

ACADEMIC PLANNER

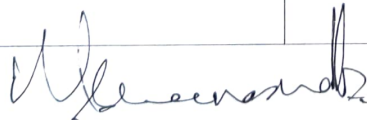
DEPARTMENT OF ELECTRONICS

VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR II STAGE, BENGALURU-55.

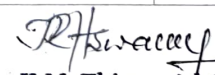
NAME: Prof. Thipperudra Swamy K.M. HOD of Electronics.

(I, III & V Semesters for the Academic Year 2020-21) Reopen – 01/09/2020

Class	September	October	November	December
I Sem B.Sc.	UNIT-1: DC and AC response of RC & RL Circuits, Transformer, switches.(10H) UNIT-2: Networks Theorems (DC analysis) KCL, KVL, open and short circuits, Voltage and current divider theorems. Star- Delta Conversion. Thevenin's & Superposition theorems. (6H)	UNIT-2: Maximum power transfer & Reciprocity theorems. (2H) UNIT-3: Semiconductor Diode and its applications. HWR & FWR Filter. Zener diode Regulator. IC Regulators. (12H) Internal Test.	UNIT-4: BJT-Construction, working, biasing and characteristics. BJT Biasing and circuits. FET- Construction, characteristics and parameters. (14H)	UNIT-5: Number systems and Interconversions. Codes- BCD, Gray, and excess-3 codes. ASCII and EBCDIC codes. Numerical problems. (8H) Test and Assignments.
III Sem B.Sc.	UNIT-3: C Programming- Introduction, structure, operators, evaluation of expressions, Arrays, Programs. (8H)	UNIT-3: Input and Output statements, library functions, programs. (4H) UNIT-4: Decision making, branching and looping- (4H) Internal test.	UNIT-4: for loop, do loop, while loop, function arguments and passing, programs. (4H) UNIT-5: Defining, declaring and initializing structure, arrays of structure. (4H)	UNIT-5: structure and functions, unions. Examples (4H) Test and Assignments.
V Sem B.Sc.	UNIT-1: Introduction to Microprocessor- Features, different buses, addressing modes, Instruction set, T states, Delay loops, Numerical examples. (12H)	UNIT-2: Stack operations, subroutine calls and returns, Assembly level Programs of various operations. Interrupts, and basic interfacing concepts. Internal test. (12H)	UNIT-3: I/O instructions and Interfacing- Memory interfacing, i/o interfacing concepts, key board and LED interfacing. (2H) Antennas: Full unit (8H)	Unit-5: Television- Introduction, Scanning, TV standards, monochrome TV transmitter and receiver, Color TV concepts and numerical problems. (8H) Internal test.



**PRINCIPAL
VIVEKANANDA DEGREE COLLEGE
BENGALURU-55**



**K.M. Thipperudra Swamy
HOD of Electronics
Vivekananda Degree College
Rajajinagar, Bangalore - 560 055**

ACADEMIC PLANNER


DEPARTMENT OF ELECTRONICS

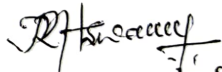
VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR II STAGE, BENGALURU-55.

NAME: Prof. Thipperudra Swamy K.M. HOD of Electronics.

(VI Semesters for the Academic Year 2020-21) Reopen - 03.05.2021 (Online classes only)

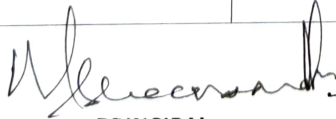
Class	May	June	July
VI Sem B.Sc.	UNIT-1: Introduction to Microcontroller-Types, Architecture, Registers, Counters and timers, TCON, SCON, PCON, (10H) Interrupts-IE, IP. (2H)	UNIT-2: Addressing modes, Instruction set, Assembly level Programs of various operations. (8H) Jump & Call instructions, simple programs. (3H) Internal Test.	UNIT-3: 8051 programming using C, Timer/Counter programming, Example programs. (6H) UNIT-4: Interfacing with 8051-Keybaord , seven segment display. (6H)

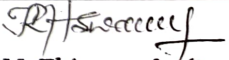

PRINCIPAL
VIVEKANANDA DEGREE COLLEGE
BENGALURU-55


K.M. Thipperudra Swamy
HOD of Electronics
Vivekananda Degree College
Rajajinagar, Bangalore - 560 055

ACADEMIC PLANNER
DEPARTMENT OF ELECTRONICS
VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR II STAGE, BENGALURU-55.
NAME: Prof. Thipperudra Swamy K.M. HOD of Electronics.
(II, IV & VI Semesters for the Academic Year 2020-21) Reopen – 26/07/2021

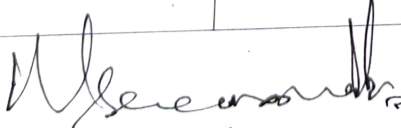
Class	July	August	September	October
II Sem B.Sc.	UNIT-1: Small Signal Amplifier-CE Amplifier, derivation for A_v , Swamped Amplifier. (4H)	Multistage Amplifier, Darlington Amplifier and JFET Amplifier. (8H) UNIT-2: Power and Tuned Amplifier- Classification, class A power amplifier, Class B push pull power Amplifier, tuned amplifiers. Internal test. (8H)	UNIT-3: Differential Amplifier- derivation for q point, Current mirror. (8H) UNIT- 4: Concept, effect of negative FB. Oscillators- Types, circuits, working and expressions . (8H)	Multivibrators, numerical problems. (2H) UNIT-5: MOSFET- Working & characteristics. UJT, SCR, LED and LCD – Construction, working and characteristics. (14H)
IV Sem B.Sc.	UNIT-1: Boolean algebra, SOP & POS. Basic logic gates. (2H)	Universal property of NAND & NOR Gates, K map, TTL NAND gate, CMOS inverter. (8H) Internal test.	UNIT-2: Combinational logic circuits -HA, FA, HS, FS, encoder, decoder, multiplexer, demultiplexer, A-D & D-A Conversion. Successive approximation ADC. (10H)	UNIT-3: Flip flops, Registers and counters. Design of synchronous counter using K Map. (8H)
VI Sem B.Sc.	Revision UNIT-1: Introduction to Microcontroller- Types, Architecture, Registers. Memory organization of 8051. counters & timers, TCON, TMOD, SCON & PCON. (3H)	Revision UNIT-2: Interrupts, addressing modes, Data transfer instructions, Examples. Logical & arithmetic instructions, ALP. UNIT-3: Jump & Call instructions, (12H)	Revision simple programs. 8051 programming using C.(8H) Internal test. Unit-4: Basic interfacing concepts, interfacing of 8051 to keyboard, stepper motor, DAC, ADC & Traffic light controller. (12H)	

