

PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF
ENGINEERING & TECHNOLOGY, BARGARH



PROGRESS REGISTER

Session-2022-2023

Discipline: Electrical Engg.

Semester: 5th

Subject: Digital Electronic & Microprocessors.

Name of the Teaching Faculty: Niranjan Behara

Subject: DIGITAL ELECTRONICS (DIGITAL) No. of Days/per week class allotted 02

Semester From Date: 15.09.22 To Date: 21.01.23 No. of Weeks: 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
16.09.22	Basic of Number System	Basic of Number System	Basic of number system Decimal, Binary octal and Hex-dec	
17-19.22	Binary Algebra	Binary Algebra	Binary addition subtraction, multiplication, and division	
18.09.22	1's complement and 2's complement	1's complement and 2's complement	1's complement and 2's complement Subtraction	
23.09.22	Weighted and un-weighted code	Codes, BCD codes, XS-3 and Gray	Different codes XS-3 code and Gray	
24.09.22	Imp. of Parity bit	Importance of Parity bits	Parity bit	
28-19.22	Revision of number system	Revision of number system	Revision of number system	
30.09.22	Logic gates	Logic gates	Logic gate with truth table	
14.10.22	Logic gate	Logic gate	NAND, NOR X-OR, X-NOR gates	
15.10.22	Universal gate	Universal gate	Universal gate	
19.10.22	Realization of all gate using universal gate	Realization of all gate using universal gate	Realization of all gate using universal gate	
21.10.22	Boolean Algebra	Boolean Algebra	Boolean Algebra	

Subject: DIGITAL ELECTRONICS (DIGITAL) No. of Days/per week class allotted 02

Semester From Date: 15.09.22 To Date: 21.01.23 No. of Weeks: 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
22.10.22	De-morgan theorem	De-morgan theorem	De-morgan theorem	
26.10.22	USE of Boolean Algebra	USE of Boolean Algebra	USE of Boolean Algebra	
28.10.22	K-map	K-map	Minimization of 2,3,4 variable k-map	
29.10.22	K-map	K-map	Minimization of expression using k-map	
12.11.22	Simplification of SOP and POS Logic Expressions	Simplification of SOP and POS Logic Expressions	Simplification using k-map	
14.11.22	Don't care in k-map	Don't care in k-map	Simplification expression having don't care	
15.11.22	Concept of Combinational Logic Circuit	Combinational Logic Circuit	Combinational Logic Circuit	
19.11.22	Half adder circuit	Half adder circuit	Half adder circuit	
21.11.22	Design of HA using NAND Gate	Design of HA	HA using NAND NOR gate only	
26.11.22	Design of HA using NOR Gate only	Design of HA	HA using NOR gate only	
29.11.22	Full adder	Full adder	Full adder operation	

Sec-A

Subject: DIGITAL ETC & MPC (DIGITAL) No. of Days/per week class allotted 02

Semester From Date: 15.09.22 To Date: 21.01.23 No. of Weeks: 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
02.12.22	Realize FA using two HA	FA using two HA	FA using two HA	
04.12.22	Half Subtractor circuit	Half Subtractor	Half Subtractor	
09.12.22	Full Subtractor circuit	Full Subtractor	Full Subtractor	
11.12.22	Operation of 4X1 multiplexer	4X1 multiplexer	multiplexers	
12.12.22	Operation of 1X4 demux	Demux	Demux	
18.12.22	Binary-decimal Encoder	Encoder	Encoder	
19.12.22	Magnitude Comparators	Magnitude Comparators	Magnitude Comparators	
23.12.22	Sequential logic - circuit	Sequential logic - circuit	Sequential logic - circuit	
26.12.22	Compare between sequential and combinational	Compare between sequential and combinational logic circuit	Compare between S.L.C and C.L.C	
30.12.22	Necessity of clock	Necessity of clock	Level clocking and edge clocking	
03.01.23	Clock SR FIF	Clock SR FIF	Clock SR FIF	

Subject: DEMPL DIGITAL No. of Days/per week class allotted _____

Semester From Date: 15.09.22 To Date: 21.01.23 No. of Weeks: 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
04.01.23	S-R FIF and J-K FIF	SR FIF and JK FIF	SR FIF and JK FIF and latch	
05.01.23	Race-around J-K FIF Condition MSJK FIF	Race-around Condition MSJK FIF	Race-around Condition MSJK FIF	
07.01.23	D and T FIF	D and T FIF	D and T FIF	
08.01.23	Application of FIF	Application of FIF	Application of FIF	
09.01.23	Counter	Counter	Counter	
10.01.23	Modulus of Counter	Modulus of Counter	Modulus of Counter	
11.01.23	Asynchronous Counter	Asynchronous Counter	Asynchronous Counter	
12.01.23	4 bit Synchronous Counter	4 bit Synchronous Counter	4 bit Synchronous Counter	
15.01.23	Distinguish between Synchronous and Asynchronous.	Synchronous and Asynchronous Counter	Synchronous and Asynchronous Counter	
16.01.23	Register	Register	Register	
18.01.23	Working of SISO SIPO, PISO and PIPO	Working of SISO SIPO, PISO and PIPO	Working of SISO SIPO, PISO and PIPO	

