



JAYAWANT SHIKSHAN PRASARAK MANDAL's

Bhivarabai Sawant Institute of Technology & Research

(Approved by AICTE New Delhi, DTE Mumbai & Affiliated to Savitribai Phule Pune University)

Accredited with B++ Grade by NAAC

Gat No. 719/1 & 2, Wagholi, Pune-Nagar Road, Pune-412207

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EN 6311 / CEGP-013100



Prof. Dr. T. J. Sawant
B.E. (Elec.) PGDM, Ph.D
Founder Secretary

Dr. T.K. Nagaraj
ME. (Civil Engg), Ph.D (Civil Engg)
LMISTE, LMIGS, LMIRC
LMISRMIT, LMIE
Principal

PROCESS OF CO, PO, PSO Evaluation

LIST OF PROGRAM OUTCOMES

PO1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

LIST OF COURSE OUTCOMES

Subject; Signals & Systems

Course Outcomes: On completion of the course, learner will be able to –

- CO1: Identify, classify basic signals and perform operations on signals.
- CO2: Identify, Classify the systems based on their properties in terms of input output relation and in terms of impulse response and will be able to determine the convolution between to signals.
- CO3: Analyze and resolve the signals in frequency domain using Fourier series and Fourier Transform.
- CO4: Resolve the signals in complex frequency domain using Laplace Transform, and will be able to apply and analyze the LTI systems using Laplace Transforms.
- CO5: Define and Describe the probability, random variables and random signals. Compute the probability of a given event, model, compute the CDF and PDF.
- CO6: Compute the mean, mean square, variance and standard deviation for given random variables using PDF.

MAPPING CO and PO:

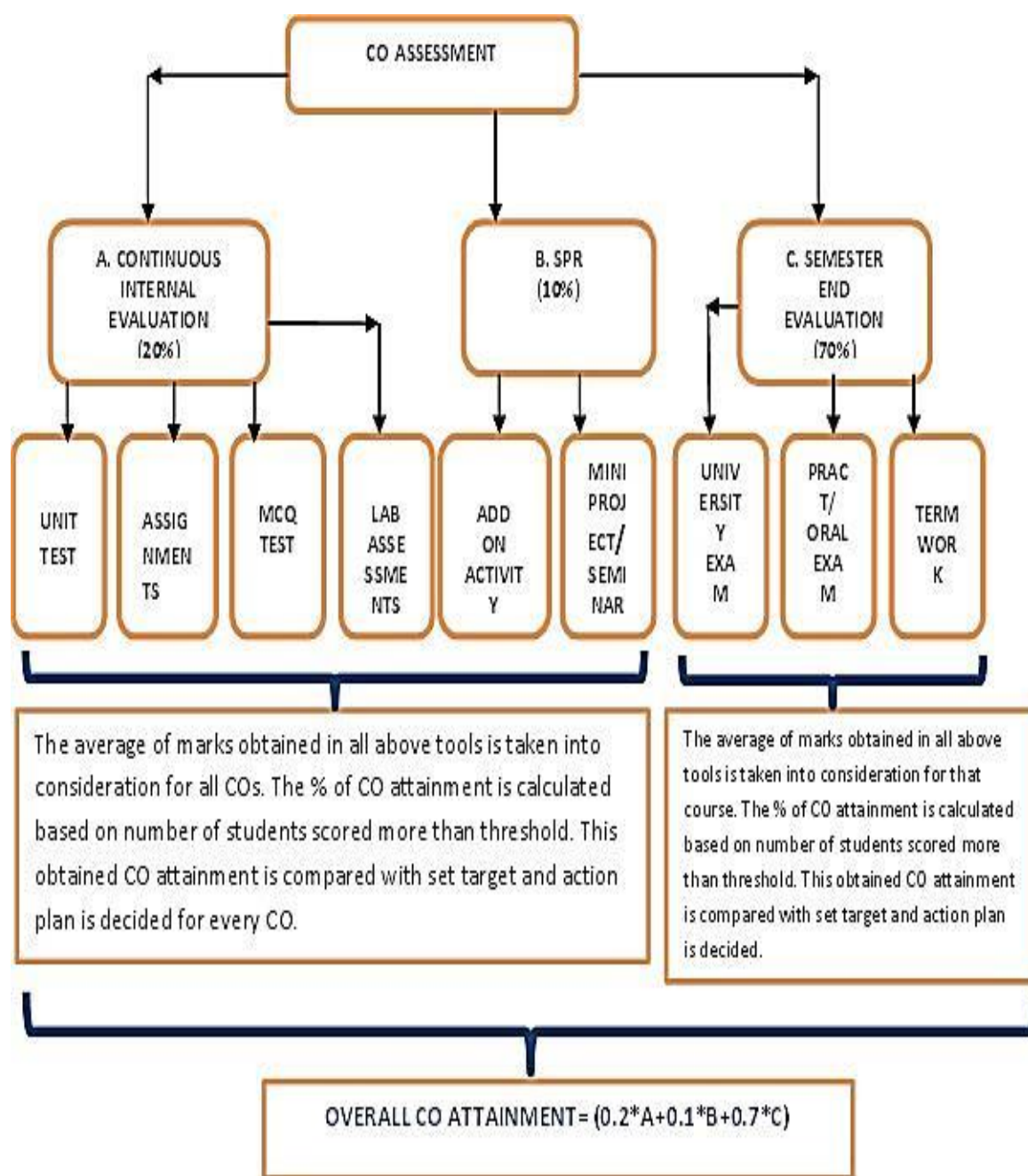
Subject; Signals & Systems

CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
204191.1	2	1	1	-	-	-	-	-	-	-	-	1
204191.2	2	1	1	-	3	-	-	-	-	-	-	2
204191.3	3	2	1	-	1	-	-	-	-	-	-	1
204191.4	3	2	1	1	-	-	-	-	-	-	-	2
204191.5	3	2	1	1	-	-	-	-	-	-	-	2
204191.6	3	2	1	1	2	-	-	-	-	-	-	2
Average	2.67	1.67	1.00	1.00	2.00	-	-	-	-	-	-	1.67