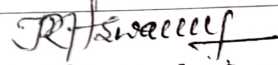

PRINCIPAL
VIVEKANANDA DEGREE COLLEGE
BENGALURU-55


K.M. Thipperudra Swamy
HOD of Electronics
Vivekananda Degree College
Bengaluru - 560 055

ACADEMIC PLANNER
DEPARTMENT OF ELECTRONICS
VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR II STAGE, BENGALURU-55.
NAME: Prof. Thipperudra Swamy K.M. HOD of Electronics.
(I, III & V Semesters for the Academic Year 2019-20) Reopen - 8.7.2019

Class	July	August	September	October
I Sem B.Sc.	UNIT-1: DC and AC response of Electronic passive components. (10H) UNIT-2: Networks Theorems (DC analysis) KCL, KVL, (2H)	UNIT-2: open and short circuits, Voltage and current divider theorems. Networks Theorems- Thevenin's, Norton's, and Superposition Theorems. (7H) UNIT-3: RPS, HWR, FWR, Filters (9H) Internal Test.	Zener diode & Transistor series regulator. (4H) UNIT-4: BJT and FET- Working, biasing, Characteristics, Types of biasing circuits, Transistor as a switch. (12H)	JFET-Working, parameters, comparison with BJT. UNIT-5: Number systems and codes- Number systems and inter conversion. BCD, Gray, and excess-3 codes. ASCII and EBCDIC codes. (13H) Test and Assignments.
III Sem B.Sc.	UNIT-3: C Programming- Introduction, structure, operators, evaluation of expressions, Arrays, (6H)	UNIT-3: Input and Output statements, library functions, programs. (4H) UNIT-4: Decision making, branching and looping- (4H) Internal test.	UNIT-4: for loop, do loop, while loop, function arguments and passing, programs. (4H) UNIT-5: Structures and unions- (4H)	Structures and unions: Arrays of structure, structure and functions, examples. (6H) Test and Assignments.
V Sem B.Sc.	UNIT-1: Introduction to Microprocessor- Features, different buses, addressing modes, Instruction set, T states, Delay oops, (9H)	UNIT-2: Examples on delay loops Stack operations, subroutine calls and returns, Assembly level Programs of various operations. Interrupts, and basic interfacing concepts. Internal test. (12H)	UNIT-3: I/O instructions and Interfacing- Memory interfacing, i/o interfacing concepts, key board and LED interfacing. (4H) Antennas: Full unit (8H)	Unit-5: Television- Introduction, Scanning, TV standards, monochrome TV transmitter and receiver, Color TV concepts and numerical problems. (8H) Internal test.


PRINCIPAL
VIVEKANANDA DEGREE COLLEGE
 BENGALURU-55

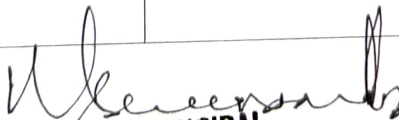

K.M. Thipperudra Swamy
HOD of Electronics
Vivekananda Degree College
 Rajajinagar, Bangalore - 560 055


ACADEMIC PLANNER
DEPARTMENT OF ELECTRONICS
VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR II STAGE, BENGALURU-55.

NAME: Prof. Thipperudra Swamy K.M. HOD of Electronics.

(II, IV & VI Semesters for the Academic Year 2019-20) Reopen - 09.01.2020

Class	January	February	March	April
II Sem B.Sc.	UNIT-1: Small Signal Amplifier-CE Amplifier, Swamped Amplifier, Multistage Amplifier, Darlington Amplifier and JFET Amplifier. (12H)	UNIT-2: Classification, class A, Class B power amplifier and tuned amplifiers- (9H) UNIT-3: Differential Amplifier-derivation for q point, (7H) Internal test.	Current mirror- Circuit and working UNIT-4: Effect of -ve FB, Expressions and numerical problems. Oscillators-circuits, Multivibrators, numerical problems. (14H)	UNIT-5: MOSFET, UJT, SCR, LED and LCD – Construction, working and characteristics. Triac and Diac- Symbol, features, operation and applications. (14H) Internal test and assignments.
IV Sem B.Sc.	UNIT-1: Boolean algebra, SOP & POS. Basic logic gates. Universal property of NAND & NOR Gates, K map, TTL NAND gate. (6H)	CMOS inverter. UNIT-2: Combinational logic circuits- HA, FA, HS, FS, Encoder, Decoder, Multiplexer, Demultiplexer. (8H)	A-D & D-A Conversion. Successive approximation ADC. UNIT-3: Flip flops, Registers and counters. Design of synchronous counter using K Map. (8H)	Programmable Logic Devices- SPLDs, ROM, PLA and GAL. CPLD and FPGA. (6H)
VI Sem B.Sc.	UNIT-1: Introduction to Microcontroller-Types, Architecture, Registers, Counters and timers, TCON, SCON, PCON, Interrupts-IE, IP. (10H) (2H)	UNIT-2: Addressing modes, Instruction set, Assembly level Programs of various operations. (8H) Jump & Call instructions, simple programs. (3H) Internal Test.	UNIT-3: 8051 programming using C, Timer/Counter programming, Example programs. (6H) UNIT-4: Interfacing with 8051-Keyboard, seven segment display. (6H)	Unit-5: DAC, ADC and Traffic light controller interfacing. PIC Micro controller- PIC 16F877, Features, pin diagram, Interfacing with LCD. (7H) Internal test.


PRINCIPAL
VIVEKANANDA DEGREE COLLEGE
BENGALURU-55


K.M. Thipperudra Swamy
HOD of Electronics
Vivekananda Degree College
Rajajinagar, Bangalore - 560 055

ACADEMIC PLANNER

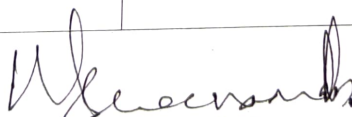
DEPARTMENT OF ELECTRONICS

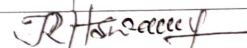
VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR II STAGE, BENGALURU-55.

NAME: Prof. Tipperudra Swamy K.M. HOD of Electronics.