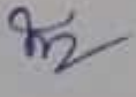
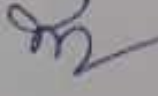
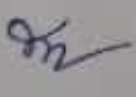
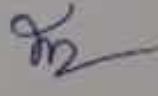
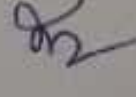
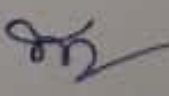
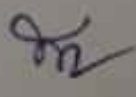
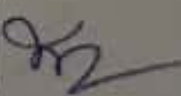
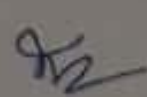
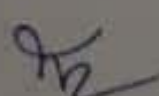
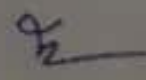
Subject: Digital ETC & MP (DEMP) No. of Days/per week class allotted 03Semester From Date: 15.09.22 To Date: 21.01.23 No. of Weeks: 18

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
15.09.22	Basic of Numbers System	Basic of Numbers System	Basic of Numbers System (Decimal, Binary, Octal and Hexa decimal)	
17.09.22	Binary Algebra	Binary Algebra	Binary Algebra	
19.09.22	1's complement and 2's complement	1's complement and 2's complement	1's complement and 2's complement	
20.09.22	Weighted and unweighted code	Weighted and unweighted code	Weighted and unweighted code	
22.09.22	Importance of Parity bits	Importance of Parity bits	Importance of Parity bits	
24.09.22	Revision of numbers System	Revision of numbers System	Revision of numbers System	
27.09.22	Logic gates	Logic gates	Basics Logic gates OR, AND, AND NOT	
29.09.22	Logic gate	Logic gate	Logic gate with truth NAND, NOR table XOR, X-NOR	
10.10.22	Universal gate	Universal gate	Universal gate	
11.10.22	Realization of all gates using universal gate	Realization of all gates using universal gate	Realization of all gates using universal gate	
13.10.22	Boolean Algebra	Boolean Algebra	Boolean Algebra	

Subject: Digital Etc & MP (DIGITAL) No. of Days/per week class allotted 13
Semester From Date: 15.10.22 To Date: 21.01.23 No. of Weeks: 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
15.10.22	De-Morgan theorem	De-Morgan theorem	De-Morgan theorem	
17.10.22	Use of Boolean Algebra	Use of Boolean Algebra	Use of Boolean Algebra	
18.10.22	K-map	K-map	K-map (2, 3 & 4 variable k-map)	
20.10.22	Minimization of expression using K-map	Minimization of expression using K-map	Minimization of expression using K-map	
22.10.22	Simplification of SOP and POS Logic Expressions	Simplification SOP and POS Logic Expressions	Simplification using K-map	
29.10.22	Don't care in K-map	Don't care in K-map	Simplification expression having don't care	
31.10.22	Concept of Combinational Logic Circuit	Concept of Combinational Logic Circuit	Concept of Combinational Logic Circuit	
01.11.22	Half adder circuit	Half adder circuit	Half adder circuit	
03.11.22	Design of HA using NAND gate	Design of HA	Design of HA using NAND gate	
07.11.22	Design of HA using NOR gate	Design of HA using NOR gate	Design of HA using NOR gate	
10.11.22	Full adder	full adder	full adder operation	

Subject: Digital ETC & MP (DIGITAL) No. of Days/per week class allotted 03Semester From Date: 15.09.22 To Date: 21.01.22 No. of Weeks: 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
12.11.22	Realise FA using two HA	Realise FA using two HA	FA using two HA	
14.11.22	Half Subtractor circuit	Half Subtractor circuit	Half Subtractor circuit	
15.11.22	Full Subtractor circuit	Full Subtractor circuit	Full Subtractor circuit	
17.11.22	Operation of 4x1 multiplexer	4x1 multiplexer	4x1 multiplexer	
19.11.22	Operation of 1x4 demux	1x4 demux	1x4 Demux	
22.11.22	Binary-decimal Encoder	Encoders	Encoders	
24.11.22	Magnitude comparator	Magnitude comparator	Magnitude comparators	
26.11.22	Sequential logic circuit	Sequential logic circuit	Sequential logic circuit	
30.11.22	Comparison bet ⁿ sequential and combinational logic circuit	Comparison bet ⁿ sequential and combinational logic circuit	Comparison bet ⁿ sequential and combinational logic circuit	
01.12.22	Necessity of clock	Necessity of clock	Necessity of clock	
03.12.22	CLOCK SR FF	CLOCK SR FF	CLOCK SR FF	

