	Kanpur Institute of Technology, Kanpur							
Common Data Input Sheet								
Semester: 3rd	Name of the Faculty: Mohd Arif							
		Subject Name: Electrical Measurements &						
Subject Code: KEE 302 Total No. of Students: 16 Instrumentation								

	CO DESCRIPTION TABLE										
CO LIST	DESCRIPTION										
CO1	Evaluate errors in measurement as well as identify and use different types of instruments for the measurement of voltage, current, power and energy.										
CO2	Display the knowledge of measurement of electrical quantities resistance, inductance and capacitance with the help of bridges.										
CO3	Demonstrate the working of instrument transformers as well as calculate the errors in current and potential transformers.										
CO4	Manifest the working of electronic instruments like voltmeter, multi-meter, frequency meter and CRO.										
CO5	Display the knowledge of transducers, their classifications and their applications for the measurement of physical quantities like motion, force, pressure, temperature, flow and liquid level.										

	CO-PO Matrix																
S.No.	CO/PO	STATUS	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	CO1	Α	3	2	2	2	1	-	-		-	2	-	2	2	2	2
2	CO2	А	2	3	2	2	1	-	-	-	-	2	-	2	2	2	2
3	CO3	Α	3	3	3	2	2	-	-	-	-	2	-	2	2	2	2
4	CO4	Α	3	3	3	2	2	-	-		-	2	-	2	2	2	2
5	CO5	Α	3	3	3	2	2					2		2	2	2	2

(Please Fill up 'NA' in STATUS COLUMN if any CO is NOT APPLICABLE)

1 A 2 A 3 A 4 A	BEC	CO1 CO2 CO3 CO4 CO5 Roll No	Evaluate errors in measurement as current, power and energy. Display the knowledge of measure bridges. Demonstrate the working of instrum Manifest the working of electronic in Display the knowledge of transduquantities like motion, force, pressurement of the student Name.	ment of elections of the ment transformstruments lucers, their	Name ify and use trical qua mers as w ike voltme	of the Faculty: Note that the second of the Faculty: Note that the second of the Faculty: Note that the second of	nductal errors i	nents fo nce and in currer	r the mea	ence with the help of the standard standard with the help of the help of the standard standar
1 A 2 A 3 A 4 A	SEC	CO1 CO2 CO3 CO4 CO5	Evaluate errors in measurement as current, power and energy. Display the knowledge of measure bridges. Demonstrate the working of instrum Manifest the working of electronic in Display the knowledge of transduquantities like motion, force, pressurement as current, power and energy.	nent of electronstruments of the core of t	trical quaterical quat	rell as calculate the eter, multi-meter, frons and their appand liquid level.	nductal errors i	nents fo nce and in currei	r the mea	asurement of voltage ance with the help of the stential transformers. D. trement of physical trained CABLE
1 A 2 A 3 A 4 A	BEC	CO1 CO2 CO3 CO4 CO5	Evaluate errors in measurement as current, power and energy. Display the knowledge of measure bridges. Demonstrate the working of instrum Manifest the working of electronic in Display the knowledge of transduquantities like motion, force, pressurement as current, power and energy.	nent of electronstruments of the core of t	trical quaterical quat	rell as calculate the eter, multi-meter, frons and their appand liquid level.	nductal errors i	nents fo nce and in currei	nt and poor r and CRO he meas CO att	asurement of voltage name with the help of the properties of the help of the properties of the help of
1 A 2 A 3 A 4 A	BEC	CO2 CO3 CO4 CO5	current, power and energy. Display the knowledge of measure bridges. Demonstrate the working of instrum Manifest the working of electronic in Display the knowledge of transduquantities like motion, force, pressu	nent of electronstruments of the core of t	ike voltme	rell as calculate the eter, multi-meter, frons and their appand liquid level.	errors i	in currer	nt and poor r and CRO he meas CO att	once with the help of other controls. Once with the help of the h
1 A 2 A 3 A 4 A	SEC	CO3 CO4 CO5	bridges. Demonstrate the working of instrum Manifest the working of electronic i Display the knowledge of transduquantities like motion, force, pressu	nent transformstruments lacers, their re, temperate Total Present	ike voltme	vell as calculate the eter, multi-meter, from ons and their appeand liquid level.	errors i	in currer cy meter	nt and por r and CRO he meas CO att	otential transformers. D. urement of physical tained
1 A 2 A 3 A 4 A	SEC	CO4 CO5	Manifest the working of electronic in Display the knowledge of transduquantities like motion, force, pressu	nstruments lacers, their re, temperate Total Present	ike voltme classificati ure, flow a Internal CO	eter, multi-meter, from their appoint and liquid level.	equend	cy meter	r and CRO he meas CO att	D. urement of physical tained CABLE
1 A 2 A 3 A 4 A	SEC	CO5	Display the knowledge of transdu quantities like motion, force, pressu	re, temperat Total Present	classificati ure, flow a Internal	ons and their app and liquid level.	lication	ns for th	he meas CO att	urement of physical
1 A 2 A 3 A 4 A	SEC		quantities like motion, force, pressu	Total Present	Internal	and liquid level.			CO at	tained CABLE
1 A 2 A 3 A 4 A	SEC	Roll No	Student Name	Present	со	Out of	СО	AL:1	APPLIC	CABLE
2 A 3 A 4 A				Status	marks		СО	AL:1		
2 A 3 A 4 A			!						112312	112.0
2 A 3 A 4 A	Distri		ution of Marks	16	50	50	50	<40%	>=40% & <60%	>=60%
2 A 3 A 4 A	Α	2001650210001	ADARSH PANDEY	P	35	35	35	0	0	1
4 A	A		AKASH GUPTA	P	24	24	24	0	1	0
	Α		ANJALI VERMA	P	47	47	47	0	0	1
5 /	Α	2001650210004		P	42	42	42	0	0	1
	A		HARSH AGNIHOTRI	P	40	40	40	0	0	1
6 A	A	2001650210007	RAM BAHADUR SINGH	P	41	41	41	0	0	1
7 A	A	2001650210008	RISHABH MISHRA	P	34	34	34	0	0	1
8 A	A	2001650210009	SAURABH KUMAR SINGH	P	48	48	48	0	0	1
9 A	A	2001650210010	SAURABH YADAV	P	32	32	32	0	0	1
10 A	A	2001650210011	SHAIFALI SINGH	P	50	50	50	0	0	1
11 A	A	2001650210012		P	50	50	50	0	0	1
12 A	A	2001650210013	VAIBHAV MISHRA	P	36	36	36	0	0	1
	A	2001650210014	VIKRANT SINGH	P	34	34	34	0	0	1
	A		AMAAN HASSAN	P	38	38	38	0	0	1
	A		MEENAKSHI PRAJAPATI	P	37	37	37	0	0	1
16 A	A	2101650219004	ROHIT SAXENA	P	29	29	29	0	1	0
						Total		0	2	14
						% Student % CO attained	со	0	12.5	95.83