(I, III & V Semesters for the Academic Year 2018-19) Reopen – 02/07/2018

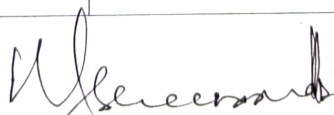
Class	July	August	September	October
I Sem B.Sc.	<p>UNIT-1: DC and AC response of Electronic passive components. (10H)</p> <p>UNIT-2: Networks Theorems (DC analysis) KCL, KVL, open and short circuits, Voltage and current divider theorems. (6H)</p>	<p>UNIT-2: Networks Theorems- Thevenin's, Norton's, and Superposition Theorems. (3H)</p> <p>UNIT-3: Semiconductor Diode and its applications-Zener diode Regulator, Transistor series regulator. (13H)</p> <p>Internal Test.</p>	<p>UNIT-4: BJT and FET- Working, biasing, Characteristics, and amplifiers. (13H)</p> <p>UNIT-5: Number systems and Codes-Types of number systems and interconversion. (3H)</p>	<p>UNIT-5: Number systems and codes- BCD, Gray, and excess-3 codes. ASCII and EBCDIC codes. Numerical problems. (9H)</p> <p>Test and Assignments.</p>
III Sem B.Sc.	<p>UNIT-3: C Programming- Introduction, structure, operators, evaluation of expressions, Arrays, Programs. (8H)</p>	<p>UNIT-3: Input and Output statements, library functions, programs. (4H)</p> <p>UNIT-4: Decision making, branching and looping- (4H)</p> <p>Internal test.</p>	<p>UNIT-4: for loop, do loop, while loop, function arguments and passing, programs. (4H)</p> <p>UNIT-5: Defining, declaring and initializing structure, arrays of structure. (4H)</p>	<p>UNIT-5: structure and functions, unions. Examples (4H)</p> <p>Test and Assignments.</p>
V Sem B.Sc.	<p>UNIT-1: Introduction to Microprocessor- Features, different buses, addressing modes, Instruction set, T states, Delay oops, Numerical examples. (12H)</p>	<p>UNIT-2: Stack operations, subroutine calls and returns, Assembly level Programs of various operations. Interrupts, and basic interfacing concepts. (12H)</p> <p>Internal test.</p>	<p>UNIT-3: I/O instructions and Interfacing- Memory interfacing, i/o interfacing concepts, key board and LED interfacing. (2H)</p> <p>Antennas: Full unit (8H)</p>	<p>Unit-5: Television- Introduction, Scanning, TV standards, monochrome TV transmitter and receiver, Color TV concepts and numerical problems. (8H)</p> <p>Internal test.</p>

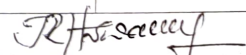

PRINCIPAL
VIVEKANANDA DEGREE COLLEGE
BENGALURU-55


K.M. Tipperudra Swamy
HOD of Electronics
Vivekananda Degree College
Rajajinagar, Bangalore - 560 055

ACADEMIC PLANNER
DEPARTMENT OF ELECTRONICS
VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR II STAGE, BENGALURU-55.
NAME: Prof. Thipperudra Swamy K.M. HOD of Electronics.
(II, IV & VI Semesters for the Academic Year 2018-19) Reopen – 24/01/2019

Class	January	February	March	April
II Sem B.Sc.	UNIT-1: Small Signal Amplifier-CE Amplifier, derivation for Av, Swamped Amplifier. (4H)	Multistage Amplifier, Darlington Amplifier and JFET Amplifier. (8H) UNIT-2: Power and Tuned Amplifier-Classification, class A power amplifier, Class B push pull power Amplifier, tuned amplifiers. Internal test. (8H)	UNIT-3: Differential Amplifier- derivation for q point, Current mirror. (9H) UNIT- 4: Concept, effect of -ve FB. Oscillators- Types, circuits, working and expressions . (9H)	Multivibrators, numerical problems. (3H) UNIT-5: MOSFET- Working & characteristics. UJT, SCR, LED and LCD – Construction, working and characteristics. (14H)
IV Sem B.Sc.	UNIT-1: Boolean algebra, SOP & POS. Basic logic gates. (2H)	Universal property of NAND & NOR Gates, K map, TTL NAND gate, CMOS inverter. (8H) Internal test.	UNIT-2: Combinational logic circuits -HA, FA, HS, FS, encoder, decoder, multiplexer, demultiplexer, A-D & D-A Conversion. Successive approximation ADC. (10H)	UNIT-3: Flip flops, Registers and counters. Design of synchronous counter using K Map. (8H)
VI Sem B.Sc.	UNIT-1: Introduction to Microcontroller-Types, Architecture, Registers. (3H)	Memory organization of 8051, counters & timers, TCON, TMOD, SCON & PCON. (7H) UNIT-2: Interrupts, addressing modes, Data transfer instructions, Examples, (5H)	Logical & arithmetic instructions, ALP. (5H) UNIT-3: Jump & Call instructions, simple programs. 8051 programming using C.(8H) Internal test.	Unit-4: Basic interfacing concepts, interfacing of 8051 to keyboard, stepper motor, DAC, ADC & Traffic light controller. PIC Microcontroller- features & interfacing. (13H)


PRINCIPAL
VIVEKANANDA DEGREE COLLEGE


K.M. Thipperudra Swamy
HOD of Electronics
Vivekananda Degree College
Rajajinagar, Bengaluru - 560 055

ACADEMIC PLANNER

VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR-II STAGE, BENGALURU-55

Plan of Syllabus of Prof. Revanasiddappa. S. Masali

Department: Electronics.
 on-line classes: 01.09.2020
 on-line & OFFline: 17.11.20 to 15.02.21.

(I, III & V Semesters, for the academic year- 2020-21.

Class	September	October	November	December & Jan 2021
I Sem B.Sc.	← Practical Classes - - - - - →			
III Sem B.Sc.	<p>OP. Amp: Parameters. Characteristics of Ideal opamp. -ve f. b in op. Amp. Applns. Adder, Subtractor, Differentiator & Integrator. Derivation for Av.</p>	<p>Small-signal amplifiers. o/p wave forms: Problems. Active Filters: Low-pass High-pass. Band Pass and Band Reject filters: Derivation for o/p voltage of L.P & H.P.</p>	<p>Fixed & Variable Voltage regulators: IC 555 multivibrators. Ckt expln. Exp for frequency of oscillation.</p>	<p>A stable & mono- stable multivibrator. Revision of Unit 1 & 2 with previous paper.</p>
V Sem B.Sc.	<p>Unit 1: Noise & T_d line. Defn: Internal & External noise. Equivalent ckt: Primary & Secondary constants. VSWR. Losses in TL line. Wave propagation Unit 2: Analog Modulation. Am, FM & PM Derivation of Am wave frequency spectrum.</p>	<p>Am & FM Modulators: block diagram of Am & FM Transmitter. Unit 3: Radio-Receivers. Am & FM Detectors. Block diagram of Superhetrodyne Am & FM Receivers.</p>	<p>Unit 4: Instrumentation Transducers: Temp & Transducers. Photo-ele- ctic Transducers: MIC LVDT. Chopper, Carrier & LOCK in amplifiers.</p>	<p>Unit 5: Bio-Medical Instruments: Electrode. Block diagram & expln of ECG & EEG. Unit 4: Antenna's. Power radiated. Radiation Pattern. Numerical Problems.</p>

R. S. Masali

Revanasiddappa. S. Masali

N. Sreenivas
 PRINCIPAL
 VIVEKANANDA DEGREE COLLEGE
 BENGALURU

ACADEMIC PLANNER

VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR-II STAGE, BENGALURU-55

Plan of Syllabus of Prof. Revanasiddappa. S. Masali.

