	3rd Year (Gens.)	Dr Subhendu Chatterjee GENERAL (THEORY+ PRACTICAL) SYLLABUS TOPICS ARE TO BE ALLOTTED	Paper-V Group B: Networks and Internet: Connection: Dial Up, ISDN, ASDN, Cable modem; E-mail: Account, sending, receiving, Mailing List, IRC; Voice & video conferencing.	10
	3rd Year (Hons.)	Dr Subhendu Chatterjee HONS (THEORY+ PRACTICAL) SYLLABUS TOPICS ARE TO BE ALLOTTED	Paper-VII, Group: C Data Communication & Networking: Intranet and Internet, Servers and Clients, Ports, Domain Name Server (DNS), Accounts, Internet Service Providers; Dial Up Connection, ISDN, BISDN; Cable, Modem; E-Mail: Account, Sending, Receiving, Mailing List, IRC, Voice and Video Conferencing, WWW, Browsers.	10
	4th SEMESTER (Gens)	Dr Subhendu Chatterjee GENERAL (THEORY+ PRACTICAL) SYLLABUS TOPICS ARE TO BE ALLOTTED	DC4: a) Database Management System: Relational Model: Concepts of Relational Model; Relational Algebra; Integrity Constraints: Domain Constraints, Referential Integrity.	20

Representative teacher's diary for a week: Dr. Subhendu Chatterjee

Date	Platform with link	Semester / Year	Paper	Topic
23/05/21	B.Sc. Computer Science General – 3 rd Year Wednesday, May 23 · 19:00 – 21:00pm On Google Meet joining info Video call link: https://meet.google.com/zsa-ayan-heb	3 rd Year	V	Connection: Dial Up, ISDN, ASDN, Cable modem;
26/05/21	B.Sc. Computer Science General – 3 rd Year Friday, May 23 · 19:00 – 21:00pm On Google Meet joining info Video call link: https://meet.google.com/pud-cjsi-jvp	3 rd Year	V	E-mail: Account, sending, receiving,
27/05/21	B.Sc. Computer Science General – 4 th SEMESTER; Sunday, May 27 · 19:00 – 21:00pm On Google Meet joining info Video call link: https://meet.google.com/czz-zday-nfi	4 th Sem	DC4	Relational Model: Concepts of Relational Model; Relational Algebra;
28/05/21	B.Sc. Computer Science Honours – 3 rd Year Monday, May 28 · 19:00 – 21:00pm	3 rd Year	VII	Intranet and Internet, Servers

	On Google Meet joining info Video call link: https://meet.google.com/dgo-imy-arz			and Clients, Ports, Domain Name Server (DNS),
29/05/21	B.Sc. Computer Science General – 3 rd Year Wednesday, May 23 · 19:00 – 21:00pm On Google Meet joining info Video call link: https://meet.google.com/jkj-fxqu-dpn	3 rd Year	V	Mailing List, IRC; Voice & video conferencing.

Close Participants (7)

- Subhendu Chatt... (me, host)
- GA Galaxy A7 (2018)
- MS Md Sahansha
- MQ Micromax Q4260
- PP parthajit poddar
- SC Saraswan Chakrabortty
- W whyred

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Close Participants (5)

- Subhendu Chatt... (me, host)
- IX iPhone XR
- H Hiiii
- Rejuanul Hoque
- RaNjiT

Close Participants (5)

- Subhendu Chatt... (me, host)
- R RaNjiT
- PP parthajit poddar
- SC Saraswan Chakrabortty
- GD Gourab das