	Kanpur Institute of Technology, Kanpur								
	Assessment Sheet for Feedback								
S	emester: 3rd		Name of the Faculty: Mohd Arif						
	Subject Code: KEE 302		Subject Name: Electrical Measurements & Instrumentation						
CO1	Evaluate errors in measurement as well as identify and use different types of instruments for the measurement of voltage, current, power and energy.								
CO2	Display the knowledge of me	Display the knowledge of measurement of electrical quantities resistance, inductance and capacitance with the help of bridges.							
CO3	Demonstrate the working of	Demonstrate the working of instrument transformers as well as calculate the errors in current and potential transformers.							
CO4	Manifest the working of elect	Manifest the working of electronic instruments like voltmeter, multi-meter, frequency meter and CRO.							
CO5	Display the knowledge of transducers, their classifications and their applications for the measurement of physical quantities like motion, force, pressure, temperature, flow and li level.								

	Co	urse Outcoi	mes		CO1 Feedback	CO2 Feedback	CO3 Feedback	CO4 feedback	CO5 feedback	
CO1 CO2 CO3 CO4 CO5		APPLICABLE	APPLICABLE	APPLICABLE	APPLICABLE	APPLICABLE				
A A A A				A			LIC.IDEE	LICHDEE		
No of students in option1 (3)					11	10	9	14	15	
No. of students for option2 (2)					2	3	5	1	1	
No. of students in option3 (1)					3	2	1	1	0	
No. of students in option4 (0)					0	1	1	0	0	
					16	16	16	16	16	

Kanpur Institute of Technology, Kanpur Assessment Sheet for UNIVERSITY Semester: 3rd Name of the Faculty: Mohd Arif

Subject Co	ode: KEE 302	Subject Name: Electrical Measurements & Instrumentation					
CO1	Evaluate errors in measurement as woltage, current, power and energy.	vell as identify and use different types of instruments for the measurement of					
Display the knowledge of measurement of electrical quantities resistance, inductance and capacitance with the bridges.							
CO3	Demonstrate the working of instrum transformers.	ent transformers as well as calculate the errors in current and potential					
CO4	Manifest the working of electronic in	nstruments like voltmeter, multi-meter, frequency meter and CRO.					
CO5	. ,	ducers, their classifications and their applications for the measurement of physical essure, temperature, flow and liquid level.					

S.No	SEC	Roll No	Student Name	Total Present Status	From University	Out of	UNIVERSITY ATTAINTME APPLICABLE		·
				16			AL:1	AL:2	AL:3
	1		on of Marks		100	100	<40%	>=40% & <60%	>=60%
1	Α	2001650210001	ADARSH PANDEY	P	53	53	0	1	0
2	Α	2001650210002	AKASH GUPTA	P	30	30	1	0	0
3	A	2001650210003	ANJALI VERMA	P	48	48	0	1	0
4	A	2001650210004	GOPAL GUPTA	P	63	63	0	0	1
5	A	2001650210005	HARSH AGNIHOTRI	P	60	60	0	0	1
6	A	2001650210007	RAM BAHADUR SINGH	P	42	42	0	1	0
7	A	2001650210008	RISHABH MISHRA	P	35	35	1	0	0
8	A	2001650210009	SAURABH KUMAR SINGH	P	74	74	0	0	1
9	A	2001650210010	SAURABH YADAV	P	38	38	1	0	0
10	A	2001650210011	SHAIFALI SINGH	P	70	70	0	0	1
11	A	2001650210012	TANUPRIYA PANDEY	P	73	73	0	0	1
12	A	2001650210013	VAIBHAV MISHRA	P	35	35	1	0	0
13	A	2001650210014	VIKRANT SINGH	P	60	60	0	0	1
14	A	2101650219001	AMAAN HASSAN	P	34	34	1	0	0
15	A	2101650219003	MEENAKSHI PRAJAPATI	P	42	42	0	1	0
16	A	2101650219004	ROHIT SAXENA	P	47	47	0	1	0
•						Total	5	5	6
						% Student	31.25	31.25	37.5
						% CO attained		68.75	