Department: Electronics.

Online class: 03.05.2021-14.7.21

(II, IV & VI Semesters, for the academic year- 2020-21.

Offline: 26.7.21 to 14.08.2021.

Class	April May	May June	June July	July Aug.
II Sem B.Sc.	← Practicals - - - - - →			
IV Sem B.Sc.	<p><u>Unit 1:</u> Boolean Algebra and Logic gates. De-morgans Theorem SOP & POS. TTL Nand gate. TTL-IC Terminology. Half adder & Full Adder.</p>	<p><u>Unit 4:</u> Introduction to Verilog: History. Verilog module, Delays Data flow, Behavioral, Structural & Mixed design Styles.</p>	<p>Language Elements: Data types, Parameters. Expressions: operators and operands: Gate level modeling MOS switches. Example.</p>	<p><u>Unit 5:</u> Data-flow & Behavioral modeling Continuous assignment. Procedural Constructs. Procedural Assignment. Illustrative Examples.</p>
VI Sem B.Sc.	<p>Digital Communications: PAM, PWM, PPM & PCM. Digital Modulation. ASK, FSK, PSK. Modem modes of operation. Data Transmission Capacity of a Channel.</p>	<p><u>Unit 2:</u> Radar Range and Pulse, MTI, CW & FM CW Radars. Block & explicit. <u>Unit 3:</u> Satellite Comm. Need, orbits, UP Link & downlink systems Ground Stations: TDMA & FDMA</p>	<p><u>Unit 4:</u> Optical Fibers. Block diagram, light propagation. Numerical aperture. Light sources. LED, Laser diodes, optical detectors.</p>	<p><u>Unit 5:</u> Cellular Communication & wire less LAN. Roaming frequency re-use, data encryption 2G, 3G, 4G. Concepts. OSI-Model</p>

M. Masali

(Revanasiddappa. S. Masali).

R. H. S. S. S.

M. S. S. S.

PRINCIPAL
VIVEKANANDA DEGREE COLLEGE
BENGALURU-55

VIVEKANANDA DEGREE COLLEGE, BANGALORE -55
MONTHLY REPORT OF ONLINE CLASSES FOR THE MONTH OF ...September 2020...


Name of the Faculty: Thippereudm Soomy. K.M


Department: Electronics

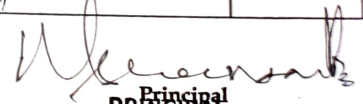
Date: From: 01.09.2020

To: 30.09.2020

Sl.No.	Date	Time	Class	Section	Subject	Topic/Basics discussed	Remarks
1	2/9/20	5 to 6 PM	III Sem	B	Electronics	Introduction about online classes, zoom app	
2	3/9/20	6 to 7 PM	V Sem	B	— " —	Introduction about syllabus contents	
3	4/9/20	5 to 6 PM	III Sem	B	— " —	Discussion of syllabus contents	
4	5/9/20	5 to 6 PM	V Sem	B	— " —	Video clipping of μP basics	
5	7/9/20	5 to 6 PM	III Sem	B	— " —	Introduction to computers	
6	10/9/20	5 to 6 PM	V Sem	B	— " —	Comparison and applications of μP & μC	
7	11/9/20	5 to 6 PM	V Sem	B	— " —	Types of microprocessors	
8	16/9/20	5 to 6 PM	III Sem	B	— " —	Introduction to computers Continued	
9	18/9/20	5 to 6 PM	III Sem	B	— " —	Introduction to computers Languages	
10	19/9/20	5 to 6 PM	V Sem	B	— " —	Architecture of μP 8085	
11	21/9/20	5 to 6 PM	V Sem	B	— " —	Architecture of μP Continued	


Signature of the Faculty


Signature of the HoD


Principal
VIVEKANANDA DEGREE COLLEGE
BENGALURU-55

VIVEKANANDA DEGREE COLLEGE, BANGALORE -55
MONTHLY REPORT OF ONLINE CLASSES FOR THE MONTH OF September 2020

Name of the Faculty: Thippeswara Swamy K.M.

Department: Electronics

Date: **From:** 01.09.2020

To: 30.09.2020

Sl.No.	Date	Time	Class	Section	Subject	Topic/Basics discussed	Remarks
12	23/9/20	5 to 6 PM	III Sem	B	Electronics	Introduction of C program	
13	24/9/20	5 to 6 PM	V Sem	B	_____ " _____	16P 8085 register arrays	
14	28/9/20	5 to 6 PM	V Sem	B	_____ " _____	ALU, special purpose registers, timing control unit	
15	30/9/20	5 to 6 PM	III Sem	B	_____ " _____	C tokens	

RTS
Signature of the Faculty

RTS
Signature of the HoD

Principal

ACADEMIC PLANNER

VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR-II STAGE, BENGALURU-55

Plan of Syllabus of Prof. Revanasiddappa S. Masali, Department: ELECTRONICS.
 (I, III & V Semesters, for the academic year- 2019 - 20.) Re-open: 08-07-2019.

Class	July	August	September	October
I Sem B.Sc.	← Practicals →			
III Sem B.Sc.	Operational amplifiers: Block diagram, Parameters, Characteristic. 3 different IC's. Limitations of OP amp. OP Amp with -ve feedback. Inverting & Non inverting Derivation for Av.	App ^s of OP Amp: Adder, Subtractor, Diff & Integrator. Derivation for O/P Voltage. Scale Changer & Examples. Wave form representation for Sine & Square waves. Numerical Problems.	Active Filters: Low pass, High pass, Band pass & Band reject ckt: Derivation for O/P Voltage of L.P & H.P Filters. Instrumentation ampli. Oscillators using OP Amp ckt & expt of Wien Bridge.	Fixed & Variable regulators ckt expt. O/P Voltage equations. 555. Timer as Astable, Monostable Multivibrator ckt expt. Eqn for frequency.
V Sem B.Sc.	Unit 1: Noise & TX. lines: Types, S/N & Noise figure Numerical problems. TX. lines: Primary & Secondary Constants. VSWR, CSWR defn. Unit 2: Analog Modulation. AM, FM, pm. Derivation for Am. wave Freq. spectrum.	AM & FM Modulators. Block diagram of AM & F.M. transmitters with AFC. Pre-emphasis, Comparison. Unit 3: Radio Receivers: Diode & TX. detectors: FM detectors. Balanced Slope detector Characteristics of Radio receiver.	Super-heterodyne Receivers. Unit 4: Electronic Instrumentation: Characteristics. Transducers: Active & Passive Temp. Transducers, strain gauge, Photo electric transducers pressure Transducers Introduction to Bio-Medical Instruments	Electrodes for EEG, EEG & EMG. Block diagram of EEG & ECG EXPT. Unit 4: Antenna. Parameters: Derivation for Power radiated & Radiation resistance