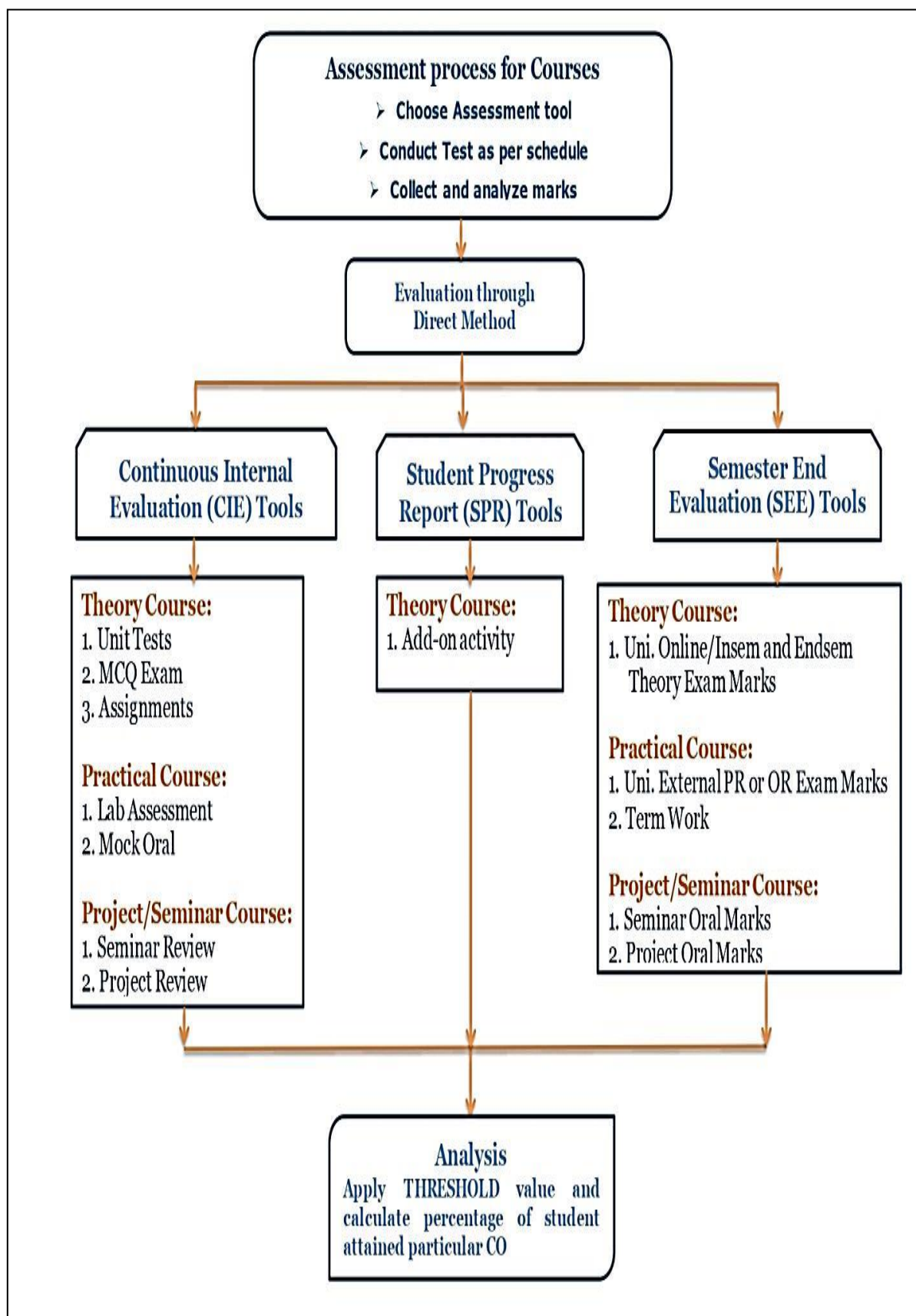
MAPPING CO and PSO:

CO CODE	PSO1	PSO2	PSO3
404189.1	1	2	1
404189.2	2	3	2
404189.3	2	2	3
404189.4	1	-	3
404189.5	2	-	3
404189.6	2	2	3
Average	1.67	2.25	2.50

ASSESSMENT PROCESS FOR DATA COLLECTION



FLOW CHART FOR THE ASSESSMENT TOOL/PROCESSES, USED TO GATHER THE DATA



PROCESS FOR THE ASSESSMENT TOOL/PROCESSES, USED TO GATHER THE DATA

ASSESSMENT TOOLS AND THEIR WEIGHTAGES IN EVALUATION OF COS

Assessment tools and its weightage in overall attainment of COs				
Sr. No.	Internal And External Assessment tools	CIE	SPR	SPPU
1	Course assessed by Internal exam only	100%	-	-
2	Course assessed by Internal and SPPU exam	30%	-	70%
3	Course assessed by Internal exam, Lab and SPPU exam	30%	-	70%
4	Course assessed by Internal exam, Lab, Add on activity/scenario Assignment etc. and SPPU exam	20%	10%	70%
5	Course assessed by co and extra-curricular activities only- Audit Course	-	100%	-

INTERNAL DIRECT ASSESSMENT TOOLS

TOOLS USED FOR DIRECT ASSESSMENT		
A. Continuous Internal Assessment (CIE)		
Sr. No.	Tool	Description
1	Unit Test	The department is conducting two unit tests after completion of every 3 units, each of 30marks. The entire exam schedule will be monitored by unit test coordinator.
		The subject teachers will prepare the Question papers for the respective subject and will be submitted to UT coordinator well in advance.
		The subject teachers will evaluate the performance of students as per the assessment rubrics and submit marks sheets to the UT coordinator in a prescribed format.
		The Cos whose target is not achieved are identified and proceed for Corrective and Preventive Actions.
2	Assignments	After the completion of each unit, subject teachers will provide assignments which include the questions based on CO of the respective unit. Each assignment carries 10 marks.
		Marks are allotted based on- in time completion, discipline and number of questions attempted.
3	Mcqs TEST	MCQs tests are conducted for clearing basic concepts of the students. It is scheduled after the completion of every unit/CO of the respective course.
		In this test, students are asked objective questions based CO. Each question carries 1 mark. Subject teacher prepares a final marks sheet based on the responses of students.
4	Lab Assessments	After completion & conduction of every experiment, subject teacher will prepare summary of every student regarding outcome of that experiment. Through this tool the students will be assessed using different sub tools like skill of handling of equipment, quality of performance, level of understanding through mock oral.