Kanpur Institute of Technology, Kanpur Assessment Sheet for CO Attainment

Semester: 3rd Name of the Faculty: Mohd Arif

Subject Code: KEE 302	,						
CO1	Evaluate errors in measurement as well as identify and and energy.	use different types of instruments for the measurement of voltage, current, power					
CO2	Display the knowledge of measurement of electrical quantities resistance, inductance and capacitance with the help of bridges.						
CO3	Demonstrate the working of instrument transformers as	Demonstrate the working of instrument transformers as well as calculate the errors in current and potential transformers.					
CO4	Manifest the working of electronic instruments like volti	Manifest the working of electronic instruments like voltmeter, multi-meter, frequency meter and CRO.					
CO5	Display the knowledge of transducers, their classification force, pressure, temperature, flow and liquid level.	ns and their applications for the measurement of physical quantities like motion,					

	Direct Assessment								
S.No.	Exam	CO1	CO2	CO3	CO4	CO5			
1	Internal	95.83	95.83	95.83	95.83	95.83			
	Average	95.83	95.83	95.83	95.83	95.83			

	Average % Students Attained Course Outcomes									
S.N.	Course Outcome	TOTAL % STUDENT WHO ATTAINED OUTCOME (Internal)	TOTAL % STUDENT WHO ATTAINED OUTCOME (University)	WHO ATTAINED OUTCOME (Indirect - Survey)	Goal					
1	CO1	95.83	68.75	83.33	60					
2	CO2	95.83	68.75	79.17	60					
3	CO3	95.83	68.75	79.17	60					
4	CO4	95.83	68.75	93.75	60					
5	CO5	95.83	68.75	97.92	60					
Ave	erage % Students Attained Course Outcomes	95.83	68.75	86.67	60.00					

Weigtage of attainment level										
Direct Assessment	80%									
Internal Assessment	60%									
University Assessment	40%									
Indirect Assessment	20%									

% of students attained the outcome												
Assessment Types	% of students attained											
Assessment Types	CO1	CO2	CO3	CO4	CO5							
Internal Assessment (I)	95.83	95.83	95.83	95.83	95.83							
University Assessment (U)	68.75	68.75	68.75	68.75	68.75							
Direct Assessment (DI) DI=0.6*I + 0.4* U	85.00	85.00	85.00	85.00	85.00							
Indirect Assessment (ID)	83.33	79.17	79.17	93.75	97.92							
Total = 0.8*DI + 0.2*ID	84.67	83.83	83.83	86.75	87.58							

	Attainment Level: Rationale											
EE	Exceed Expectation	Attainment > 5% above the goal										
ME	Meet Expectation	5% below the goal<=Attainment < 5% above the goal										
BE	Below Expectation	Attainment <5% below the goal										
Code	Description	Goal (%)	Attainment obtained	Attainment Level								
Code EE	Description Attainment obtained > 58%	Goal (%)	Attainment obtained Attainment value > 63	Attainment Level								
	•	Goal (%) 60.00		Attainment Level 3 2								

	% of students attained the outcome w.r.t attainment level												
Assessment Types	% of students attained CO1	% of students attained CO2	% of students attained CO3	% of students attained CO4	% of students attained CO5								
Internal Assessment (I)	3	3	3	3	3								
University Assessment (U)	3	3	3	3	3								
Direct Assessment (DI) DI=0.6*I + 0.4* U	3	3	3	3	3								
Indirect Assessment (ID)	3	3	3	3	3								
Total = 0.8*DI + 0.2*ID	3	3	3	3	3								

		Kanpur Institute of Te	chnology, Kanpur										
	Assessment Sheet for Indirect Assesment												
Semester	: 3rd		Name of the Faculty: Mohd Arif										
Subject Code:	KEE 302	Total No. of Students: 16	Subject Name: Electrical Measurements & Instrumentation										
CO1	Evaluate er energy.	rors in measurement as well as identify and use o	different types of instruments for the measurement of voltage, current, power ar										
CO2	Display the	knowledge of measurement of electrical quantit	ies resistance, inductance and capacitance with the help of bridges.										
CO3	Demonstra	te the working of instrument transformers as we	Il as calculate the errors in current and potential transformers.										
CO4	Manifest th	Manifest the working of electronic instruments like voltmeter, multi-meter, frequency meter and CRO.											
CO5	Display the knowledge of transducers, their classifications and their applications for the measurement of physical quantities like motion, force, pressure, temperature, flow and liquid level.												