R. J. Masali

Revanasiddappa S. Masali
 (Revanasiddappa S. Masali)

U. S. Masali
 PRINCIPAL
 VIVEKANANDA DEGREE COLLEGE
 BENGALURU-55

ACADEMIC PLANNER

VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR-II STAGE, BENGALURU-55

Plan of Syllabus of Prof. Revanasiddappa S. Masali, Department: Electronics,

(II, IV & VI Semesters, for the academic year- 2019 - 20 , Re-open: 09.01.2020,

Class	January	February	March	April / May.
II Sem B.Sc.	← ----- Practicals ----- →			
IV Sem B.Sc.	<p><u>Unit 1</u>: Boolean Algebra and logic gates: Boolean laws, Demorgan's Theorem, 3 & 4-Variable K-map. Numerical problem. Classification of digital ICs. Characteristics.</p>	<p><u>Unit 4</u>: Verilog: History, structure of HDL Comparison of HDL & VHDL, Verilog module Data flow, Behavioral & Sequential logic ckt. design expln with examples. Language Elements.</p>	<p>Key word, Identifiers, Gate level modeling MOS. switches, Bidirectional switches problems on Expressions, operands & operators. Built in primitive gates. Illustrative ex.</p>	<p><u>Unit 5</u>: Data flow modeling & Behavioural Modeling: procedural Constructs, loop statements delay, net delay with examples.</p>
VI Sem B.Sc.	<p><u>Unit 1</u>: Digital Comm D: PAM, PWM, PPM & PCM, Digital Modulation: ASK, FSK, PSK, Digital Transmission Characteristics Modern - modes of Modern operation.</p>	<p><u>Unit 2</u>: RADAR System: Principle, Freq, pulse Radar System, Range Eqn. MTI & W & Fmcw Radar Block diagram. Numerical Problem.</p> <p><u>Unit 3</u>: Satellite-Comm, orbits, Satellite sub-systems. Up link & Down link.</p>	<p>C-Band Transponder, Path loss Problem, TDMA, FDMA, Comparison GPS services.</p> <p><u>Unit 4</u>: Optical-Fibers: Block diagram of OFC. Light propagation. Derivation of Numerical aperture</p>	<p>Light source of OFC, LED, Photodiode. Losses in Fibers.</p> <p><u>Unit 5</u>: Cellular Communication & wire less LAN.</p>

[Signature]

[Signature]
(Revanasiddappa S. Masali)

[Signature]
PRINCIPAL
VIVEKANANDA DEGREE COLLEGE

ACADEMIC PLANNER

VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR-II STAGE, BENGALURU-55

Plan of Syllabus of Prof. Revanasiddappa.S.Masali.

Department: Electronics.

(I, III & V Semesters, for the academic year- 2018-19

) Re-open of I III/V Sem. 02.07.2018.

Class	July	August	September	October
I Sem B.Sc.	← Practicals →			
III Sem B.Sc.	<p><u>Unit 1: Linear Integrated Ckts.</u> Classification, Adv & dis. adv. Fabrication of Monolithic IC's</p> <p><u>Operational amplifiers:</u> Parameters, Characteristics, OP Amp with Negative feedback, Derivation for Av, Inverting & non-Inverting amp's.</p>	<p>OP. Amp: Adder, subtractor, differentiator, integrator exptn. output wave form for sine & sq. waves. Small signal H-w. Rectifier.</p> <p>Open-loop applications: Comparator Characteristics. Schmitt trigger Numerical problems on OP. Amp.</p>	<p><u>Unit 2: Active Filters:</u> Low pass & High pass filters. Derivation for output Voltage Problems on L.P & H.P. Filters. Oscillators: phase-shift & Wien-bridge. Ckt. & working.</p>	<p>Fixed & Variable Ic Regulators: opp Voltage.</p> <p>Multivibrators: Astable & Monostable ckt diagram & exptn. 555 IC-Timer ckt & working. Problems.</p>
V Sem B.Sc.	<p><u>Noise & Transmission lines</u> Reflection coefficient Voltage standing wave ratio. Prop. of waves</p> <p><u>Analog Modulation Techniques.</u> AM, FM, PM, Derivation of AM. AM & FM Modulator, Comparison. AM and FM generators: Varactor diode modulators.</p>	<p>Block of AM & FM Transmitters Pre-emphasis. Numerical problem</p> <p><u>III). Radio Receivers:</u> Diode & Transistor detectors. ckt, working. Super heterodyne AM & FM. Receivers: De-emphasis. Characteristics of Radio Receivers Solving the previous Q.P.</p>	<p><u>Unit 4: Paper-VI. Electronic Instrumentation:</u> Transducers: Active & passive, LVDT, MIC, Temp. Transducers Instrumentation Amplifiers Chopper, Carrier & Lock in amp</p> <p><u>U-5: Biomedical Instruments</u> Electrode for ECG, EEG & EMG.</p>	<p>Block diagram of ECG & EMG Exptn.</p> <p><u>Unit 4: Antennas:</u> Radiation, Types. Gain, Bandwidth. Derivation of Radiation resistance, Grounded & Un. Grounded antenna. Problems on P_r & R_r.</p>

Revanasiddappa.S.Masali

(Revanasiddappa.S.Masali)

R/Swalee

U. Sreenivasulu

PRINCIPAL
VIVEKANANDA DEGREE COLLEGE

ACADEMIC PLANNER

VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR-II STAGE, BENGALURU-55

Plan of Syllabus of Prof. Revanasiddappa. S. Masali, Department: Electronics.

(II, IV & VI Semesters, for the academic year- 2018-19) Re-open: 24.01.2019.

Class	January	February	March	April & May.
II Sem B.Sc.	← Practicals →			
IV Sem B.Sc.	<p><u>Unit 1</u>: Boolean Algebra & Logic gates: Boolean Laws. Demorgan's Theorem. SOP & POS. K-map.</p>	<p>3 & 4 Variable K-map. Numerical problems. Logic families. Classification of digital IC's. Characteristics.</p> <p><u>Unit 4</u>: Verilog: History, Structure of HDL module. Comparison Dataflow Style, Behavioral Style.</p>	<p>Structural & mixed design style. Expts with examples.</p> <p>Language Elements: Key words, Identifiers, real strings.</p> <p>Gate level modeling. MUX Switches. Bi-directional Switches.</p> <p>Problem on Combinational ch.</p>	<p><u>Unit 5</u>: Dataflow modeling and Behavioral modeling. Continuous assignment. Timing Control. Illustrative Example.</p>
VI Sem B.Sc.	<p><u>Unit 1</u>: Digital Commn. PAM, PWM, PPM & PCM. Digital Modulation. ASK, FSK, PSK Characteristics.</p>	<p>Data Transmission: Capacity of a Channel. <u>Modem</u>: Classification.</p> <p><u>Unit 2</u>: RADAR: Range Eqn, Pulse, MTI & Ch, Freq Radar Block diagram & exptn.</p> <p><u>Unit 3</u>: Satellite Commn: Orbits, need, space segment UPLINK & Down link, C.Band.</p>	<p>Path loss, effect of ground. TDMA, FDMA CDMA Concept. GPS-services.</p> <p><u>Unit 4</u>: Optical Fibers: Need, light propagation. Numerical-aperture (NA). Light Sources, LED, Laser diode. Photo detectors.</p>	<p>Losses in Fibers. <u>Unit 5</u>: Cellular Communication. Concept, Freq reuse. Cell Spitting. Roaming. CDMA Technology. 2G, 3G, 4G concepts. LAN. OSI model.</p>