STUDENTS PERFORMANCE RUBRIC (SPR)

Sr. No.	Tool	Description
1	Add On Activity	This spr tool is used to calculate the performance of students through different academic activities related to respective course. This may include any activities that are used to enhance the knowledge of the students to improve overall skills of that course.
		The ACTIVITY WILL BE CARRIED OUT DURING REGULAR ACADEMICS BY SUBJECT TEACHER.
		Marks are allotted based performance of every student and cos obtaining less than 60% of the maximum marks are identified and proceed for corrective and preventive actions.
2	Mini Project/Seminar	This spr tool is used to incorporate the individual & team work, communication along with project management & finance qualities into the students.
		Course related seminars and mini projects (hardware implementations) will be carried out by subject teacher.
		The ACTIVITY WILL BE CARRIED OUT DURING REGULAR ACADEMICS BY SUBJECT TEACHER.
		Marks are allotted based performance of every student and cos obtaining less than 60% of the maximum marks are identified and proceed for corrective and preventive actions.

SEMESTER END EVALUATION (SEE)

Sr. No.	Tool	Description
1	University Theory Exams	University theory exams will be conducted in two parts- INSEM of 30 marks (Based on first three units) and ENDSEM of 70 marks.(Based on 20 marks of first three units and 50 marks of remaining three units)
2	University Practical/Oral Exams	External Practical/Oral examination is conducted by the panel of examiners deputed by the SPPU University.
		Based on the performance of the student in the view of his/her knowledge & understanding, presentation skills, performance during Practical /Oral examination, the marks are allotted to students in consultation with external examiner appointed by SPPU authorities.
		The university prescribed 50/25 marks for practical or oral examinations and 40 % marks are required in order to pass this examination.
3	Term Work	Respective Subject teachers will follow the rubrics, which is set by the department for evaluation of term work marks.
		Based on the performance of the student in the view of his/her knowledge & understanding, presentation skills, performance, the term work marks are allotted to students.
		The university prescribed 50/25 marks for term work examinations and 40 % marks are required in order to pass this examination.
5	Project Stage I & II	Students are asked to submit three topics of their area of interest to the project coordinator. These topics will be based on latest technologies and referring to IEEE or reputed journals. The students are asked to submit these topics based on societal applications, environmental sustainability & usefulness as well as keeping in mind ethical & moral responsibility. A committee will scrutinize these topics based on presentations given by students and finalize one topic. A guide will be allocated to each group based on the area of research of the guide.
		During the academic year the students are asked to report to guide, project coordinator and HOD regarding progress of their project work carried out. A log book is maintained by each project group. Periodical Presentations are conducted by the department to encourage the students and to guide them properly to complete their project work.
		External Project Viva is conducted by the panel of examiners deputed by the University.
		Based on the viva, marks are awarded to students and submitted to the university.

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and

NBA accredited programs: Electronics and Telecommunication Engineering, Information Technology and Electrical Engineering

CO-PO Evaluation Sheet for Signals & Systems

SUBJECT: SIGNALS & SYSTEMS

CLASS: SE(E&TC)

AY/SEM: 2022-23/SEM-II

SUBJECT TEACHER: Dr. Anil Wanare

Direct Assessment

COs	Internal Assessment								External Assessment			Total	
	UNIT TEST		Assignment						Mock Oral	UNIVERSITY THEORY (Online/Insem+Endsem)	UNIVERSITY PR/OR		UNIVERSITY TW
	I	II	1	2	3	4	5	6					
CO1	10		10						10	100	25	25	180
CO2	10			10									180
CO3		10			10								180
CO4		10				10							180
CO5		10					10						180
CO6		10						10					180
Total	20	40	10	10	10	10	10	10	10	100	25	25	