	Indirect Survay Table										
Options	Description	Value									
Option 1	Acquired Very Well with proficiency	3									
Option 2	Acquired enough to do my work	2									
Option 3	Acquired Marginally	1									
Option 4	Did not acquire at all	0									

	Student	ts feedback	Matrix		T	otal No. of	Participan	ts	0
S.No	Course Outcome	Total students participat ed in feedback	No of students in option1 (3)	No. of students for option2 (2)	No. of students in option3	No. of students in option4	Total Point	Total point attained	% Attained
5.110			. ,						
1	CO1	16	11	2	3	0	48	40	83.33
2	CO2	16	10	3	2	1	48	38	79.17
3	CO3	16	9	5	1	1	48	38	79.17
4	CO4	16	14	1	1	0	48	45	93.75
5	CO5	16	15	1	0	0	48	47	97.92
		Average (% Students	who Attain	ed Course	Outcomes	•		86.67

	CO-PO Matrix																
S.No.	CO/PO	STATUS	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	CO1	Α	3	2	2	2	1	-	-	-	-	2	-	2	2	2	2
2	CO2	Α	2	3	2	2	1	-	-	-	-	2	-	2	2	2	2
3	CO3	Α	3	3	3	2	2	-	-	-	-	2	-	2	2	2	2
4	CO4	Α	3	3	3	2	2	-	-		-	2	-	2	2	2	2
5	CO5	Α	3	3	3	2	2					2		2	2	2	2
Average PO 2.8 2.8 2.6 2 1.6							#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	2	#DIV/0!	2	2	2	2	

							In	direct Attai	inment of Co	О							
S.No.	S.No. Exam STATUS PO1 PO2 PO3 PO4 PO5 PO6 PO7 PO8 PO9 PO10 PO11 PO12 PSO1 PSO2 PSO3														PSO3		
1	CO1	Α	2.50	1.67	1.67	1.67	0.83					1.67		1.67	1.67	1.67	1.67
2	CO2	Α	1.58	2.38	1.58	1.58	0.79					1.58		1.58	1.58	1.58	1.67
3	CO3	Α	2.38	2.38	2.38	1.58	1.58					1.58		1.58	1.58	1.58	1.67
4	CO4	Α	2.81	2.81	2.81	1.88	1.88					1.88		1.88	1.88	1.88	1.67
5	CO5	Α	2.94	2.94	2.94	1.96	1.96					1.96		1.96	1.96	1.96	1.67
Average PO 2.44 2.43 2.28 1.73 1.41 #DIV/0! #DIV/0! #DIV/0! #DIV/0! 1.73 #DIV/0! 1.73 1.73 1.73													1.67				

	Kanpur Institute of Technology, Kanpur											
Assessment Sheet for PO Attainment												
Semester: 3rd	Na	me of the Faculty: Mohd Arif										
Subject Code: KEE 302 Total No. of Students: 16 Subject Name: Electrical Measurements & Instrumentation												

			MAPPI	NG OF CO	OURSE OU	JTCOME '	WITH PRO	OGRAM O	UTCOME	S/PROGR	AM SPEC	IFIC OUT	COME			
S.No.	Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	CO1	3.00	2.00	2.00	2.00	1.00	-	-	-	-	2.00	-	2.00	2.00	2.00	2.00
2	CO2	2.00	3.00	2.00	2.00	1.00	-	-	-	-	2.00	-	2.00	2.00	2.00	2.00
3	CO3	3.00	3.00	3.00	2.00	2.00	-	-	-	-	2.00	-	2.00	2.00	2.00	2.00
4	CO4	3.00	3.00	3.00	2.00	2.00	-	-		-	2.00	-	2.00	2.00	2.00	2.00
5	CO5	3.00	3.00	3.00	2.00	2.00				_	2.00		2.00	2.00	2.00	2.00
Avera	ige CO	2.80	2.80	2.60	2.00	1.60	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	2.00	#DIV/0!	2.00	2.00	2.00	2.00

	Direct Assessment (Internal + University)																
S.No.	Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	% of students attained CO
1	CO1	2.55	1.70	1.70	1.70	0.85					1.70		1.70	1.70	1.70	1.70	85.00
2	CO2	1.70	2.55	1.70	1.70	0.85					1.70		1.70	1.70	1.70	1.70	85.00
3	CO3	2.55	2.55	2.55	1.70	1.70					1.70		1.70	1.70	1.70	1.70	85.00
4	CO4	2.55	#REF!	2.55	1.70	1.70					1.70		1.70	1.70	1.70	1.70	85.00
5	CO5	2.55	2.55	2.55	1.70	1.70					1.70		1.70	1.70	1.70	1.70	85.00
Avera	Average PO		#REF!	2.21	1.70	1.36					1.70		1.70	1.70	1.70	1.70	85.00

								Indirect A	ttainment	of CO							
S.No.	Exam	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	% of student Indirect Attained
1	CO1	2.50	1.67	1.67	1.67	0.83					1.67		1.67	1.67	1.67	1.67	83.33
2	CO2	1.58	2.38	1.58	1.58	0.79					1.58		1.58	1.58	1.58	1.67	79.17
3	CO3	2.38	2.38	2.38	1.58	1.58					1.58		1.58	1.58	1.58	1.67	79.17
4	CO4	2.81	2.81	2.81	1.88	1.88					1.88		1.88	1.88	1.88	1.67	93.75
5	CO5	2.94	2.94	2.94	1.96	1.96					1.96		1.96	1.96	1.96	1.67	97.92
Avera	ige PO	2.44	2.43	2.28	1.73	1.41					1.73		1.73	1.73	1.73	1.67	86.67

	PO Attainment														
Attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Direct(D)	2.38	#REF!	2.21	1.70	1.36					1.70		1.70	1.70	1.70	1.70
Indirect(I)	2.44	2.43	2.28	1.73	1.41					1.73		1.73	1.73	1.73	1.67
Total=.8*D+0.2*I	2.39	#REF!	2.22	1.71	1.37					1.71		1.71	1.71	1.71	1.69