Subject: DEMP (DIGITAL)

No. of Days/per week class allotted 03

Sec-B

Semester From Date: 15.09.22

To Date: 31.01.23

No. of Weeks: 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
14.12.22	S-R FIF and J-K FIF	S-R FIF and J-K FIF	S-R FIF and J-K FIF Latch	
05.12.22	Race-around condition MSJK FIF	Race-around condition MSJK FIF	Race-around condition MSJK FIF	
06.12.22	D and T FIF	D and T FIF	D and T FIF	
08.12.22	Application of FIF	Application of FIF	Application of FIF	
10.12.22	Counter	Counter	Counter	
12.12.22	Modulus of Counter	Modulus of Counter	Modulus of Counter	
15.12.22	Asynchronous Counter	Asynchronous Counter	Asynchronous Counter	
17.12.22	4 bit Synchronous Counter	4 bit Synchronous Counter	4-bit Synchronous Counter	
04.01.23	Distinguished between Synchronous and Asynchronous	Distinguished between Synchronous and Asynchronous	Distinguished between Synchronous and Asynchronous	
05.01.23	Register	Register	Register	
07.01.23	Working of SISO, SIPO, PISO and PIPO	Working of SISO, SIPO, PISO and PIPO	Working of SISO, SIPO, PISO and PIPO	

PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF
ENGINEERING & TECHNOLOGY, BARGARH



PROGRESS REGISTER
Session-2022-2023

Discipline: Electrical Engg.

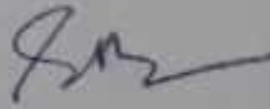
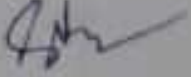
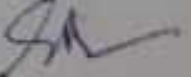
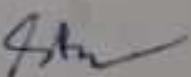
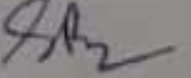
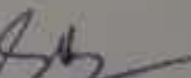

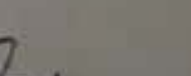

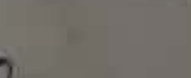

Semester: 5th

Subject: DEMP (Microprocessor)

Name of the Teaching Faculty: Subhasmita Bha'

Subject: DEMP (Section - A) No. of Days/per week class allotted 02

Semester From Date: 15.09.22 To Date: 21.01.23 No. of Weeks: 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
16.09.22	Introduction to Microprocessor & Microcomputer	Introduction to MP & MC	Introduction to MP & MC	
17.09.22	Architecture of 8085A MP	Architecture of 8085A MP	8085 MP Architecture	
18.09.22	Description of each block	Description of each block	Description of each block	
21.09.22	Pin Diagram of 8085 MP	Block diagram description	Block diagram description	
23.09.22	Pin diagram description	Pin diagram of 8085 MP	Pin diagram of 8085 MP	
24.09.22	Stack, Stack-Pointer & Stack top	Pin diagram	Pin diagram	
25.09.22	Interrupts	Stack, SP Stack top	Stack	
28.09.22	Discussion	Interrupts	Interrupts	
30.09.22	Opcode & Operand	Opcode & operand	Opcode & operand	
05.10.22	One byte, two byte, three-byte instruction	One-byte, two-byte & three-byte instruction	One-byte, two-byte & three-byte instruction	
07.10.22	Instruction set of 8085	Instruction set of 8085	Instruction set	

Subject: DEMP No. of Days/per week class allotted 02

Semester From Date: 15.09.22 To Date: 21.01.23 No. of Weeks: 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
09.09.22	Addressing mode	Addressing mode	Addressing mode	Jhr
12.09.22	Fetch cycle, Machine cycle, instruction cycle	Machine cycle	Machine cycle	Jhr
14.09.22	Revision	Revision	Revision	Jhr
15.09.22	Timing diagram of Memory read	Timing diagram of Memory read	Timing diagram of Memory read	Jhr
16.09.22	Timing diagram of Memory write MC	Timing diagram Memory write MC	Timing diagram of Memory write Machine cycle	Jhr
19.09.22	Timing diagram of I/O Read & write	I/O read & write MC	I/O Read & write Machine cycle	Jhr
21.09.22	Timing diagram of Instructions	Machine cycle of Instructions	Machine cycle of instruction	Jhr
22.09.22	Counter & delay	Counter & delay	Counter	Jhr
24.09.22	Simple assembly Language Programming	Programming	Programming	Jhr
28.09.22	Programming	Programming	Programming	Jhr
29.09.22	Basic Interface concept	programming	Programming	Jhr