Revanasiddappa S. Masali
(Revanasiddappa. S. Masali)

R. J. ...
(HOD)

M. ...
PRINCIPAL
VIVEKANANDA DEGREE COLLEGE

ACADEMIC PLANNER

VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR-II STAGE, BENGALURU-55

Plan of Syllabus of Prof. Thippeswara Swamy- K.M

Department: Electronics

(II, IV & VI Semesters, for the academic year- 2017-18) Reopen - 22/01/2018

Class	January	February	March	April
II Sem B.Sc.	<p><u>Unit 1</u> classification of amplifiers CE amplifier. Derivation for Av. Expressions for Z_i & Z_o</p>	<p><u>Unit 1</u> - multistage amplifiers JFET amplifiers. <u>Unit 2</u>: Power and tuned amplifier</p>	<p><u>Unit 3</u>: Differential amplifier <u>Unit 4</u>: Feedback, Voltage Series feedback, Sinusoidal oscillators.</p>	<p><u>Unit 4</u>: multivibrators <u>Unit 5</u>: Special purpose devices.</p>
IV Sem B.Sc.	<p><u>Unit 1</u>: Introduction about digital signal and circuits</p>	<p><u>Unit 2</u>: Combinational logic circuits upto demultiplexer using gates</p>	<p>D/A & A/D conversion <u>Unit 3</u>: Sequential logic circuits - upto flip-flops</p>	<p><u>Unit 3</u>: Registers and counters PLDs.</p>
VI Sem B.Sc.	<p><u>Unit 1</u>: Introduction to Microcontroller</p>	<p><u>Unit 1</u>: Microcontroller 8051- architecture Registers <u>Unit 2</u>: - Interrupts Addressing modes</p>	<p><u>Unit 2</u>: Data transfer and arithmetic instructions <u>Unit 3</u>: 8051 programming in C. Timer & counter programming.</p>	<p><u>Unit 4</u>: Interfacing with 8051 and <u>Unit 5</u>: - PIC Microcontrollers</p>

Thippeswara Swamy
HOD

Thippeswara Swamy
PRINCIPAL
VIVEKANANDA DEGREE COLLEGE
BENGALURU-55

Thippeswara Swamy
M.L. Thippeswara Swamy
HOD of Electronics,
Vivekananda Degree College
Rajajinagar, Bangalore-560 053

ACADEMIC PLANNER

VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR-II STAGE, BENGALURU-55

Plan of Syllabus of Prof. Revanasiddappa S. Masali Department: ELECTRONICS

(II, IV & VI Semesters, for the academic year- 2017-18) Reopen; 22.01.2018.

Class	January	February	March	April
II Sem B.Sc.	← — Practicals — — — — — →			
IV Sem B.Sc.	<p><u>Unit 1: Boolean Algebra</u> Boolean Laws De Morgan's theorem. SOP, POS. K-map. 3 & 4 Variables. numerical Example.</p>	<p><u>Unit 1: Continued: Logic families, classification of Digital IC's, Characteristics.</u> <u>Unit 4: Verilog: Brief History, Structure of HDL module. Comparison of Verilog & VHDL.</u></p>	<p><u>Verilog: Delay, Data flow style, Behavioral Style, Structural & Mixed Design Style. Simulating Design.</u> a Language elements: Key word, Identifier, format, real & string.</p>	<p>④ Expressions: Operand & operator Gate level modeling. Built in primitive gate <u>Unit 5: Data flow</u> Behavioral modeling. Examples</p>
VI Sem B.Sc.	<p><u>Unit 1: Digital Commn.</u> PAM, PWM, PPM, PCM. Digital modulation ASK, FSK, PSK, Characteristics of Data transmission. Capacity of Channel, noise, cross talks, echo suppressors. Modems: Classification.</p>	<p><u>Unit 2: RADAR: Frequency Derivation of Range eqn.</u> Pulse Radar, MTI, CW and FM CW Radar Block & exp. 11. <u>Unit 3: Satellite Commn.</u> Orbit, Adv. of Geo-stationary orbit Block diagram of Satellite sub-system, up-link, downlink</p>	<p>C-band Satellite Transponder. TDMA, FDMA, CDMA. exp 10 Gps. services, SPS & PPS. <u>Unit 4: Optical fiber Commn.</u> need, OFC cable, Light propagation through OFC, Light sources. LED & Laser diode Construction & working</p>	<p>PIN- photo diode & Avalanche photo diode LOSSES. Advantage <u>Unit 5: Cellular Communication:</u> SIM Card-IMEI No. Block of Cellular Hand Set GSM CDMA, 2G, 3G 4G. GPRS LAN, Wi-Fi, 4G, max.</p>

Revanasiddappa S. Masali
 (Revanasiddappa S. Masali)

Principal
PRINCIPAL
VIVEKANANDA DEGREE COLLEGE
BENGALURU-55

Vivekananda
 VIVEKANANDA DEGREE COLLEGE
 RAJAJINAGAR-II STAGE
 BENGALURU-55

ACADEMIC PLANNER

VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR-II STAGE, BENGALURU-55

Plan of Syllabus of Prof. Revanasiddappa. S. Masali

Department: ELECTRONICS.

(II, IV & VI Semesters, for the academic year- 2017-18) Reopen ; 22.01.2018 .