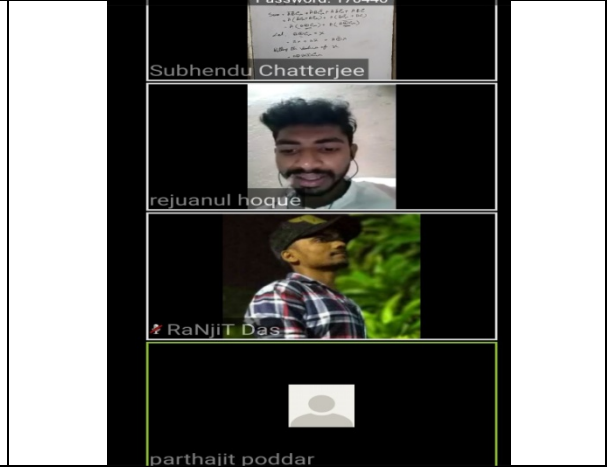
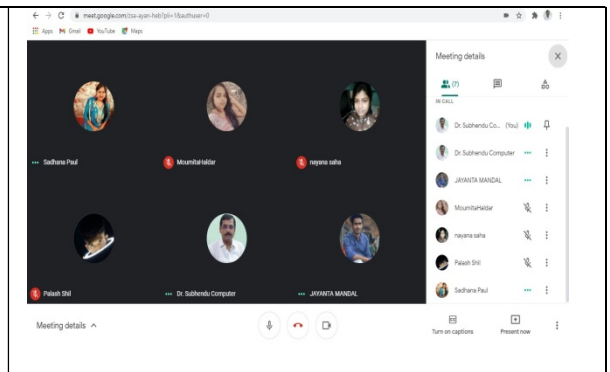
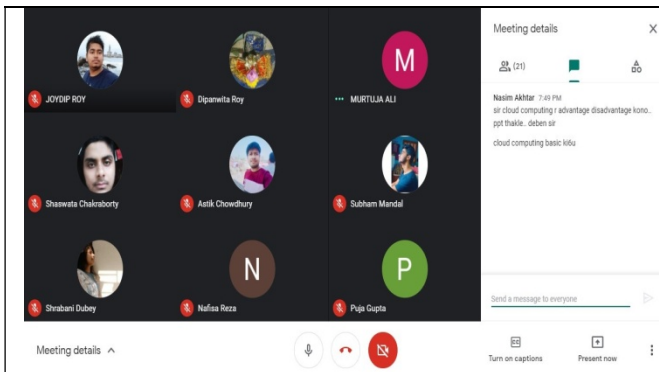
- Subhendu Chatt... (me, host)
- GA Galaxy A7 (2018)
- MS Md Sahansha
- MQ Micromax Q4260
- PP parthajit poddar
- SC Saraswan Chakrabortty
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- RX realme X

Meeting details

- Tanushri Barman
- neyana saha
- Sadhana Paul
- Palash Shi
- MD Sarif Reja
- Prashanta Mandal
- JAYANTA MANDAL
- Foodzrave[make up and more with A...

Meeting details

- Sadhana Paul
- JAYANTA MANDAL
- MD Sarif Reja
- Palash Shi
- Priyanka Halder
- Moumita Halder
- Ajy Baner
- Mam Halder
- Prashanta Mandal
- Tanushri Barman