Subject: DEMP No. of Days/per week class allotted 02
 Semester From Date: 15.09.22 To Date: 21.01.23 No. of Weeks: 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
12.11.22	Memory mapping & I/O Mapping	Basic interface concept	Interfacing	JR
15.11.22	Functional block diagram of 8255 PPI	Memory & I/O Mapping	Memory & I/O mapping	JR
19.11.22	Block diagram of 8255 Controller	Functional block diagram of 8255	8255 block diagram	JR
22.11.22	Application using 8255: Seven Segment LED display	Block diagram of 8255	Block diagram	JR
26.11.22	Revision	Seven segment LED display	Seven segment LED display	JR
29.11.22	Square wave generator	Revision	Revision	JR
04.12.22	Traffic light controller	Square wave generator & Traffic light control	Square wave generator & Traffic light control	JR
09.12.22	Overall Revision	Q & A Discussion	Q & A Discussion	JR
12.12.22	Revision & Q & A discussion	Revision & Q & A discussion	Revision & Q & A discussion	JR
18.12.22	Revision	Revision	Revision	JR
26.12.22	Revision	Revision	Revision	JR

Subject: DEMP (Section-B) No. of Days/per week class allotted 62
 Semester From Date: 15.09.22 To Date: 21.01.23 No. of Weeks: 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
15.09.22	Introduction to Microcontroller & Microprocessor	Introduction to μP & μC	Introduction to μP & μC	<i>[Signature]</i>
17.09.22	Architecture of 8085 μP	Architecture of 8085 μP	Architecture	<i>[Signature]</i>
19.09.22	Description of each block	Description of each block	Block diagram	<i>[Signature]</i>
20.09.22	Pin Diagram & description	Pin diagram of 8085	Pin diagram of 8085	<i>[Signature]</i>
22.09.22	Pin diagram	Pin diagram	Pin diagram	<i>[Signature]</i>
24.09.22	Stack & Stack pointer	Stack	Stack	<i>[Signature]</i>
27.09.22	Interrupts	Stack pointer	Stack pointer	<i>[Signature]</i>
29.09.22	Discussion	Interrupts	Interrupts	<i>[Signature]</i>
10.10.22	Opcode & Operand	Opcode & Operand	Opcode & Operand	<i>[Signature]</i>
11.10.22	Differentiate bet ⁿ 1 byte, 2 byte & 3 byte	1 byte, 2 byte & 3 byte instructions	1 byte, 2 byte & 3 byte instructions	<i>[Signature]</i>
13.10.22	Instruction Set of 8085 μP	Instruction Set of 8085 μP	Instruction set of 8085 μP .	<i>[Signature]</i>

Subject: DEMY No. of Days/per week class allotted 02
 Semester From Date: 15.09.22 To Date: 21.01.23 No. of Weeks: 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
15.10.22	Addressing Mode	Addressing Mode	Addressing Mode	Jm
17.10.22	Machine cycle	Addressing mode	Addressing mode	Jm
18.10.22	Timing diagram of Memory read MC	Timing diagram	Timing Diagram	Jm
20.10.22	Memory write MC	Memory write MC	Memory write MC	Jm
22.10.22	Timing diagram of 8085 instruction	Timing diagram of instruction	Timing diagram	Jm
29.10.22	Discussion	Discussion	Discussion	Jm
31.10.22	Counter & Delay	Counter & Delay	Counter & Delay	Jm
01.11.22	Simple assembly language programming	Programming	Programming	Jm
03.11.22	Programming	Programming	Programming	Jm
07.11.22	Basic interface concept	Interfacing	Interfacing	Jm
10.11.22	Interfacing	Interfacing	Interfacing	Jm

Subject: DEMP (Sec-B) No. of Days/per week class allotted 02
 semester From Date: 15-07-22 To Date: 21-01-23 No. of Weeks: 15

Date	Topics to be covered as per Lesson Plan	Topics actually covered	Points/contents Discussed (in brief)	Signature of Teacher
17-11-22	Memory & I/O Mapping	Programming	Programming	JM
22-11-22	Functional block diagram of 8255	Memory & I/O Mapping	Mapping	JM
26-11-22	8255 PPI	8255 PPI	8255 PPI	JM
01-12-22	Description of 8255	8255 description	8255	JM
03-12-22	Application using 8255: Seven Segment Display	Seven segment display	Seven segment display	JM
06-12-22	LED display, Square wave generator	LED display, Square wave generator	LED display, Square wave generator	JM
10-12-22	Traffic Light controller	Traffic Light controller	generator, Traffic light controller	JM
15-12-22	Revision Q & A discussion	Revision Q & A discussion	Revision Q & A discussion	JM
20-12-22	Revision Q & A discussion	Revision Q & A discussion	Revision Q & A discussion	JM
03-01-23	Revision	Revision	Revision	JM
07-01-23	Discussion	Discussion	Discussion	JM