Class	January	February	March	April
II Sem B.Sc.	← — Practicals — — — — — →			
IV Sem B.Sc.	<p><u>Unit 1:</u> Boolean Algebra Boolean Laws Demorgan's theorem. SOP, POS. K-map. 3 & 4 Variables. numerical Example.</p>	<p><u>Unit 1:</u> Continued: Logic families, classification of Digital IC's, Characteristics. <u>Unit 4:</u> Verilog: Brief History, Structure of HDL module. Comparison of Verilog & VHDL.</p>	<p>Verilog: Delay, Data flow style, @ Expressions. Behavior Style, Structural & Mixed Design Style. Simulating Design. Language elements: Key word, Identifiers, format, real & string.</p>	<p>Operand & operator. Gate level modeling. Built in primitive gates. <u>Unit 5:</u> Data flow Behavior modeling. Example.</p>
VI Sem B.Sc.	<p><u>Unit 1:</u> Digital Commn. PAM, PWM, PPM, PCM. Digital modulation ASK, FSK, PSK, Characteristics of Data transmission. Capacity of Channel, noise, cross talks, echo suppressors. Modems: Classification.</p>	<p><u>Unit 2:</u> RADAR: Frequency Derivation of Range eqn. Pulse Radar, MTI, CW and FM CW Radar Block & explain. <u>Unit 3:</u> Satellite Commn, Orbit, Adv. of Geo-stationary orbit Block diagram of Satellite sub-system, up-link, down-link</p>	<p>C-band Satellite Transponder. TDMA, FDMA, CDMA. explain Gps-services, SPS & PPS. <u>Unit 4:</u> Optical fiber Commn need, OFC cable, Light propagation through OFC, Light sources. LED & Laser diode Construction & working</p>	<p>PIN- photo diode. Avalanche photo diode Losses. Advantage <u>Unit 5: Cellular Communication:</u> SIM Card-IMEI No. Block of cellular Hand Set GSM, CDMA, 2G, 3G 4G. Compare LAN, Wi-Fi flow: max.</p>

Rev. Masali
(Revanasiddappa. S. Masali)

K. M. Thippesudra Swamy
PRINCIPAL
VIVEKANANDA DEGREE COLLEGE
BENGALURU-55

K. M. Thippesudra Swamy
HOD of Electronics.
Vivekananda Degree College
Rajajinagar, Bengaluru-55

ACADEMIC PLANNER

VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR-II STAGE, BENGALURU-55


Plan of Syllabus of Prof. K.M. Thippesudra Swamy.

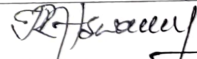
Department: ELECTRONICS.

Re-opening: 02.01.2017. (II, IV & VI Semesters, for the academic year- 2016-17)

Class	January	February	March	April
<p>II Sem B.Sc. Electronic Circuits & Special Purpose devices. EL-201T</p>	<p><u>Unit 1:</u> Small signal amplifiers: Classification CE amplif. derivation of Av. Zin & Zout - Multistage amplif. RC-Coupled, direct coupled - JFET- Amplif. ckt operation Expression for Voltage gain Numerical Problem: (12HR)</p>	<p><u>Unit 2:</u> Power and Tuned amplifiers. CLASS A, B, C. Push pull, class B push pull. Tuned amplif - Single & double (9HR)</p> <p><u>Unit 3:</u> Differential amplifrs. Re-model, diff gain. CMRR. inputs o/p impedance (4HR)</p>	<p>3) Current mirrors: differential amplif with current mirror. (4HR)</p> <p><u>Unit 4:</u> Feed back & oscillators. +ve & -ve f-b. block diagram. effect of -ve f-b. Zi, Zo & B.W. Sinusoidal oscillators. Hartley & Colpitts Oscillators. Multivibrators: Monostable, Astable works. (12HR)</p>	<p><u>Unit 5:</u> Special Purpose devices. MOSFET. UJT, SCR, LED, LCD. Tunnel diode, Varactor diode. 7-segment display. (14HR)</p>
<p>IV Sem B.Sc. Digital Electronics & Verilog. EL-401T</p>	<p><u>Unit 1:</u> Boolean Algebra and logic gates. K-map-3 & 4-Variables. TTL Ic's terminology. CMOS Inverter, Comparison. (10HR)</p>	<p><u>Unit 2:</u> Combinational logic Circuits: half & full adder Subtractor, BCD to decimal decoder. BCD to 7-segment decoder. Mux: 4:1 & Demux. D-A Converter R-2R ladder A-D Conversion (10HR)</p>	<p><u>Unit 3:</u> Sequential logic Circuits: RS-latch. D-FF JK FF, Register & counters. ASynchronous Counter. 4bit Serial & parallel Counter. 3 bit up-down counter. (8HR)</p>	<p>Synchronous Counter design using K-map. Programmable logic devices. Types of PLDs mention. (4HR)</p>
<p>VI Sem B.Sc. Micro-Controllers EL-602T</p>	<p><u>Unit 1:</u> Introduction to micro-Controller. MC- 8051, Architecture, Key features & 8051. (10HR)</p> <p><u>Unit 2:</u> 8051- Interrupts, Addressing mode & Instruction set (4HR)</p>	<p>2) Data transfer instructions: Logical instructions. Arithmetic instructions. (6HR)</p> <p><u>Unit 3:</u> 8051 programming inc. Jump & Call instructions. 8051 programming: I/O programs. Timer/Counter programming. (9HR)</p>	<p><u>Unit 4:</u> Interfacing with 8051: Basic Concepts. Interfacing of 8051 to Key board, seven segment display, Stepper motor DAC, ADC & traffic light Controller ckt. (9HR)</p>	<p><u>Unit 5:</u> PIC - Micro Controllers: Core features, over-view of PIC mc. PIC-16F877A-features Pin diagram, inter-acy with LED (4HR)</p>

K.M. Thippesudra Swamy
HOD of Electronics,
Vivekananda Degree College
Rajajinagar, Bengaluru-55 005


PRINCIPAL
VIVEKANANDA DEGREE COLLEGE
BENGALURU-55


K.M. Thippesudra Swamy
HOD of Electronics,
Vivekananda Degree College
Rajajinagar, Bengaluru-55 005

ACADEMIC PLANNER

VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR-II STAGE, BENGALURU-55

Plan of Syllabus of Prof. Revanasiddappa. S. Masali.

Department: ELECTRONICS.

(II, IV & VI Semesters, for the academic year- 2016-17.)

Class	January	February	March	April
II Sem B.Sc.	-	-	-	-
IV Sem B.Sc. Digital Electronics & Verilog	Unit 4: Introduction to Verilog: History of HDL module, Simulation, Verilog module, Delays, data flow style, Behavioral structural mixed design. Language elements 7hrs	4) Expressions: operand & operators, types of expressions. Gate level modeling: Built in Primitive gates: Examples. Combinational & Sequential Logic Ckts. (5hrs)	Unit 5: Data flow modeling and Behavioral " ". Continuous assignment, net declaration assignment, delay, net delay & examples. (6hrs)	5) Behavioral modeling: Procedural constructs timing controls. Block statements. Illustrative example. (5hrs)
VI Sem B.Sc. Communication II.	Unit 1: Digital Comm: PAM, PWM, PPM, ASK, FSK, PSK, Digital transmission modern classification (8hrs) Unit 2: Radar Systems: Freq & Power Used, Radar range equation derivation (5hrs)	2) MTI Radar, CW Radar & FMCW Radar Blocks & expt. numerical example (5hrs) Unit 3) Satellite Comm: Orbits, Block diagram of satellite sub system, C-band, TDMA, FDMA & CDMA. GPS-services. (8hrs)	Unit 4: Optical Fiber Communication: Block diagram, Light propagation derivation for NA & θ . Losses. Adv & dis advantage. Light sources. (9hrs) Unit 5: Cellular Comm & Wire less LAN: (4hrs)	5) Local Area network OSI-model, Concept of Blue-tooth, Wi-Fi & Wi max. CDMA, Comparative study of GSM & CDMA (10hrs)

Revanasiddappa S. Masali

(R. S. Masali)

Sign. of the Teacher.