Chatterjee

Dr. Subhendu Chatterjee
SACT
Department of Computer Science
Gour Mahavidyalaya

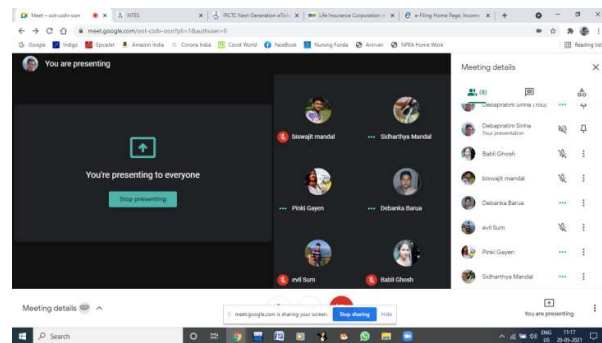
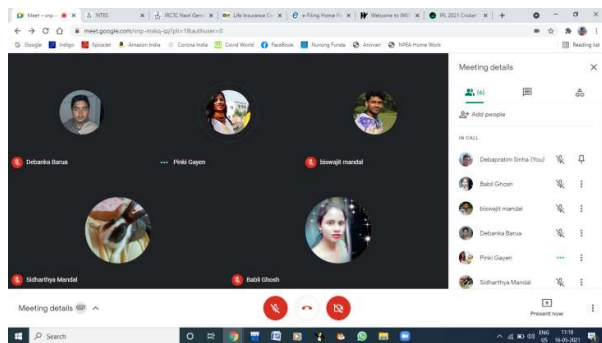
Academic Quarter	Class	Name Of The Faculty	Topic To Be Covered	No. of Lectures
Q1				
July 20 - September 20	1 st Sem. (Gen.)	Debapratim Sinha Syllabus topic as per allotted	DC1 : Computer Fundamentals – Part 2a System Software: Classifications - Operating Systems (OS) ; Translators – Compilers and Interpreters (concepts only) , Pre-processors , Assemblers Loaders , Linkers other utilities . Virus: Concept , Detection and Protection .	10
July 20 - September 20	3 rd Year (Hon.)	Debapratim Sinha Syllabus topic as per allotted	Group B : Computer Organization – II : – Part 1 Fixed and Floating Point Arithmetic : Addition , Subtraction , Multiplication and Division . ALU – Combinational ALU , 2’s Complement Addition , Subtraction Unit Memory Hierarchy : CPU Register , Cache Memory , Primary Memory , Secondary Memory and Virtual Memory .	15
July 20 - September 20	3 rd Sem (BCA)	Debapratim Sinha Syllabus topic as per allotted	Course–32 : Computer Oriented Numerical & Statistical methods – Part 1 Roots of equation: Iterative methods, bisection method, False position methods Newton-Raphson method, Solution of polynomial equations, solution of simultaneous equations, Gaussian eliminations, comparison of direct and iterative methods. Interpolation: Finite difference, polynomial interpolation. Differentiation and integration: Differentiation by polynomial fit. Trapezoidal and Simpson rules. Gaussian quadrature.	25
July 20 - September 20	5 th Sem (BCA)	Debapratim Sinha Syllabus topic as per allotted	Course–51 : Optimization Techniques (OT) – Part 1 Linear Programming: Graphical method for two dimensional problems – Central problem of linear programming various definitions – statements of basic theorem and properties simplex methods, primal and dual, dual simplex method, sensitivity analysis, transportation problem and its solution, assignment problem and its solution by Hungarian methods.	15
Q2				
Oct20-Dec20	1 st Sem. (Gen.)	Debapratim Sinha Syllabus topic as per allotted	DC1 : Computer Fundamentals – Part 2b Multimedia: Basic Concept, associated hardware and software Object Oriented Paradigm: Basic characteristics, Definition, Brief comparison with other types of programming paradigms.	10
	3 rd Year (Hon.)	Debapratim Sinha Syllabus topic as per allotted	Group B : Computer Organization – II : – Part 1 Fixed and Floating Point Arithmetic : Addition, Subtraction, Multiplication and Division. ALU – Combinational ALU, 2’s Complement Addition, Subtraction Unit Memory Hierarchy: CPU Register, Cache Memory, Primary Memory, Secondary Memory and Virtual Memory. Control Unit : Control Structure and Behavior, Hardwired Control and Micro programmed Control : Basic Concept, Parallelism in Microinstruction. I/O : Polling, Interrupts, DMA, I/O Bus and Protocol.	10
	3 rd Sem (BCA)	Debapratim Sinha	Course–32 : Computer Oriented Numerical & Statistical methods – Part 2 Numerical solution of differential Equations: Solution bu	25