Subject Teacher

HOD

Electronics & Telecommunication Dep
Bhivara Bai Sawant Institute of



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REORD OF UNIT TEST MARKS

SUBJECT: SIGNALS AND SYSTEMS			UNIT TEST MARKS					
CLASS: SE(E&TC)								
AY/SEM: 2022-23 /SEM-II			UNIT TEST-I MARKS		UNIT TEST-II MARKS			
SUBJECT TEACHER: Dr. Anil Laxman Wanare			CO1	CO2	CO3	CO4	CO5	CO6
Roll no	Exam Seat No	Name of Student	10	10	10	10	10	10
1	S190733001	ABHIJEET TATYASAHEB CHAUDHARI	4	6	6	8	7	6
2	S190733002	ADHAU ABHISHEK VINOD	7	8	7	8	6	7
3	S190733003	ADHAV ARYA SHIVAJI	5	6	7	8	6	6
4	S190733004	ANDHARE PRIYA VINAYAK	6	7	7	7	6	7
5	S190733005	ANKUSHE MAHESH RAJENDRA	5	7	7	5	7	6
6	S190733006	AUTI SOHAM RAMDAS	4	8	8	8	8	6
7	S190733007	BAGWAN MUBEEN SAMEER	4	9	9	9	9	9
8	S190733008	BANDE RUSHIKESH LAXMAN	4	8	8	9	8	9
9	S190733009	BHOSALE SHAMBHURANJE SANTOSH	5	7	8	5	8	6
10	S190733010	CHAVAN PIYUSH KAUTIK	5	6	6	5	6	6
11	S190733011	CHAVAN RAVIRAJ ANANDRAO	6	6	6	5	7	6
12	S190733012	CHAVARE ATHARV UMESH	8	7	6	6	6	6
13	S190733013	CHOURE PRANITA BHAUSAHEB	4	5	6	6	6	5
14	S190733014	CIRVI UMESH MOHANLAL	5	8	9	6	8	8
15	S190733015	DHALPE ATHARV VIJAYKUMAR	5	8	8	6	8	8
16	S190733016	DHULGANDE KIRAN SURYAKANT	6	8	8	6	8	8
17	S190733017	SHRADHA BHASKAR DIGHE	6	5	6	6	6	6
18	S190733018	PRANITA JALINDAR GADHAVE	5	5	6	7	6	6
19	S190733019	GAIKWAD PRASAD SANTOSH	8	8	7	7	6	7
20	S190733020	GAVANDI UDDHAV SANJAY	6	7	6	6	6	6
21	S190733021	AVINASH BHARAT GHALME	8	7	7	7	6	6
22	S190733022	GHULE SANKET ARUN	9	9	9	9	9	9
23	S190733023	HOLKAR MANSI MUKUND	8	8	8	8	8	8
24	S190733024	JADHAV SITARAM SUBHASH	5	8	8	8	8	7
25	S190733025	JADHAWAR ASHUTOSH RAMESH	6	6	6	5	6	6
26	S190733026	KADAM ADITYA MANOHAR	5	5	6	5	6	5
27	S190733027	KADAM KUNAL ASHISH	5	8	8	7	8	8
28	S190733028	KAKADE PRANITEE ARJUN	4	9	8	6	9	9

Dr. Anil Laxman Wanare

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29	S190733029	KARLE KAMLESH RAJENDRA	5	8	8	8	8	8
30	S190733030	AJAY SUNIL KASABE	8	8	8	8	8	7
31	S190733031	KATE CHANDRASHEKHAR BHAUSAHEB	6	6	6	5	6	6
32	S190733032	DIVYA ZUMBER KAWALE	5	5	6	5	6	5
33	S190733033	KULKARNI PARJANYA PRAVIN	4	8	8	7	8	8
34	S190733034	KUMBHAR AKSHAY VIJAY	4	9	8	6	9	9
35	S190733035	MORE ANURAG CHAURANG	4	6	6	5	7	6
36	S190733036	MOURYA TUSHAR ANIL	8	7	6	6	6	6
37	S190733037	NAIR ANJALI RAJAN	4	5	6	6	6	5
38	S190733038	NARWADE RITESH SANTOSH	4	8	9	6	8	8
39	S190733039	NIKAM VISHAKHA SUDHAKAR	7	8	8	6	8	8
40	S190733040	NISHANT S PAWAR	8	8	8	6	8	8
41	S190733041	PATHARKAR YOGESH PRAKASH	6	5	6	6	6	6
42	S190733042	PARIGHA SANJAY PATIL	5	5	6	7	6	6
43	S190733043	PATIL RUSHIKESH VISHNU	8	8	7	7	6	7
44	S190733044	PATIL SIDDHANT SOMNATH	6	7	6	6	6	6
45	S190733045	PATIL VAIBHAV RAJENDRA	4	7	7	7	6	6
46	S190733046	PAWAR SAMRUDDHI PRAKASH	4	9	9	9	9	9
47	S190733047	PESHAVE MADHURA SANJAY	4	8	8	8	8	8
48	S190733048	PHAD GAYTRI HARIBHAU	6	6	6	5	7	6
49	S190733049	PRATEEK GAJENDRA HAJARE	8	7	6	6	6	6
50	S190733050	RAMBHAD RUSHITA YOGESH	9	5	6	6	6	5
51	S190733051	RASAL KARTIKI SACHIN	8	8	9	6	8	8
52	S190733052	RASAL UDAY SHARAD	7	8	8	6	8	8
53	S190733053	RODE ABHIRAJ PRAVIN	8	8	8	6	8	8
54	S190733054	RODE ASHWINI TANAJI	6	5	6	6	6	6
55	S190733055	RUDRESH RODE	5	5	6	7	6	6
56	S190733056	ROKADE SAKSHI ANIL	8	8	7	7	6	7
57	S190733057	ROLE ROHIT BHIMRAO	6	7	6	6	6	6
58	S190733058	SALEGAONKAR ANAND GOPALRAO	8	7	7	7	6	6
59	S190733059	SALUNKE GANESH SHIVAJI	9	9	9	9	9	9
60	S190733060	GUND SANDESH SANTOSH	8	8	8	8	8	8
61	S190733061	SARULE ASHISH DEVICHAND	6	6	6	5	7	6
62	S190733062	SAYYED MUSKAN RASULSAB	8	7	6	6	6	6
63	S190733063	SHARDUL NIKITA NITIN	9	5	6	6	6	5
64	S190733064	SHETE RUTUJA RATAN	8	8	9	6	8	8

Pranav

65	S190733065	SHINDE SUSHANT RAJENDRA	7	8	8	6	8	8
66	S190733066	SHITOLE SHIVANI MINANATH	8	8	8	6	8	8
67	S190733067	SINGH SUNDARAM BRAJESH	6	5	6	6	6	6
68	S190733068	ARCHANA SHIVAJI SONAWANE	5	5	6	7	6	6
69	S190733069	SONAWANE SHALAKA SUNIL	8	8	7	7	6	7
70	S190733070	SOPANE DNYANESHWARI SAHEBRAO	6	7	6	6	6	6
71	S190733071	TALE PRATIK SUBHASHRAO	8	7	7	7	6	6
72	S190733072	THAKARE SANDESH SHANKAR	9	9	9	9	9	9
73	S190733073	THAKUR ASHUTOSH RAM	8	8	8	8	8	8
74	S190733074	UBALE KUBER ANIL	8	8	8	8	8	7
75	S190733075	WAHUL DIPAK GANESH	6	6	6	5	6	5
76	S190733076	WALKIKAR SANIYA DINESH	7	4	4	4	4	4
77	S190733077	YENGE ANTESHWAR NAMDEV	6	6	7	6	6	6
AVERAGE MARKS			6.25	7.01	7.09	6.56	6.97	6.81
NO. OF STUDENTS SCORED MORE THAN 60% MARKS			48	62	76	64	76	69
TOTAL NO. OF STUDENTS			77					
% ATTAINMENT LEVEL			62.34	80.52	98.70	83.12	98.70	89.61
CO ATTAINMENT			1.00	3.00	3.00	3.00	3.00	3.00