	Kanpu	r Institute of Technology, Kanpur					
		Feedback					
Semester: 3rd		Name of the Faculty: Mohd Arif					
Subject Code: KEE 302		Total No. of Students: 16	Subject Name: Electrical Measurements & Instrumentation	VALUE			
,	Evaluate errors in measurement a	s well as identify and use different types of in	struments for the measurement of voltage, current,				
CO1	power and energy.			To be filled by students			
CO2	Display the knowledge of measure	ement of electrical quantities resistance, indu	ctance and capacitance with the help of bridges.	To be filled by students			
CO3	Demonstrate the working of instr	ument transformers as well as calculate the e	rrors in current and potential transformers.	To be filled by students			
CO4	Manifest the working of electronic instruments like voltmeter, multi-meter, frequency meter and CRO. To be filled b						
	' '		s for the measurement of physical quantities like motion,				
CO5	force, pressure, temperature, flow	and liquid level.		To be filled by students			

	Indirect Survay Table								
Options	Description	Value							
Option 1	Acquired Very Well with proficiency	3							
Option 2	Acquired enough to do my work	2							
Option 3	Acquired Marginally	1							
Option 4	Did not acquire at all	0							

Name & Signature of the Student

	Kanpu	r Institute of Technology, Kanp	our					
		Feedback						
Semester: 3rd		Name of the Faculty: Mohd Ar	if	VALUE				
			Subject Name: Electrical Measurements &	VALUE				
Subject Code: KEE 302		Total No. of Students: 16	Instrumentation					
	Evaluate errors in measurement a	Evaluate errors in measurement as well as identify and use different types of instruments for the measurement of voltage, current,						
CO1	power and energy.			To be filled by students				
CO2	Display the knowledge of measure	ement of electrical quantities resistance,	inductance and capacitance with the help of bridges.	To be filled by students				
CO3	Demonstrate the working of instr	ument transformers as well as calculate	the errors in current and potential transformers.	To be filled by students				
CO4	Manifest the working of electronic instruments like voltmeter, multi-meter, frequency meter and CRO. To be							
·	Display the knowledge of transducers, their classifications and their applications for the measurement of physical quantities like motion,							
CO5	force, pressure, temperature, flow	and liquid level.		To be filled by students				

	Indirect Survay Table							
Options	Description	Value						
Option 1	Acquired Very Well with proficiency	3						
Option 2	Acquired enough to do my work	2						
Option 3	Acquired Marginally	1						
Option 4	Did not acquire at all	0						

Kanpur Institute of Technology, Kanpur								
Common Data Input Sheet								
Semester: IV		Name of the Faculty: Mr. SHASHANK SRIVASTAVA						
Subject Code: KEE-401		Total No. of Students: 16	Subject Name: DIGITAL ELECTRONICS					

	CO DESCRIPTION TABLE						
CO LIST	DESCRIPTION						
CO1	Apply concepts of Digital Binary System and implementation of Gates.						
CO2	Analyze and design of Combinational logic circuits.						
CO3	Analyze and design of Sequential logic circuits with their applications.						
CO4	Implement the Design procedure of Synchronous & Asynchronous Sequential Circuits.						
CO5	Apply the concept of Digital Logic Families with circuit implementation.						

								СО-РО	Matrix								
S.No.	CO/PO	STATUS	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	CO1	Α	3	2	2	2	1	-	-	-	-	2	-	2	2	2	2
2	CO2	Α	2	3	2	2	1	-	-	-	-	2	-	2	2	2	2
3	CO3	Α	3	3	3	2	2	-	-	-	-	2	-	2	2	2	2
4	CO4	Α	3	3	3	2	2	-	-	-	-	2	-	2	2	2	2
5	CO5	Α	3	3	3	2	2					2		2	2	2	2

(Please Fill up 'NA' in STATUS COLUMN if any CO is NOT APPLICABLE)

			Kanpur Institute of Te	chnology,	Kanpur								
			Assessment Sh	neet for PU									
		Semester: IV		Name o	of the Fa	culty: Mr. SHASH	IANK S	SRIVAS	TAVA	Subject Code: KEE- 401			
		CO1	Apply concepts of Digital Binary Sys	tem and impl	ementatio	on of Gates.							
		CO2	Analyze and design of Combinational logic circuits.										
		CO3	Analyze and design of Sequential log	gic circuits wi	th their ap	oplications.							
		CO4	Implement the Design procedure of	Synchronous	s & Asynch	nronous Sequential C	Circuits						
		CO5	Apply the concept of Digital Logic Fa	amilies with c	ircuit impl	lementation.							
S.No	SEC	C Roll No Student Name		Total Present	Internal CO	Out of				nttained			
Sirio		2001.10	Staucit Faint	Status	marks	0.00	СО	AL:1	APPL AL:2	ICABLE AL:3			
		Distribution of Man	ks	16	50	50	50	<40%	>=40% & <60%	>=60%			
1	Α	2001650210001	ADARSH PANDEY	P	41	41	41	0	0	1			
2	A	2001650210002	AKASH GUPTA	P	35	35	35	0	0	1			
3	A	2001650210003	ANJALI VERMA	P	50	50	50	0	0	1			
4	A	2001650210004	GOPAL GUPTA	P	50	50	50	0	0	1			
5	Α	2001650210005	HARSH AGNIHOTRI	P	47	47	47	0	0	1			
6	Α	2001650210007	RAM BAHADUR SINGH	P	48	48	48	0	0	1			
7	Α	2001650210008	RISHABH MISHRA	P	39	39	39	0	0	1			
8	Α	2001650210009	SAURABH KUMAR SINGH	P	50	50	50	0	0	1			
9	Α	2001650210010	SAURABH YADAV	P	39	39	39	0	0	1			
10	A	2001650210011	SHAIFALI SINGH	P	50	50	50	0	0	1			
11	Α	2001650210012	TANUPRIYA PANDEY	P	50	50	50	0	0	1			
12	Α	2001650210013	VAIBHAV MISHRA	P	39	39	39	0	0	1			
13	Α	2001650210014	VIKRANT SINGH	P	47	47	47	0	0	1			
14	Α	2101650219001	AMAAN HASSAN	P	30	30	30	0	0	1			
15	Α	2101650219003	MEENAKSHI PRAJAPATI	P	44	44	44	0	0	1			
16	Α	2101650219004	ROHIT SAXENA	P	38	38	38	0	0	1			
	-		•	,	•	Total		0	0	16			
						% Student	со	0	0	100			
						% CO attained	Ī			100			

