LESSON PLAN	
JHARSUGUDA ENGINEERING SCHOOL,JHARSUGUDA	
Name of the Faculty: JYOTI NAIK	Academic Year: 2019-20
Course No.- Th.4	Course Name: ANALOG ELECTRONICS & LINEAR IC
Programe: Diploma	Branch: Electronics & Telecommunication Engg.
Year/Sem: II / IV	Section: NA

Sl. No.	Period	Time (min)	Unit	Topic to be Covered	Teaching Method
1.	1.	55	1	Introduction to Analog Electronics	Chalk & Board
2.	2.	55	1	p-n junction Diode-working principle, current equation, its specification and uses.	Chalk & Board
3.	3.	55	1	Breakdown of Diode- Avalanche and Zener, Construction , working and characteristics of Diode	Chalk & Board
4.	4.	55	1	Classification & Working of Rectifiers- Half wave & Full Wave(CT & Bridge type)	Chalk & Board
5.	5.	55	1	Working of n-p-n & p-n-p Transistor, Transistor connections- CB,CE & CC and their i/o characteristics	Audio –Visual using Smart Class
6.	6.	55	1	Current Amplification factors of transistor- alpha, beta, gamma and relationship among them	Chalk & Board
7.	7.	55	1	Concept of biasing, its types, h- parameter model of BJT, Load Line- AC & DC and determination of Q-point	Chalk & Board
8.	8.	55	1	Types of Coupling, Working & use of RC coupled Amplifier	Chalk & Board
9.	9.	55	1	Frequency response of RC coupled Amplifier and its curve	Chalk & Board
10	10.	55	1	Revision of Unit-1	Chalk & Board
11	11.	55	2	Introduction to Power Amplifiers	Chalk & Board
12	12.	55	2	Classification of Power Amplifiers	Chalk & Board
13	13.	55	2	Difference between Voltage & Power amplifier	Chalk & Board
14	14.	55	2	Working of Class-A and Class-AB Power amplifier	Chalk & Board
15	15.	55	2	Working of Class-B and Class-C and Class-D Power amplifier and Class-D Power amplifier	Chalk & Board
16	16.	55	2	Construction, working & advantages of Push Pull(Class-B) Amplifiers	Chalk & Board
17	17.	55	2	Revision of Unit-2	Chalk & Board
18	18.	55	3	Introduction to Field Effect Transistor (FET)	Chalk & Board
19	19.	55	3	Classification of Field Effect Transistor	Chalk & Board
20	20.	55	3	Difference between JFET and BJT	Chalk & Board
21	21.	55	3	JFET- construction, Working & characteristics	Audio –Visual using Smart Class
22	22.	55	3	JFET as an Amplifier	Chalk & Board
23	23.	55	3	Different Parameters of JFET and relationship among them	Chalk & Board
24	24.	55	3	MOSFET- construction, Working & characteristics(Drain& Transfer)	Chalk & Board
25	25.	55	3	CMOS and its Operation	Chalk & Board