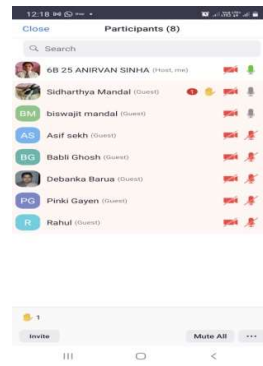
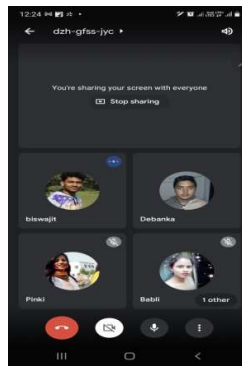
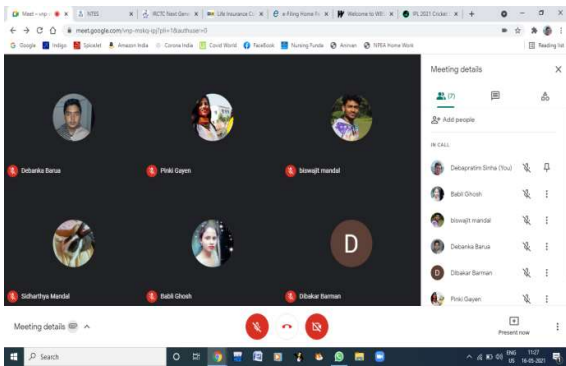
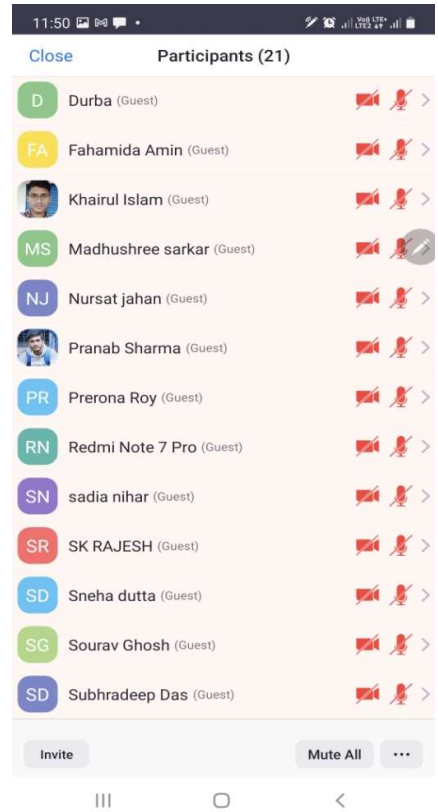
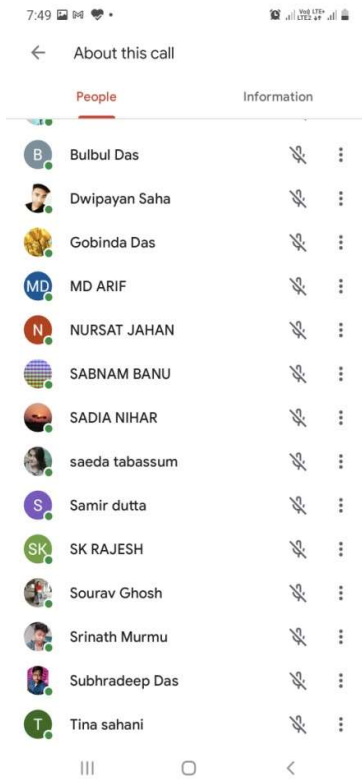
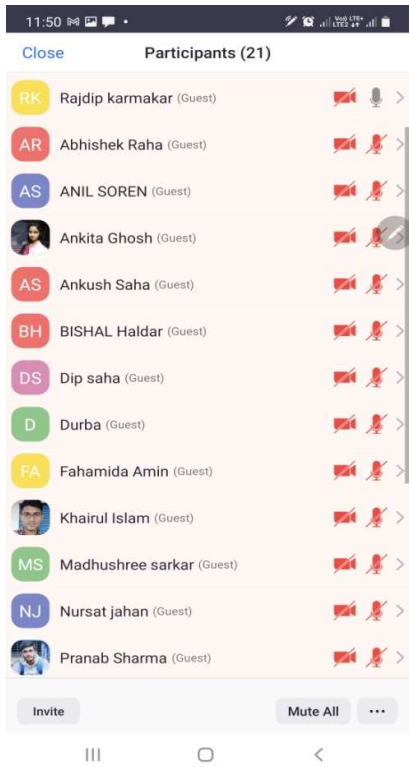
		Syllabus topic as per allotted	Taylor series. Euler's method. Predictor correction method, Runge-Kutta method. Statistical Methods: Sampling, frequency distribution, measure of central tendency and dispersion Moments, discrete Distributions, Binomial and poisson distributions, Correlation co-efficient, Overview of Simplex technique, test of significance – Chi square test, t-test and F-test.	
	5 th Sem (BCA)	Debapratim Sinha Syllabus topic as per allotted	Course–51 : Optimization Techniques (OT) – Part 2 Integer programming: Gomory cutting plane methods – Branch and Bound method. Inventory Theory: Costs involved in inventory problems – single item deterministic models – economic lot size models without shortages and with shortages having production rate infinite and finite.	20
Q3				
Jan21- March21	4 th Sem (General) Theory	Debapratim Sinha	DC4 (a): Database Management System : Part - 1 Introduction: DBMS, Advantages of DBMS; Applications of DBMS; Layered Architecture of Database, Data Independence; Data Models; Schemas and Instances; Database Languages;	10
	4 th Sem (BCA) Theory	Debapratim Sinha	Course–42 : Visual Programming with VB – Part 1 Introduction to Visual programming: Integrated development environment – the menu bar, the tool bar, the tool box, the properties window, form designer, form layout, creating saving, editing, running the project, Elements of user interface, programming basics in visual basics, visual development and event driven programming Customize the environment. Visual Basic: The language variable, constants, arrays, collections, procedures, function Return values, Control flow statements for loop, do loop, while loop, nested control structures. Working with forms appearance of forms, the start up forms, loading, showing and hiding forms, controlling one form within another. Design menus, programming menu commands, manipulating menus at runtime, building dynamic forms at runtime, drag and drop operation.	20
	4 th Sem (General) Practical	Debapratim Sinha	DC4 (b): DBMS With MySQL : Part - 1 SQL: Basic Structure, Data Definition, Constraints and Schema Changes; Basic SQL Queries (Selection, Insertion, Deletion, Update);	15
	4 th Sesm (BCA) Practical	Debapratim Sinha	Course – 46 : Laboratory VI (Visual Basic with Oracle) 1. Building different application programs using visual basics. 2. Building a calculator. 3. Program to create database and entering data to ORACLE from visual basics. 4. Programs to access data from ORACLE using visual basics. 5. Creating student enrollment programs.	15
Q4				
April21- June21	4 th Sem (General) Theory	Debapratim Sinha	DC4: Database Management System : Part - I Integrity Constraints: Domain Constraints, Referential Integrity. Relational Database Design: Problems of Un-Normalized Database; Functional Dependencies, Derivation Rules, Closure of FD Set, Decomposition to 1NF, 2NF, 3NF and BCNF Using FDs.	10
	4 th Sem. (BCA) Theory	Debapratim Sinha	Course–42 : Visual Programming with VB – Part 1 Basic ActiveX Control: The text box control, list box and combo box control, searching a drop operation. Basic	20