M. S. Srinivas

K. M. Thippeswamy
HOD of Electronics,
Vivekananda Degree College,
Rajajinagar, Bengaluru-55

ACADEMIC PLANNER

VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR-II STAGE, BENGALURU-55

Plan of Syllabus of Prof. K. M. Thipperudra Swamy

Department: ELECTRONICS

(I, III & V Semesters, for the academic year- 2016-17)

Class	July	August	September	October
I Sem B.Sc. Basic - Electronics I	<p><u>Unit 1:</u> D.C. & A.C. response of Passive Components: RC & RL Ckts. AC applied to RC & RL ckt. Series & parallel RLC ckt. Transformer, principle, construction, fuse, Relay - (10 hrs)</p> <p><u>Unit 2:</u> Network Theorems. KCL, Voltage & current division. (3 hrs)</p>	<p>Network theorem: Thevenin, Norton, Superposition, reciprocity steps involved. Max. Power Transfer theorem. problems. (10 hrs)</p> <p><u>Unit 3:</u> Semiconductor diodes & applications, PN-junction. Rectifiers, Filter, type ckt. Zener diode regulators. Transistor series regulator (10 hrs)</p>	<p><u>Unit 4:</u> BJT and FET Construction, CE, CB, CC, Defn of α, β & β. Study of CE & CB characteristics. h-parameters. Tr Biasing. Types, expt. Tr as switch. JFET Construction & working. FET parameter: (13 hrs)</p>	<p><u>Unit 5:</u> Number System & Codes. Binary, hexa, Octal & vice-versa Sub. Using 2's Complement. BCD Codes, Gray & excess-3 Code. Self Complementing Property (12 hrs)</p>
III Sem B.Sc. Linear IC's & C. program	<p><u>Unit 3:</u> C. programming Key words, identifiers, constants & datatype. Arithmetic operators, Array concepts I/O, O/P statements. Point (&) scan (&) & getch (&). & library functions (12 hrs)</p>	<p><u>Unit 4:</u> Decision Making, Branching and looping. if-else if-else, switch statement, function arguments and passing, returning value (8 hrs)</p>	<p><u>Unit 5:</u> Structure and Unions: defining & declaring a structure, Copying & Comparing structure Variable arrays, Union size. example programs. (8 hrs)</p>	-
V Sem B.Sc. MP & Instrumentation	<p><u>Unit 1:</u> Introduction to MP. Basic block diagram, Speed word size, memory size. MP-8085: Architecture internal registers, flag. stack pointer, progr. Counter. 8085-instructions operation code, interrupt machine control. (9 hrs)</p>	<p><u>Unit 2:</u> stack operations of MP. Programming. program for data transfer add & subtraction of 8 & 16 bits multiplication, storing, no. of 1's & 0's, testing for zero cond. N-byte no.s. progr. to find GCD of two integers: (8 hrs)</p>	<p><u>Unit 3:</u> I/O instruction and interfacing. Basic, compatible I/O. LED display interfacing PPI IC - 8255 (8 hrs)</p> <p><u>Unit 4:</u> Measurement Systems Transducers & Electronic Instrumentation (9 hrs)</p>	<p><u>Unit 5:</u> Bio-medical Instruments: origin ECG, EEG & EMG. Block diagrams & expt. electrode for the above. (8 hrs)</p>

K.M. Thipperudra Swamy
Principal
Vivekananda Degree College
Rajajinagar, Bengaluru-55

(Signature)
PRINCIPAL
VIVEKANANDA DEGREE COLLEGE
BENGALURU-55

K.M. Thipperudra Swamy
Principal
Vivekananda Degree College
Rajajinagar, Bengaluru-55

ACADEMIC PLANNER

VIVEKANANDA DEGREE COLLEGE, RAJAJINAGAR-II STAGE, BENGALURU-55

Plan of Syllabus of Prof. Revanasiddappa S. Masali, Asst. Prof. Department: ELECTRONICS

(I, III & V Semesters, for the academic year- 2016-17.)

Class	July	August	September	October
I Sem B.Sc.	-	-	-	-
III Sem B.Sc. Linear Integrated Circuits & Programming	Unit 1) Integrated Circuits and - Operational Amplifiers. Classification, terminology. OP-Amps: Parameters. IC-741, types. LM308, OP07. Comparison - open-loop mode. OP-Amp with -ve f.b. (10+Hrs)	1) Derivation for Av, Buffer, Sub, Averaging amplifiers. Integrator & differentiator. Small signal half wave rectifier (4+Hrs) Unit 2: Applications of operational Amplifier and IC 555. Open loop applications. (6+Hrs)	2) First order Active Filters. Lowpass high-pass, Derivation for Cut off freq & problems. Phase-shift & Wien bridge Oscillator using OP-Amp. Fixed & Variable IC-regulators. LM-317. (10+Hrs)	3) 555-Timer: functional diagram, A stable multivibrator. 555 timer & working. Eqn for freq of oscillation. Mono-stable M.V. (4+Hrs)
V Sem B.Sc. Communication I.	Unit 1: Noise & Transmission Lines: internal, external noise figure, Tr line; Reflection Co-efficient, Sky wave (7+Hrs) Unit 2: Analog Modulation. Am, Fm, PM, derivation Power relation Am collector modulator Limitation of Am & Fm (5+Hrs)	2) FM: Freq. Spectrum, B.W. freq. deviation. Fm generators. Block diagram FM transmitter. Mod- & de-emphasis. (5+Hrs) Unit 3: Radio- Receivers; Linear & diode detector, Fm detector, Fm super heterodyne, qualitative Study of Sensitivity, selectivity (5+Hrs)	Unit 4) Antennas: Radiation mechanism, Directive gain, power gain B.W & Beam width, Derivation for power radiated by antenna. Numerical problems. (8+Hrs)	Unit 5: Television: Scanning: blanking & Synchronizing pulses. TV Transmitter and Receiver, Colour TV. Primary & Secondary colour. CCTV. (8+Hrs)

Revanasiddappa S. Masali
(R. S. Masali)

K. M. Thirupudaya Swamy
PRINCIPAL
VIVEKANANDA DEGREE COLLEGE
BENGALURU-55

K. M. Thirupudaya Swamy
Head of Electronics,
Vivekananda Degree College
Rajajinagar, Bengaluru-55 005