J. W. Anand

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REORD OF ASSIGNMENT MARKS								
SUBJECT: SIGNALS AND SYSTEMS			ASSIGNMENT MARKS					
CLASS: SE(E&TC)								
AY/SEM: 2022-23 /SEM-II			A1	A2	A3	A4	A5	A6
SUBJECT TEACHER: Dr. Anil Laxman Wanare			CO1	CO2	CO3	CO4	CO5	CO6
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9	S190733009	BHOSALE SHAMBHURANJE SANTOSH	7	7	9	7	7	9
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11	S190733011	CHAVAN RAVIRAJ ANANDRAO	7	8	9	9	7	7
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13	S190733013	CHOURE PRANITA BHAUSAHEB	7	9	9	7	7	7
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22	S190733022	GHULE SANKET ARUN	7	7	7	7	7	9
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24	S190733024	JADHAV SITARAM SUBHASH	7	7	8	9	8	7
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27	S190733027	KADAM KUNAL ASHISH	7	7	7	7	7	7
28	S190733028	KAKADE PRANITEE ARJUN	7	7	7	8	9	7
29	S190733029	KARLE KAMLESH RAJENDRA	7	9	7	7	9	8
30	S190733030	AJAY SUNIL KASABE	9	9	7	7	9	7
31	S190733031	KATE CHANDRASHEKHAR BHAUSAHEB	9	9	9	8	9	8
32	S190733032	DIVYA ZUMBER KAWALE	7	7	9	7	7	9
33	S190733033	KULKARNI PARJANYA PRAVIN	8	8	7	7	7	8
34	S190733034	KUMBHAR AKSHAY VIJAY	7	8	9	9	7	7

Anil Wanare

35	S190733035	MORE ANURAG CHAURANG	7	7	7	8	7	9	45
36	S190733036	MOURYA TUSHAR ANIL	7	9	9	7	7	7	46
37	S190733037	NAIR ANJALI RAJAN	7	7	8	9	8	7	46
38	S190733038	NARWADE RITESH SANTOSH	8	9	7	7	8	8	47
39	S190733039	NIKAM VISHAKHA SUDHAKAR	9	7	9	7	9	7	48
40	S190733040	NISHANT S PAWAR	7	7	7	7	7	7	42
41	S190733041	PATHARKAR YOGESH PRAKASH	7	7	7	8	9	7	45
42	S190733042	PARIGHA SANJAY PATIL	7	9	7	7	9	8	47
43	S190733043	PATIL RUSHIKESH VISHNU	9	9	7	7	9	7	48
44	S190733044	PATIL SIDDHANT SOMNATH	9	9	9	8	9	8	52
45	S190733045	PATIL VAIBHAV RAJENDRA	7	7	9	7	7	9	46
46	S190733046	PAWAR SAMRUDDHI PRAKASH	8	8	7	7	7	8	45
47	S190733047	PESHAVE MADHURA SANJAY	7	8	9	9	7	7	47
48	S190733048	PHAD GAYTRI HARIBHAU	7	7	7	8	7	9	45
49	S190733049	PRATEEK GAJENDRA HAJARE	7	9	9	7	7	7	46
50	S190733050	RAMBHAD RUSHITA YOGESH	7	7	7	9	7	9	46
51	S190733051	RASAL KARTIKI SACHIN	7	7	8	9	8	7	46
52	S190733052	RASAL UDAY SHARAD	8	9	7	7	8	8	47
53	S190733053	RODE ABHIRAJ PRAVIN	9	7	9	7	9	7	48
54	S190733054	RODE ASHWINI TANAJI	7	7	7	7	7	7	42
55	S190733055	RUDRESH RODE	7	7	7	8	9	7	45
56	S190733056	ROKADE SAKSHI ANIL	7	9	7	7	9	8	47
57	S190733057	ROLE ROHIT BHIMRAO	9	9	7	7	9	7	48
58	S190733058	SALEGAONKAR ANAND GOPALRAO	9	9	9	8	9	8	52
59	S190733059	SALUNKE GANESH SHIVAJI	7	7	9	7	7	9	46
60	S190733060	GUND SANDESH SANTOSH	7	7	8	9	8	7	46
61	S190733061	SARULE ASHISH DEVICHAND	8	9	7	7	8	8	47
62	S190733062	SAYYED MUSKAN RASULSAB	9	7	9	7	9	7	48
63	S190733063	SHARDUL NIKITA NITIN	7	7	7	7	7	7	42
64	S190733064	SHETE RUTUJA RATAN	7	7	7	8	9	7	45
65	S190733065	SHINDE SUSHANT RAJENDRA	7	9	7	7	9	8	47
66	S190733066	SHITOLE SHIVANI MINANATH	9	9	7	7	9	7	48
67	S190733067	SINGH SUNDARAM BRAJESH	9	9	9	8	9	8	52
68	S190733068	ARCHANA SHIVAJI SONAWANE	7	7	9	7	7	9	46
69	S190733069	SONAWANE SHALAKA SUNIL	8	8	7	7	7	8	45
70	S190733070	SOPANE DNYANESHWARI SAHEBRAO	7	8	9	9	7	7	47
71	S190733071	TALE PRATIK SUBHASHRAO	7	7	7	8	7	9	45
72	S190733072	THAKARE SANDESH SHANKAR	7	9	9	7	7	7	46
73	S190733073	THAKUR ASHUTOSH RAM	7	7	7	9	7	9	46
74	S190733074	UBALE KUBER ANIL	7	9	7	7	7	7	44
75	S190733075	WAHUL DIPAK GANESH	7	7	9	9	7	7	46