26	26.	55	3	Operation of VMOS and LDMOS	Chalk & Board
27	27.	55	3	Revision of Unit-3	Chalk & Board
28	28.	55	4	Concept of Feedback-classification as Positive and Negative Feedback with Block Diagram	Chalk & Board
29	29.	55	4	Working of feedback network, advantages & disadvantages of Negative and Positive Feedback	Chalk & Board
30	30.	55	4	Types of Negative FB-Voltage shunt, Voltage Series, Current Series and Current Shunt	Chalk & Board
31	31.	55	4	Characteristics of Negative FB- voltage gain, BW, I/p Impedance , o/p impedance, stability etc	Chalk & Board
32	32.	55	4	Oscillator- Block diagram, Types, working and Barkhausen Criterion	Chalk & Board
33	33.	55	4	RC oscillators- RC phase shift and crystal oscillators	Chalk & Board
34	34.	55	4	LC oscillators- Colpitts, Hartley and Wein-Bridge Oscillators	Chalk & Board
35	35.	55	4	Revision of Unit-4	Chalk & Board
36	36.	55	5	Tuned amplifier- definition, classification	Chalk & Board
37	37.	55	5	Working of Parallel Resonant circuit , resonance curve and Sharpness of Resonance	Chalk & Board
38	38.	55	5	Working of Single Tuned Voltage amplifier	Chalk & Board
39	39.	55	5	Working of Double Tuned Voltage amplifier and its limitations	Chalk & Board
40	40.	55	5	Non linear circuits- Clippers and Clampers, types of Clippers and Clampers	Chalk & Board
41	41.	55	5	Working and Application of Clippers and Clampers	Chalk & Board
42	42.	55	5	Multivibrators- Astable ,Monostable and Bistable	Chalk & Board
43	43.	55	5	Circuit diagram and working of multivibrators	Chalk & Board
44	44.	55	5	Integrator- circuit diagram, working , frequency response, i/o characteristics and uses	Chalk & Board
45	45.	55	5	Differentiator - circuit diagram, working , frequency response, i/o characteristics and uses	Chalk & Board
46	46.	55	5	Revision of Unit-5	Chalk & Board
47	47.	55	6	Introduction to Differential amplifier	Chalk & Board
48	48.	55	6	Differential Amplifier- configuration, working and significance	Chalk & Board
49	49.	55	6	Op-amp -Block Diagram , equivalent circuit, symbol	Chalk & Board
50	50.	55	6	Integrated circuit – definition and types of IC's	Audio –Visual using Smart Class
51	51.	55	6	Pin identification , temperature and ordering information of IC	Chalk & Board
52	52.	55	6	Definition of various Op- amp characteristics- i/p offset voltage, i/p offset current,	Chalk & Board
53	53.	55	6	Definition of CMRR, Slew Rate, Large signal voltage gain	Chalk & Board
54	54.	55	6	Inverting Op- amp- circuit diagram and working	Chalk & Board
55	55.	55	6	Non- Inverting Op- amp- circuit diagram and working	Chalk & Board
56	56.	55	6	Voltage series feedback amplifier- circuit diagram and operation	Chalk & Board
57	57.	55	6	Derivation of closed loop voltage gain, i/p and o/p resistances, bandwidth, Total o/p offset voltage of voltage	Chalk & Board

				series fb amplifier	
58	58.	55	6	Voltage shunt feedback amplifier- circuit diagram and operation	Chalk & Board
59	59.	55	6	Derivation of closed loop voltage gain, i/p and o/p resistances, bandwidth, Total o/p offset voltage of voltage shunt fb amplifier	Chalk & Board
60	60.	55	6	Revision of Unit-6	Chalk & Board
61	61.	55	7	Summing and Averaging amplifier using inverting & non-inverting amplifiers	Chalk & Board
62	62.	55	7	DC & AC amplifiers using Op-amp	Chalk & Board
63	63.	55	7	Integrator and Differentiator circuit using OP- amp	Chalk & Board
64	64.	55	7	Active Filter, first order low pass Butterworth filter	Chalk & Board
65	65.	55	7	Zero- crossing detector using Op-amp	Chalk & Board
66	66.	55	7	Block diagram & Operation of IC 555 timer and its application	Chalk & Board
67	67.	55	7	Block diagram & Operation of IC 565 PLL and its application	Chalk & Board
68	68.	55	7	Working of current-to-voltage convertor using Op-Amp	Chalk & Board
69	69.	55	7	Working of voltage-to-frequency convertor using Op-Amp	Chalk & Board
70	70.	55	7	Working of frequency- voltage-to- convertor using Op-Amp	Chalk & Board
71	71.	55	7	Operation of IC78XX , 79XX and LM317 with pin configuration	Chalk & Board
72	72.	55	7	Block diagram and working of IC regulator- LM723 & LM-317	Chalk & Board
73	73.	55	7	Revision of Unit-7	Chalk & Board
74	74.	55		Revision of the Whole Syllabus	Chalk & Board
75	75.	55		Revision of the Whole Syllabus	Chalk & Board