		Kanpur Inst	itute of Technology, Kanpur							
	Assessment Sheet for Feedback									
	Semester: IV		Name of the Faculty: Mr. SHASHANK SRIVASTAVA							
	Subject Code: KEE-401		Subject Name: DIGITAL ELECTRONICS							
CO1	Apply concepts of Digital Binary Sys	stem and implementation of Gat	es.							
CO2	Analyze and design of Combination	al logic circuits.								
CO3	Analyze and design of Sequential Ic	Analyze and design of Sequential logic circuits with their applications.								
CO4	Implement the Design procedure of Synchronous & Asynchronous Sequential Circuits.									
CO5	Apply the concept of Digital Logic F	pply the concept of Digital Logic Families with circuit implementation.								

	Co	urse Outcor	nes		CO1 Feedback	CO2 Feedback	CO3 Feedback	CO4 feedback	CO5 feedback
CO1	CO2	CO3	CO4	CO5	APPLICABLE	APPLICABLE	APPLICABLE	APPLICABLE	APPLICABLE
A	A	A	A	A	ATTLICABLE	ATTEICABLE	ATTLICABLE	ATTEICABLE	ATTEICABLE
	No of stu	dents in op	otion1 (3)		8	7	7	5	6
	No. of stu	dents for o	ption2 (2)		4	6	6	6	5
	No. of stu	ıdents in op	ption3 (1)		4	3	2	4	4
	No. of stu	ıdents in o _l	ption4 (0)		0	0	1	1	1
					16	16	16	16	16

Kanpur Institute of Technology, Kanpur Assessment Sheet for UNIVERSITY Semester: IV Name of the Faculty: Mr. SHASHANK SRIVASTAVA **Subject Code: KEE-401 Subject Name: DIGITAL ELECTRONICS** Apply concepts of Digital Binary System and implementation of Gates. CO1 CO2 Analyze and design of Combinational logic circuits. CO3 Analyze and design of Sequential logic circuits with their applications. CO4 Implement the Design procedure of Synchronous & Asynchronous Sequential Circuits. CO₅ Apply the concept of Digital Logic Families with circuit implementation. UNIVERSITY ATTAINTMENT Total From SEC Roll No **Student Name** Out of S.No Present University APPLICABLE Status AL:1 AL:2 AL:3 Distribution of Marks 100 100 >=40% & <60% 16 <40% >=60% ADARSH PANDEY 71 71 2001650210001 P 0 0 Α 61 Α 2001650210002 AKASH GUPTA Р 61 0 2001650210003 ANJALI VERMA P 52 52 0 4 A 2001650210004 GOPAL GUPTA P 36 36 0 0 A 2001650210005 HARSH AGNIHOTRI P 53 53 0 1 0 2001650210007 RAM BAHADUR SINGH 74 74 0 59 59 Α 2001650210008 RISHABH MISHRA P 0 1 0 2001650210009 SAURABH KUMAR SINGH 55 55 0 0 Α A 2001650210010 SAURABH YADAV P 77 77 0 0 10 2001650210011 SHAIFALI SINGH 72 72 0 0 Α P 11 Α 2001650210012 TANUPRIYA PANDEY P 50 50 0 0 2001650210013 VAIBHAV MISHRA P 71 12 71 0 0

57

60

54

82

P

P

Р

57

60

54

82

Total

% Student

% CO attained

0

0

0

0

1

6.25

1

0

0

7

43.75

81.25

0

0

1

8

50

VIKRANT SINGH

AMAAN HASSAN

ROHIT SAXENA

MEENAKSHI PRAJAPATI

13

14

15

16

Α

A

Α

Α

2001650210014

2101650219001

2101650219003

2101650219004

Kanpur Institute of Technology, Kanpur Assessment Sheet for CO Attainment

Name of the Faculty: Mr. SHASHANK SRIVASTAVA Semester: IV

Subject Code: KEE-401	Total No. of Students: 16	Subject Name: DIGITAL ELECTRONICS
CO1	Apply concepts of Digital Binary System and implementa	tion of Gates.
CO2	Analyze and design of Combinational logic circuits.	
CO3	Analyze and design of Sequential logic circuits with their	applications.
CO4	Implement the Design procedure of Synchronous & Asyn	chronous Sequential Circuits.
CO5	Apply the concept of Digital Logic Families with circuit im	plementation.