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76	S190733076	WALKIKAR SANIYA DINESH	7	7	8	8	7	7	44
77	S190733077	YENGE ANTESHWAR NAMDEV	7	7	8	9	9	9	49
AVERAGE			7.56	7.84	7.83	7.65	7.84	7.66	46.39
NO. OF STUDENTS SCORED MORE THAN 60% MARKS			77	77	77	77	77	77	
TOTAL NO. OF STUDENTS			77						
% ATTAINMENT LEVEL			100.00	100.00	100.00	100.00	100.00	100.00	
CO ATTAINMENT			3.00	3.00	3.00	3.00	3.00	3.00	

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 Wagholi, Pune- 412 207

MOCK ORAL TEST

SUBJECT: SIGNALS AND SYSTEMS			MOC
CLASS: SE(E&TC)			MARKS
AY/SEM: 2022-23 /SEM-II			CO1-CO6
SUBJECT TEACHER: Dr. Anil Laxman Wanare			
S. No.	Exam Seat No	Name of Student	10
1	S190733001	ABHIJEET TATYASAHEB CHAUDHARI	8
2	S190733002	ADHAU ABHISHEK VINOD	9
3	S190733003	ADHAV ARYA SHIVAJI	8
4	S190733004	ANDHARE PRIYA VINAYAK	9
5	S190733005	ANKUSHE MAHESH RAJENDRA	8
6	S190733006	AUTI SOHAM RAMDAS	8
7	S190733007	BAGWAN MUBEEN SAMEER	9
8	S190733008	BANDE RUSHIKESH LAXMAN	7
9	S190733009	BHOSALE SHAMBHURANJE SANTOSH	8
10	S190733010	CHAVAN PIYUSH KAUTIK	8
11	S190733011	CHAVAN RAVIRAJ ANANDRAO	8
12	S190733012	CHAVARE ATHARV UMESH	8
13	S190733013	CHOURE PRANITA BHAUSAHEB	7
14	S190733014	CIRVI UMESH MOHANLAL	8
15	S190733015	DHALPE ATHARV VIJAYKUMAR	9
16	S190733016	DHULGANDE KIRAN SURYAKANT	8
17	S190733017	SHRADHA BHASKAR DIGHE	9
18	S190733018	PRANITA JALINDAR GADHAVE	8
19	S190733019	GAIKWAD PRASAD SANTOSH	8
20	S190733020	GAVANDI UDDHAV SANJAY	9
21	S190733021	AVINASH BHARAT GHALME	7
22	S190733022	GHULE SANKET ARUN	8
23	S190733023	HOLKAR MANSI MUKUND	8
24	S190733024	JADHAV SITARAM SUBHASH	8
25	S190733025	JADHAWAR ASHUTOSH RAMESH	8
26	S190733026	KADAM ADITYA MANOHAR	7

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27	S190733027	KADAM KUNAL ASHISH	8
28	S190733028	KAKADE PRANITEE ARJUN	9
29	S190733029	KARLE KAMLESH RAJENDRA	8
30	S190733030	AJAY SUNIL KASABE	9
31	S190733031	KATE CHANDRASHEKHAR BHAUSAHEB	8
32	S190733032	DIVYA ZUMBER KAWALE	8
33	S190733033	KULKARNI PARJANYA PRAVIN	9
34	S190733034	KUMBHAR AKSHAY VIJAY	7
35	S190733035	MORE ANURAG CHAURANG	8
36	S190733036	MOURYA TUSHAR ANIL	8
37	S190733037	NAIR ANJALI RAJAN	8
38	S190733038	NARWADE RITESH SANTOSH	8
39	S190733039	NIKAM VISHAKHA SUDHAKAR	7
40	S190733040	NISHANT S PAWAR	8
41	S190733041	PATHARKAR YOGESH PRAKASH	9
42	S190733042	PARIGHA SANJAY PATIL	8
43	S190733043	PATIL RUSHIKESH VISHNU	9
44	S190733044	PATIL SIDDHANT SOMNATH	8
45	S190733045	PATIL VAIBHAV RAJENDRA	8
46	S190733046	PAWAR SAMRUDDHI PRAKASH	9
47	S190733047	PESHAVE MADHURA SANJAY	7
48	S190733048	PHAD GAYTRI HARIBHAU	8
49	S190733049	PRATEEK GAJENDRA HAJARE	8
50	S190733050	RAMBHAD RUSHITA YOGESH	8
51	S190733051	RASAL KARTIKI SACHIN	8
52	S190733052	RASAL UDAY SHARAD	7
53	S190733053	RODE ABHIRAJ PRAVIN	8
54	S190733054	RODE ASHWINI TANAJI	9
55	S190733055	RUDRESH RODE	8
56	S190733056	ROKADE SAKSHI ANIL	9
57	S190733057	ROLE ROHIT BHIMRAO	8
58	S190733058	SALEGAONKAR ANAND GOPALRAO	8
59	S190733059	SALUNKE GANESH SHIVAJI	9
60	S190733060	GUND SANDESH SANTOSH	7