			Active X Control: The text box control, list box and combo box control, searching a sorted list. The scroll bar and slider control. Drawing with visual basics: Graphics control, coordinates system, graphics methods drawing texts, drawing lines and shapes, filling shapes, using circle methods Manipulation colors and pixels with visual basic. Database Programming with Visual Basics: The data control, the data control properties, data control methods, understanding relational concepts the primary key, foreign key, using visual basics data managers, validating data, entering data accessing fields in records sets. An introduction to SQL, using SQL, statements, attaching queries to a database.	
	4 th Sem (General) Practical	Debapratim Sinha	DC4 (b): DBMS With MySQL : Part - 2 Order by Clause; Complex Queries, Aggregate Function and Group by Clause; Nested Sub Queries; Correlated Sub Queries; Joined Relations; Set Comparisons.	10
	4 th Sesm (BCA) Practical	Debapratim Sinha	Course – 46 : Laboratory VI (Visual Basic with Oracle) 6. Creating inventory programs for student database. 7. Results processing using VB-ORACLE. 8. Creating salary sheet using VB-ORACLE. 9. Income tax calculation using VB-ORACLE. 10. Savings bank transaction program using VB-ORACLE.	20

Representative teacher’s diary for a week: Debapratim Sinha

Date	Platform	Semester	Paper	Topic
16-05-2021	Google Meet	BCA 5th	Course 51	Introduction to operation research
20-05-2021	Google Meet	BCA 5th	Course 51	Concept of transportation type problem
21-05-2021	Zoom	Gen. 4th	DC 4 a	Introduction to Database and DBMS
22-05-2021	Google Meet	BCA 5th	Course 51	North west corner method discussion
23-05-2021	Google Meet	Gen. 4th	DC 4 b	Concept of MySQL
24-05-2021	Zoom	BCA 5th	Course 51	Matrix minimum method discussion
26-05-2021	Zoom	Gen. 4th	DC 4 a	Layered architecture of DBMS
27-05-2021	Google Meet	Gen. 4th	DC 4 b	Data types in MySQL





Debapratim Sinha

(Debapratim Sinha)
 State Aided College Teacher
 Department of Computer Science
 Gour Mahavidyalaya