		•	Direct Assessment		•	•
S.No.	Exam	CO1	CO2	CO3	CO4	CO5
1	Internal	100	100	100	100	100
	Average	100.00	100.00	100.00	100.00	100.00

		Average % Students	Attained Course Outcomes		
S.N.	Course Outcome	TOTAL % STUDENT WHO ATTAINED OUTCOME (Internal)	TOTAL % STUDENT WHO ATTAINED OUTCOME (University)	WHO ATTAINED OUTCOME (Indirect - Survey)	Goal
1	CO1	100.00	81.25	75.00	60
2	CO2	100.00	81.25	75.00	60
3	CO3	100.00	81.25	72.92	60
4	CO4	100.00	81.25	64.58	60
5	CO5	100.00	81.25	66.67	60
Ave	erage % Students Attained Course Outcomes	100.00	81.25	70.83	60.00

Weigtage of attainment level	
Direct Assessment	80%
Internal Assessment	60%
University Assessment	40%
Indirect Assessment	20%

	9/	of students attained the ou	itcome		
Assessment Types	% of students attained	% of students attained	% of students attained	% of students attained	% of students attained
Assessment Types	CO1	CO2	CO3	CO4	CO5
Internal Assessment (I)	100.00	100.00	100.00	100.00	100.00
University Assessment (U)	81.25	81.25	81.25	81.25	81.25
Direct Assessment (DI) DI=0.6*I + 0.4* U	92.50	92.50	92.50	92.50	92.50
Indirect Assessment (ID)	75.00	75.00	72.92	64.58	66.67
Total = 0.8*DI + 0.2*ID	89.00	89.00	88.58	86.92	87.33

		Attainment Level: Ration	ale	
EE	Exceed Expectation		Attainment > 5% above the goal	
ME	Meet Expectation		5% below the goal <= Attainment < 5% above the goal	
BE	Below Expectation		Attainment <5% below the goal	
Code	Description	Goal (%)	Attainment obtained	Attainment Level
Code EE	Description Attainment obtained > 58%	Goal (%)	Attainment obtained Attainment value > 63	Attainment Level
		Goal (%) 60.00		Attainment Level 3 2

	% of student	s attained the outcome w.r.	t attainment level		
Assessment Types	% of students attained CO1	% of students attained CO2	% of students attained CO3	% of students attained CO4	% of students attained CO5
Internal Assessment (I)	3	3	3	3	3
University Assessment (U)	3	3	3	3	3
Direct Assessment (DI) DI=0.6*I + 0.4* U	3	3	3	3	3
Indirect Assessment (ID)	3	3	3	3	3
Total = 0.8*DI + 0.2*ID	3	3	3	3	3

		Kanpur Institute of Technology	ogy, Kanpur
		Assessment Sheet for Indirect	t Assesment
Semester	: IV	Name of the Fa	culty: Mr. SHASHANK SRIVASTAVA
Subject Code:	KEE-401	Total No. of Students: 16	Subject Name: DIGITAL ELECTRONICS
CO1	Apply conc	epts of Digital Binary System and implementation of Gate	25.
CO2	Analyze an	d design of Combinational logic circuits.	
CO3	Analyze an	d design of Sequential logic circuits with their application	s.
CO4	Implement	the Design procedure of Synchronous & Asynchronous S	equential Circuits.
CO5	Apply the o	oncept of Digital Logic Families with circuit implementati	on.

ptions	De	escription	Value	
otion 1	Acquired Very	Well with proficiency	3	
otion 2	Acquired en	ough to do my work	2	
otion 3	Acquir	red Marginally	1	
otion 4	Did no	ot acquire at all	0	

	Student	s feedback	Matrix		Т	otal No. of	Participan	ts	0
	Course		in option1	No. of students for option2	No. of students in option3	No. of students in option4	Total	Total point	%
S.No	Outcome	feedback	(3)	(2)	(1)	(0)	Point	attained	Attained
1	CO1	16	8	4	4	0	48	36	75.00
2	CO2	16	7	6	3	0	48	36	75.00
3	CO3	16	7	6	2	1	48	35	72.92
4	CO4	16	5	6	4	1	48	31	64.58
5	CO5	16	6	5	4	4	48	32	66.67
		Average (% Students	who Attain	ed Course	Outcomes			70.83

								CO-PO	Matrix								
S.No.	CO/PO	STATUS	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	CO1	Α	3	2	2	2	1	-	-	-	-	2	-	2	2	2	2
2	CO2	Α	2	3	2	2	1	-	-	-	-	2	-	2	2	2	2
3	CO3	Α	3	3	3	2	2	-	-	-	-	2	-	2	2	2	2
4	CO4	Α	3	3	3	2	2	-	-	-	-	2	-	2	2	2	2
5	CO5	Α	3	3	3	2	2					2		2	2	2	2
	Average PO)	2.8	2.8	2.6	2	1.6	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	2	#DIV/0!	2	2	2	2

ĺ	Indirect Attainment of CO																
S.No.	Exam	STATUS	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	CO1	Α	2.25	1.50	1.50	1.50	0.75					1.50		1.50	1.50	1.50	1.50
2	CO2	Α	1.50	2.25	1.50	1.50	0.75					1.50		1.50	1.50	1.50	1.50
3	CO3	Α	2.19	2.19	2.19	1.46	1.46					1.46		1.46	1.46	1.46	1.50
4	CO4	Α	1.94	1.94	1.94	1.29	1.29					1.29		1.29	1.29	1.29	1.50
5	CO5	Α	2.00	2.00	2.00	1.33	1.33					1.33		1.33	1.33	1.33	1.50
	Average PO	0	1.98	1.98	1.83	1.42	1.12	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.42	#DIV/0!	1.42	1.42	1.42	1.50