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61	S190733061	SARULE ASHISH DEVICHAND	8
62	S190733062	SAYYED MUSKAN RASULSAB	8
63	S190733063	SHARDUL NIKITA NITIN	9
64	S190733064	SHEETE RUTUJA RATAN	8
65	S190733065	SHINDE SUSHANT RAJENDRA	9
66	S190733066	SHITOLE SHIVANI MINANATH	8
67	S190733067	SINGH SUNDARAM BRAJESH	8
68	S190733068	ARCHANA SHIVAJI SONAWANE	9
69	S190733069	SONAWANE SHALAKA SUNIL	7
70	S190733070	SOPANE DNYANESHWARI SAHEBRAO	8
71	S190733071	TALE PRATIK SUBHASHRAO	8
72	S190733072	THAKARE SANDESH SHANKAR	8
73	S190733073	THAKUR ASHUTOSH RAM	8
74	S190733074	UBALE KUBER ANIL	7
75	S190733075	WAHUL DIPAK GANESH	8
76	S190733076	WALKIKAR SANIYA DINESH	8
77	S190733077	YENGGE ANTESHWAR NAMDEV	7
AVERAGE			8.08
NO. OF STUDENTS SCORED MORE THAN 60% MARKS			77
TOTAL NO. OF STUDENTS			77
% ATTAINMENT LEVEL			100.00
CO ATTAINMENT			3.00

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RECORD OF UNIVERISTY EXAM MARKS

SUBJECT: SIGNALS AND SYSTEMS			UNIVERSITY MARKS		
CLASS: SE(E&TC)			TH (Online/ Insem+Endsem)	TW	Total
AY/SEM: 2022-23 /SEM-II			CO1-CO6		Total
SUBJECT TEACHER: Dr. Anil Laxman Wanare					Total
S. No.	Exam Seat no	Name of Student	100	25	125
1	S190733001	ABHIJEET TATYASAHEB CHAUDHARI	59	23	82
2	S190733002	ADHAU ABHISHEK VINOD	16	18	34
3	S190733003	ADHAV ARYA SHIVAJI	26	19	45
4	S190733004	ANDHARE PRIYA VINAYAK	48	20	68
5	S190733005	ANKUSHE MAHESH RAJENDRA	38	19	57
6	S190733006	AUTI SOHAM RAMDAS	50	19	69
7	S190733007	BAGWAN MUBEEN SAMEER	22	18	40
8	S190733008	BANDE RUSHIKESH LAXMAN	30	20	50
9	S190733009	BHOSALE SHAMBHURANJE SANTOSH	46	23	69
10	S190733010	CHAVAN PIYUSH KAUTIK	52	20	72
11	S190733011	CHAVAN RAVIRAJ ANANDRAO	48	18	66
12	S190733012	CHAVARE ATHARV UMESH	37	19	56
13	S190733013	CHOURE PRANITA BHAUSAHEB	36	21	57
14	S190733014	CIRVI UMESH MOHANLAL	89	24	113
15	S190733015	DHALPE ATHARV VIJAYKUMAR	45	18	63
16	S190733016	DHULGANDE KIRAN SURYAKANT			0
17	S190733017	SHRADHA BHASKAR DIGHE	45	20	65
18	S190733018	PRANITA JALINDAR GADHAVE	51	24	75
19	S190733019	GAIKWAD PRASAD SANTOSH	40	19	59
20	S190733020	GAVANDI UDDHAV SANJAY	21	15	36
21	S190733021	AVINASH BHARAT GHALME	67	23	90
22	S190733022	GHULE SANKET ARUN	28	19	47
23	S190733023	HOLKAR MANSI MUKUND	55	21	76
24	S190733024	JADHAV SITARAM SUBHASH	20	22	42

Anil Laxman Wanare

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25	S190733025	JADHAWAR ASHUTOSH RAMESH	20	15	35
26	S190733026	KADAM ADITYA MANOHAR	48	15	63
27	S190733027	KADAM KUNAL ASHISH	23	20	43
28	S190733028	KAKADE PRANITEE ARJUN	48	24	72
29	S190733029	KARLE KAMLESH RAJENDRA	30	23	53
30	S190733030	AJAY SUNIL KASABE	13	12	25
31	S190733031	KATE CHANDRASHEKHAR BHAUSAHEB	52	21	73
32	S190733032	DIVYA ZUMBER KAWALE	42	21	63
33	S190733033	KULKARNI PARJANYA PRAVIN	50	23	73
34	S190733034	KUMBHAR AKSHAY VIJAY	54	19	73
35	S190733035	MORE ANURAG CHAURANG	15	12	27
36	S190733036	MOURYA TUSHAR ANIL	29	19	48
37	S190733037	NAIR ANJALI RAJAN	76	24	100
38	S190733038	NARWADE RITESH SANTOSH	23	19	42
39	S190733039	NIKAM VISHAKHA SUDHAKAR	42	23	65
40	S190733040	NISHANT S PAWAR	36	18	54
41	S190733041	PATHARKAR YOGESH PRAKASH	34	12	46
42	S190733042	PARIGHA SANJAY PATIL	45	23	68
43	S190733043	PATIL RUSHIKESH VISHNU	67	20	87
44	S190733044	PATIL SIDDHANT SOMNATH	38	18	56
45	S190733045	PATIL VAIBHAV RAJENDRA	21	18	39
46	S190733046	PAWAR SAMRUDDHI PRAKASH	50	20	70
47	S190733047	PESHAVE MADHURA SANJAY	52	22	74
48	S190733048	PHAD GAYTRI HARIBHAU	36	21	57
49	S190733049	PRATEEK GAJENDRA HAJARE	38	18	56
50	S190733050	RAMBHAD RUSHITA YOGESH	63	19	82
51	S190733051	RASAL KARTIKI SACHIN	63	19	82
52	S190733052	RASAL UDAY SHARAD	55	19	74
53	S190733053	RODE ABHIRAJ PRAVIN	67	20	87
54	S190733054	RODE ASHWINI TANAJI	77	23	100
55	S190733055	RUDRESH RODE	15	14	29
56	S190733056	ROKADE SAKSHI ANIL	48	19	67
57	S190733057	ROLE ROHIT BHIMRAO	29	18	47
58	S190733058	SALEGAONKAR ANAND GOPALRAO	43	18	61

