



## KSIT BANGLORE

### DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING COURSE FILE

NAME OF THE STAFF : Dr. SUREKHA BORRA  
SUBJECT CODE/NAME : 18EC646/ PYTHON APPLICATION  
PROGRAMMING  
SEMESTER/YEAR : VI/III  
ACADEMIC YEAR : 2022 – 2023  
BRANCH : ECE (A & B SECTIONS)

COURSE IN-CHARGE

  
HOD



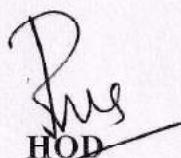
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## K. S. INSTITUTE OF TECHNOLOGY

### VISION

"To impart quality technical education with ethical values, employable skills and research to achieve excellence".

### MISSION

- To attract and retain highly qualified, experienced & committed faculty.
- To create relevant infrastructure.
- Network with industry & premier institutions to encourage emergence of new ideas by providing research & development facilities to strive for academic excellence.
- To inculcate the professional & ethical values among young students with employable skills & knowledge acquired to transform the society.

## **DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

### **VISION**

**"To achieve excellence in academics and research in Electronics & Communication Engineering to meet societal need".**

### **MISSION**

- To impart quality technical education with the relevant technologies to produce industry ready engineers with ethical values.
- To enrich experiential learning through active involvement in professional clubs & societies.
- To promote industry-institute collaborations for research & development.



**K.S. INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT: ELECTRONICS AND COMMUNICATION ENGG.**

**PROGRAM EDUCATIONAL OBJECTIVES (PEO'S)**

PEO1: Excel in professional career by acquiring domain knowledge.

PEO2: Motivation to pursue higher Education and research by adopting technological innovations by continuous learning through professional bodies and clubs.

PEO3: To inculcate effective communication skills, teamwork, ethics and leadership qualities.

**PROGRAM SPECIFIC OUTCOMES (PSO'S)**

PSO1: Graduate should be able to understand the fundamentals in the field of Electronics and Communication and apply the same to various areas like Signal processing, embedded systems, Communication & Semiconductor technology.

PSO2: Graduate will demonstrate the ability to design, develop solutions for Problems in Electronics and Communication Engineering using hardware and software tools with social concerns.

## **PO: PROGRAM OUTCOMES**

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and engg. specialization to the solution of complex engineering problems.
2. Problem analysis: Identify, formulate, research literature, and analyze engineering problems to arrive at substantiated conclusions using first principles of mathematics, natural, and engineering sciences.
3. Design/development of solutions: Design solutions for complex engineering problems and design system components, processes to meet the specifications with consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. Conduct investigations of complex problems: Use research-based knowledge including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
6. 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.
7. 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.
8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. Individual and team work: Function effectively as an individual, and as a member or leader in teams, and in multidisciplinary settings.
10. Communication: Communicate effectively with the engineering community and with society at large. Be able to comprehend and write effective reports documentation. Make effective presentations, and give and receive clear instructions.
11. Project management and finance: Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team. Manage projects in multidisciplinary environments.
12. 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.



# K. S. INSTITUTE OF TECHNOLOGY

#14, Raghuvanahalli, Kanakapura Main Road, Bengaluru-560109

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

**Course:** Python Application Programming

**Academic year:** 2022-23

**Batch:** 2020-24

**Course In Charge:** Dr. B. Surekha

**Type:** Elective

**Course Code:** 18EC646

**No of Hours per week**

Theory (Lecture Class)	Practical/Field Work/Allied Activities	Total/Week	Total teaching hours
4	0	4	50

**Marks**

Internal Assessment	Examination	Total	Credits
40	60	100	3

### Aim/Objective of the Course:

This Course will enable students to:

1. Learn Syntax and Semantics and create Functions in Python.
2. Handle Strings and Files in Python.
3. Understand Lists, Dictionaries and Regular expressions in Python.
4. Implement Object Oriented Programming concepts in Python
5. Build Web Services and introduction to Network and Database Programming in python