Academic Quarter	Class	Name Of The Faculty	Topic To Be Covered	No. of Lectures
Q1				
July 20 - September 20	3 RD SEM (Gen)	Shib Charan Chowdhury	<p>DC3: Data Structure using C : Introduction: Algorithms, ADT.</p> <p>Arrays: One dimensional and Two Dimensional Arrays, Row Major and Column Major ordering, different operations on array.</p> <p>Linked List: Singly and Doubly Linked List; Operations Like Insertion, Deletion, Searching etc.</p>	15
	Part-III B.Sc(Gen)	Shib Charan Chowdhury	<p>Group A: Database Management System Basic concepts: Advantages of DBMS, ANSI / SPARC architecture,</p>	10
Q2				
Oct20-Dec20	3 RD SEM (Gen.)	Shib Charan Chowdhury	<p>DC3: Data Structure using C : Stacks and Queues: Concepts of Stack and Queue; Insertion and Deletion of Elements; Array and Linked Representation: Prefix, Infix and Postfix Notation; Postfix Expression Evaluation, Infix to Postfix conversion. Searching: Sequential, Binary Search</p>	15
	B.Sc(Gen) Part-III	Shib Charan Chowdhury	<p>Group A: Database Management System physical conceptual and external models; Entity Relationship diagram(ERD); Relational Data models, Relational algebra,</p>	10
Q3				
Jan21- March21	2 nd SEM (Gen.)	Shib Charan Chowdhury	<p>DC2: Introduction to C Programming: Introduction: Basic Structure, Algorithms, Flowcharts, Structured programming constructs. C Programming elements: Character sets,</p>	50

			<p>Keywords, Constants, Variables, Data Types, Operators Arithmetic, Relational, Logical and Assignment; Increment and Decrement and Conditional Operator, Precedence and Associations; Expressions, type casting. Comments, Functions, Storage Classes, Bit manipulation, Input and output.</p> <p>C Pre-processor: File inclusion, Macro substitution.</p> <p>Statements: Assignment, Control statements- if, if else, switch, break, continue, goto, Loops while, do_while, for.</p>	
	4 th SEM (Gen.)	Shib Charan Chowdhury	<p>SEC-2: Microprocessor 8085: Introduction to Microcomputer based system: Microprocessor and Microcontrollers and their advantages and disadvantages. Microprocessor Architecture and Memory Interfacing: Basic Architecture of Microprocessor 8085 and explanation of each block, Microprocessor 8085 pin out and signals, Addressing modes, Multiplexed Address Data Bus, Control and Status signals, Microprocessor and Bus Timing, De-multiplexing of Address Data Bus,</p>	30
	B.Sc(Gen) Part-III	Shib Charan Chowdhury	<p>Group A: Database Management System Query languages: SQL, File organization: Sequential, indexed sequential ; Query Languages: Relational Algebra;.</p>	10
Q4				
April21- June21	2 nd SEM (Gen.)	Shib Charan Chowdhury	<p>DC2: Introduction to C Programming: Functions: Argument passing, return statement, return values and their types, recursion Arrays: String handling with arrays, String handling functions. Pointers: Definition and initialization,</p>	50

			Pointer arithmetic, Pointers and arrays, String functions and manipulation, Dynamic storage allocation. User defined Data types: Structures. Structure arrays, Pointers to Functions and Structures, Unions File Access: Opening, Closing, I/O operations	
	4 th SEM (Gen.)	Shib Charan Chowdhury	SEC-2: Microprocessor 8085: Instruction Formats, Instruction Cycle, Clock Cycle, Generation of Control Signals for I/O and Memory, Basic concepts in Memory Interfacing, Address Decoding and memory Addresses. Interfacing I/O Devices: Basic Interfacing concepts, Peripheral I/O instructions (I/O mapped I/O), Programming 8085: Instruction Set of 8085, Different Programming Techniques, Stack and Subroutines, Counter and Time Delays	30
	B.Sc(Gen) Part-III	Shib Charan Chowdhury	Group A: Database Management System Query Languages: Relational Algebra; Functional dependencies and normal forms: 1NF, 2NF, 3NF, and BCNF. SQL; Security; Integrity.	15

Representative teacher's diary for a week:

Shib Charan Chowdhury

Date: 31/05/2021 to 05/06/2021

Date	Platform with link	Semester	Paper	Topic
31/05/2021	09am-10am Google Meet DBMS Class Google Meet joining info Video call link: https://meet.google.com/hwx-wnyi-hws	B.Sc. 3 rd Year General	Paper-V Group-A	Database Management System : Query Languages: Relational Algebra