M. W. Anand

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59	S190733059	SALUNKE GANESH SHIVAJI	32	18	50
60	S190733060	GUND SANDESH SANTOSH	19	15	34
61	S190733061	SARULE ASHISH DEVICHAND	58	15	73
62	S190733062	SAYYED MUSKAN RASULSAB	65	22	87
63	S190733063	SHARDUL NIKITA NITIN	67	22	89
64	S190733064	SHETE RUTUJA RATAN	53	21	74
65	S190733065	SHINDE SUSHANT RAJENDRA	19	17	36
66	S190733066	SHITOLE SHIVANI MINANATH	62	22	84
67	S190733067	SINGH SUNDARAM BRAJESH	65	24	89
68	S190733068	ARCHANA SHIVAJI SONAWANE	62	20	82
69	S190733069	SONAWANE SHALAKA SUNIL	67	21	88
70	S190733070	SOPANE DNYANESHWARI SAHEBRAO	18	19	37
71	S190733071	TALE PRATIK SUBHASHRAO	74	20	94
72	S190733072	THAKARE SANDESH SHANKAR	34	20	54
73	S190733073	THAKUR ASHUTOSH RAM	39	20	59
74	S190733074	UBALE KUBER ANIL	46	20	66
75	S190733075	WAHUL DIPAK GANESH	28	18	46
76	S190733076	WALKIKAR SANTIYA DINESH	48	22	70
77	S190733077	YENGE ANTESHWAR NAMDEV	47	21	68
AVERAGE			43.61	19.58	62.36
NO. STUDENTS SCORED MORE THAN THRESHOLD MARKS			44	76	Threshold= 40% of the Marks
TOTAL NO. OF STUDENTS			77	77	
% ATTAINMENT LEVEL			57.14	98.70	
CO ATTAINMENT			1.00	3.00	

S. Wankar

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 Technology & Research
 Wagholi, Pune- 412 207



SUBJECT: SIGNALS AND SYSTEMS								
CLASS: SE(E&TC)								
AY/SEM: 2022-23 /SEM-II								
SUBJECT TEACHER: Dr. Anil Laxman Wanare								
Direct Assessment								
COs	Internal Assessment				External Assessment			OVERALL CO ATTAINMENT = (0.3*A+0.7*B)
	ATTAINMENT OF UT	ATTAINMENT OF ASSGN	ATTAINMENT OF MOCK ORAL	AVERAGE OF CO ATTAINMENT (A)	ATTAINMENT OF UNIVERSITY EXAM MARKS	ATTAINMENT OF UNIVERSITY TW	Average (B)	
CO1	1.00	3.00	3.00	2.33	1.00	3.00	2.00	2.10
CO2	3.00	3.00	3.00	3.00	1.00	3.00	2.00	2.30
CO3	3.00	3.00	3.00	3.00	1.00	3.00	2.00	2.30
CO4	3.00	3.00	3.00	3.00	1.00	3.00	2.00	2.30
CO5	3.00	3.00	3.00	3.00	1.00	3.00	2.00	2.30
CO6	3.00	3.00	3.00	3.00	1.00	3.00	2.00	2.30
Average								2.27

Anil Wanare

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Wagholi, Pune-412 207

SUBJECT: SIGNALS AND SYSTEMS	
CLASS: SE(E&TC)	
AY/SEM: 2022-23 /SEM-II	
SUBJECT TEACHER: Dr. Anil Laxman Wanare	

CO CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
204191.1	2	1	1	-	-	-	-	-	-	-	-	1
204191.2	2	1	1	-	3	-	-	-	-	-	-	2
204191.3	3	2	1	-	1	-	-	-	-	-	-	1
204191.4	3	2	1	1	-	-	-	-	-	-	-	2
204191.5	3	2	1	1	-	-	-	-	-	-	-	2
204191.6	3	2	1	1	2	-	-	-	-	-	-	2
Average	2.67	1.67	1.00	1.00	2.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.67

CO CODE	PSO1	PSO2	PSO3
404189.1	1	2	1
404189.2	2	3	2
404189.3	2	2	3
404189.4	1	-	3
404189.5	2	-	3
404189.6	2	2	3
Average	1.67	2.25	2.50

POs & PSOs Attainment

PO or PSO=(Weighted Average value of PO*CO Attainment Average)/3

Weighted Average is average matrix of CO PO PSO Mapping

RESULT OF PO & PSO ATAINMENT

POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
WEIGHTED AVERAGE	2.67	1.67	1.00	1.00	2.00	0	0	0	0	0	0	1.67	1.67	2.25	2.5
ATTAINMENT LEVEL	2.01	1.26	0.76	0.76	1.51	0.00	0.00	0.00	0.00	0.00	0.00	1.26	1.26	1.70	1.89

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BHIVARABAI SAWANT INSTITUTE OF TECHNOLOGY AND RESEARCH, PUNE

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Approved By AICTE, New Delhi, Govt. Of Maharashtra & Affiliated To Savitribai Phule
Pune University

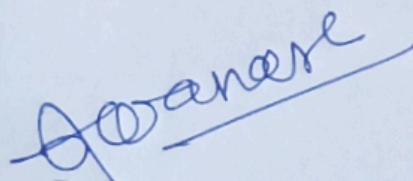
Accredited by NAAC with a B++ grade
and

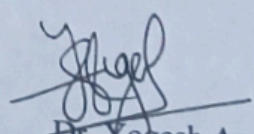
NBA accredited programs: Electronics and Telecommunication Engineering, Information
Technology and Electrical Engineering

CLASS-SE E&TC: SEM-II SUBJECT-SIGNALS AND SYSTEMS (A.Y.2022-2023)

CORRECTIVE ACTION

1. Remedial classes conducted
2. Awareness of Signals analysis by using computational tools like MATLAB and OCTAVE.
3. BSNL Visit will be conducted to get awareness of signals and systems
4. Incorporate practical applications of signals and systems to enhance students' ability to apply theoretical concepts to real-world problems.
5. The hands-on projects, case studies, or industry collaborations.


Dr. Anil Wanare
Subject Teacher


Dr. Yogesh Angal
HoD E&TC Engg.
Electronics & Telecommunication Dep
Bhivarabai Sawant Institute of
Technology & Research
Wagholi, Pune- 412 207