**Course Learning Outcomes:** At the end of the course, the student will be able to,

<b>CO1</b>	<b>Make use of</b> Python syntax and semantics, and <b>build</b> functions with variables, expressions, and statements.	Applying(K3)
<b>CO2</b>	<b>Utilize</b> the concepts of Iterations and Strings to <b>model</b> File Systems.	Applying(K3)
<b>CO3</b>	<b>Make use of</b> core data structures like Lists, Dictionaries and Regular Expressions to <b>build</b> Python programs.	Applying(K3)
<b>CO4</b>	<b>Apply</b> classes, objects, and functions to <b>develop</b> Object-Oriented Programs in Python.	Applying(K3)
<b>CO5</b>	<b>Make use of</b> Network Programming, Web Services and Databases to <b>construct</b> exemplary applications related to Python.	Applying(K3)

### Syllabus Content:

#### Module 1

Why should you learn to write programs, Variables, expressions and statements?

Conditional execution, Functions

LO: At the end of this session the student will be able to,

1. Understand the concepts of statements and conditional execution.
2. Understand the concepts of functions.
3. Write programs using Python with Variables, expressions and statements

**CO1**

10 Hours

PO1 - 3

PO2 - 3

PO3 - 1

PO4 - 1

PO12 - 2

PSO1 - 3

PSO2 - 2

**CO2**

10 Hours

PO1 - 3

PO2 - 3

PO3 - 1

PO4 - 1

PO12 - 2

PSO1 - 3

PSO2 - 2

#### Module 2:

Iteration, Strings, Files

LO: At the end of this session the student will be able to,

1. Understand the concepts of Iteration.
2. Understand the concepts of Strings.
3. Understand the concepts of Files
4. Write programs using Python handling loops, Strings and Files

<b>Module 3:</b> Lists, Dictionaries, Tuples, Regular Expressions LO: At the end of this session the student will be able to, 1. Understand the concepts of Lists. 2. Understand the concepts of Dictionaries. 3. Understand the concepts of Tuples and Regular Expressions. 4. Write programs using Python data structures.	<b>CO3</b> 10 Hours PO1 - 3 PO2 - 2 PO3 - 1 PO4 - 1 PO12 - 1 PSO1 - 2 PSO2 - 2
<b>Module 4:</b> Classes and objects, Classes and functions, Classes and methods LO: At the end of this session the student will be able to, 1. Understand the concepts of Classes and Objects. 2. Understand the concepts of Classes and functions. 3. Understand the concepts of Classes and methods. 4. Write Object-Oriented Python Programs.	<b>CO4</b> 10 Hours PO1 - 3 PO2 - 2 PO3 - 1 PO4 - 1 PO12 - 1 PSO1 - 2 PSO2 - 2
<b>Module 5:</b> Networked programs, Using Web Services, Using databases and SQL LO: At the end of this session the student will be able to, 1. Understand the concepts of Network Programs 2. Understand the concepts of Web services. 3. Develop Programs for exemplary applications	<b>CO5</b> 10 Hours PO1 - 3 PO2 - 2 PO3 - 2 PO4 - 2 P12 - 2 PSO1 - 3 PSO2 - 2
<b>Textbooks:</b> -  1. Charles R. Severance, "Python for Everybody: Exploring Data Using Python 3", 1 Edition, Create Space Independent Publishing Platform, 2016 (Chapters 1 — 13, 15). 2. Allen B. Downey, "Think Python: How to Think Like a Computer Scientist", 2n Edition, Green Tea Press, 2015 (Chapters 15,16,17)	
<b>Reference Books:</b>  1. Mark Lutz, "Programming Python", 4th Edition, O'Reilly Media, 2011.ISBN-13z978-9350232873. 2. Wesley J Chun, "Core Python Applications Programming", 3rd Edition, Pearson Education India, 2015. ISBN—13: 978—9332555365. 3. Reema Thareja, "Python Programming using problem solving approach", Oxford university press, 2017	
<b>Useful Websites</b>  1. <a href="https://nptel.ac.in/courses/106106145/">https://nptel.ac.in/courses/106106145/</a> 2. <a href="https://nptel.ac.in/courses/117106113/34">https://nptel.ac.in/courses/117106113/34</a> 3. <a href="https://nptel.ac.in/courses/106105166/26">https://nptel.ac.in/courses/106105166/26</a>	
<b>Useful Journals</b>  1. <i>Journal of Computing Sciences in Colleges</i> 2. <i>Journal of Computational Science</i> 3. <i>International Journal of Computing Science and Mathematics</i>	
<b>Teaching and Learning Methods:</b>  1. Lecture class: 40 hrs. 2. Self-study: 5hrs. 3. Mini Projects-Seminars: 10hrs.	