	Kanpur Institute of Technology, Kanpur							
Assessment Sheet for PO Attainment								
Semester: IV	Name of the	Faculty: Mr. SHASHANK SRIVASTAVA						
Subject Code: KEE-401	Total No. of Students: 16	Subject Name: DIGITAL ELECTRONICS						

	MAPPING OF COURSE OUTCOME WITH PROGRAM OUTCOMES/PROGRAM SPECIFIC OUTCOME															
S.No.	Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	CO1	3.00	2.00	2.00	2.00	1.00	-	-	-	-	2.00	-	2.00	2.00	2.00	2.00
2	CO2	2.00	3.00	2.00	2.00	1.00	-	-	-	-	2.00	-	2.00	2.00	2.00	2.00
3	CO3	3.00	3.00	3.00	2.00	2.00	-	-	-	-	2.00	-	2.00	2.00	2.00	2.00
4	CO4	3.00	3.00	3.00	2.00	2.00	-	-	-	-	2.00	-	2.00	2.00	2.00	2.00
5	CO5	3.00	3.00	3.00	2.00	2.00					2.00		2.00	2.00	2.00	2.00
Avera	age CO	2.80	2.80	2.60	2.00	1.60	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	2.00	#DIV/0!	2.00	2.00	2.00	2.00

	Direct Assessment (Internal + University)																
S.No.	Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	% of students attained CO
1	CO1	2.78	1.85	1.85	1.85	0.93					1.85		1.85	1.85	1.85	1.85	92.50
2	CO2	1.85	2.78	1.85	1.85	0.93					1.85		1.85	1.85	1.85	1.85	92.50
3	CO3	2.78	2.78	2.78	1.85	1.85					1.85		1.85	1.85	1.85	1.85	92.50
4	CO4	2.78	#REF!	2.78	1.85	1.85					1.85		1.85	1.85	1.85	1.85	92.50
5	CO5	2.78	2.78	2.78	1.85	1.85					1.85		1.85	1.85	1.85	1.85	92.50
Avera	age PO	2.59	#REF!	2.41	1.85	1.48					1.85		1.85	1.85	1.85	1.85	92.50

	Indirect Attainment of CO																
S.No.	Exam	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	% of student Indirect Attained
1	CO1	2.25	1.50	1.50	1.50	0.75					1.50		1.50	1.50	1.50	1.50	75.00
2	CO2	1.50	2.25	1.50	1.50	0.75					1.50		1.50	1.50	1.50	1.50	75.00
3	CO3	2.19	2.19	2.19	1.46	1.46					1.46		1.46	1.46	1.46	1.50	72.92
4	CO4	1.94	1.94	1.94	1.29	1.29					1.29		1.29	1.29	1.29	1.50	64.58
5	CO5	2.00	2.00	2.00	1.33	1.33					1.33		1.33	1.33	1.33	1.50	66.67
Avera	ige PO	1.98	1.98	1.83	1.42	1.12					1.42		1.42	1.42	1.42	1.50	70.83

	PO Attainment														
Attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Direct(D)	2.59	#REF!	2.41	1.85	1.48					1.85		1.85	1.85	1.85	1.85
Indirect(I)	1.98	1.98	1.83	1.42	1.12					1.42		1.42	1.42	1.42	1.50
Total=.8*D+0.2*I	2.47	#REF!	2.29	1.76	1.41					1.76		1.76	1.76	1.76	1.78

	Kanpur Institute of Technology, Kanpur								
	VALUE								
Semester: IV	VALUE								
Subject Code: KEE-401		Total No. of Students: 16	Subject Name: DIGITAL ELECTRONICS						
CO1	Apply concepts of Digital Binary Sy	stem and implementation of Gates.	To be filled by students						
CO2	Analyze and design of Combinatio	nal logic circuits.		To be filled by students					
CO3		To be filled by students							
CO4	To be filled by students								
CO5	Apply the concept of Digital Logic Families with circuit implementation.								

	Indirect Survay Table							
Options	Description	Value						
Option 1	Acquired Very Well with proficiency	3						
Option 2	Acquired enough to do my work	2						
Option 3	Acquired Marginally	1						
Option 4	Did not acquire at all	0						

Name & Signature of the Student

	Kanpı	ır Institute of Technology, Kan	our			
	VALUE					
Semester: IV Name of the Faculty: Mr. SHASHANK SRIVASTAVA						
Subject Code: KEE-401		Total No. of Students: 16	Subject Name: DIGITAL ELECTRONICS			
CO1	Apply concepts of Digital Binary S	ystem and implementation of Gates.		To be filled by students		
CO2	Analyze and design of Combination	onal logic circuits.	To be filled by students			
CO3	Analyze and design of Sequential	logic circuits with their applications.		To be filled by students		
CO4	To be filled by students					
CO5	Apply the concept of Digital Logic	To be filled by students				

	Indirect Survay Table							
Options	Description	Value						
Option 1	Acquired Very Well with proficiency	3						
Option 2	Acquired enough to do my work	2						
Option 3	Acquired Marginally	1						
Option 4	Did not acquire at all	0						