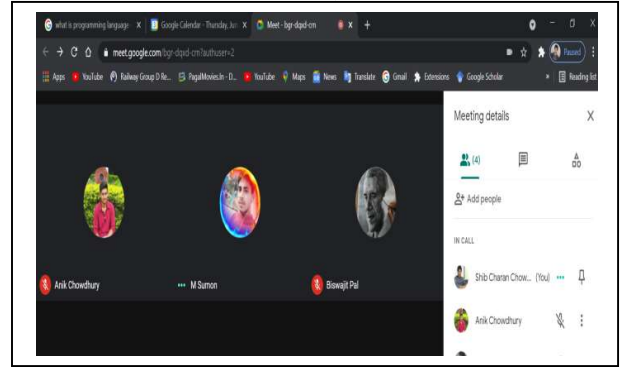
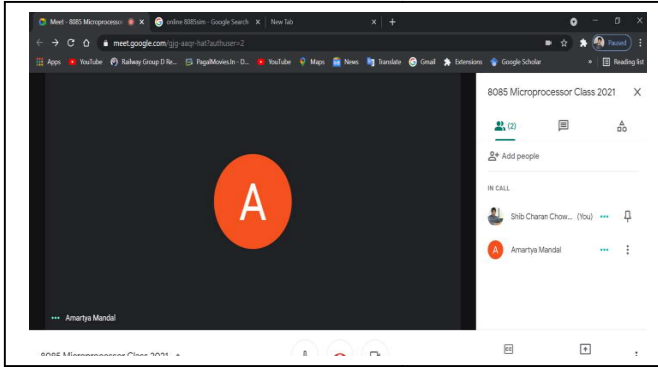
01/06/2021	9:00 – 11:00am Google Meet joining info Video call link: https://meet.google.com/xjk-pgdx-hpf	Sem2 Gen CBCS	DC2:(a)	Introduction to C Programming Functions :Basic Concepts
02/06/2021	8:00 – 10:00am Google Meet joining info Video call link: https://meet.google.com/gjq-aaqr-hat	Sem4 Gen CBCS	Sec-2	Microprocessor 8085: Programming 8085: Instruction Set of 8085, Different Programming Techniques
03/06/2021	7:00 – 9:00pm Google Meet joining info Video call link: https://meet.google.com/bgr-dqxd-crn	Sem2 Gen CBCS	DC2(a)	Introduction to C Programming Functions: Argument passing, return statement, return values and their types,
04/06/2021	3:30 – 5:00pm Google Meet joining info Video call link: Video call link: https://meet.google.com/fxt-tafy-agp	Sem-2 Gen CBCS	DC-2(b) lab	Introduction to C Programming Functions: Argument passing, return statement, return values and their types,
04/06/2021	9:30 – 11:00am Google Meet joining info Video call link: https://meet.google.com/uuf-ijgh-iku	Sem-4 Gen CBCS	SEC-2	Microprocessor 8085: Programming 8085: Instruction Set of 8085, Different Programming Techniques

31/05/2021
B.Sc. 3rd year General

01/06/2021
B.Sc. 2nd Semester General CBCS

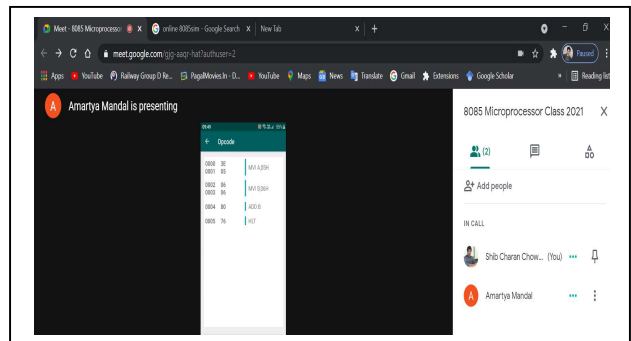
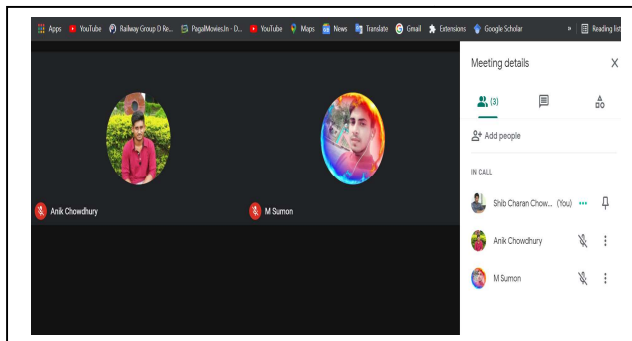
02/06/2021
B.Sc. 4TH Semester General CBCS

03/06/2021
B.Sc. 2nd Semester General CBCS



04/06/2021
B.Sc. 2nd Semester General CBCS

04/06/2021
B.Sc. 4TH Semester General CBCS



Shib Charan Chowdhury.

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