## Justification for CO-PO /PSO mapping

CO-PO MAPPING Justification Table				
Sl No.	CO	PO	Number of Key Elements of PO Mapped To CO	Justification
<b>CO1:</b> Make use of Python syntax and semantics, and build functions with variables, expressions, and statements. <b>CO2:</b> Utilize the concepts of Iterations and Strings to model File Systems.				
1	CO1, CO2	1	<b>The students will be able to apply the knowledge of</b> <ul style="list-style-type: none"> <li>• Mathematics</li> <li>• Science,</li> <li>• Engineering fundamentals</li> </ul> to the solution of complex engineering problems	3 Keywords are mapped. Hence strength is 3
2		2	<b>The students will be able to</b> <ul style="list-style-type: none"> <li>• Identify</li> <li>• Formulate</li> <li>• Analyse</li> </ul> using first principles of mathematics and engineering sciences.	3 Keywords are mapped. Hence strength is 3
3		3	<b>The students will be able to</b> <ul style="list-style-type: none"> <li>• Design solutions for complex engineering problems</li> </ul>	1 Keyword mapped. Hence strength is 1
4		4	<b>The students will be able to</b> <ul style="list-style-type: none"> <li>• Use research-based knowledge for analysis and interpretation of data</li> </ul>	1 Keyword mapped. Hence strength is 1
5		5	<b>The students will be able to</b> <ul style="list-style-type: none"> <li>• Select</li> <li>• Apply</li> </ul> appropriate Python library tools to complex engineering activities	2 Keywords are mapped. Hence strength is 2
6		6	<b>The students will be able to apply reasoning to assess issues</b> <ul style="list-style-type: none"> <li>• Societal</li> <li>• Health</li> <li>• Safety .</li> </ul>	3 Keywords are mapped. Hence Strength is 3
7		7	<b>The students will be able to</b> <ul style="list-style-type: none"> <li>• understand the impact of the professional engineering solutions in societal and environmental contexts</li> </ul>	3 Keywords are mapped. Hence strength is 3
8		9	<b>The students will be able to work effectively in</b> <ul style="list-style-type: none"> <li>• Multidisciplinary settings</li> <li>• As an Individual</li> <li>• As a team member</li> </ul>	3 keywords are mapped. Hence strength is 3
9		10	<b>The students will be able to communicate effectively by</b> <ul style="list-style-type: none"> <li>• Comprehending</li> <li>• Write Reports</li> <li>• Presentations</li> </ul>	3 Keywords are mapped. Hence strength is 3
10		11	<b>The students will be able to</b> <ul style="list-style-type: none"> <li>• Demonstrate knowledge and understanding of engineering</li> </ul>	1 Keyword mapped. Hence strength is 1
11		12	<b>The students will be able to engage in knowledge upgradation through</b> <ul style="list-style-type: none"> <li>• Independent learning</li> <li>• Lifelong learning</li> </ul>	2 Keywords are mapped. Hence strength is 2
12		PSO1	<b>The students will be able to understand and apply the fundamentals of ECE in</b> <ul style="list-style-type: none"> <li>• Signal Processing</li> <li>• Embedded systems</li> <li>• Communication</li> </ul>	3 Keywords are mapped. Hence strength is 3
13		PSO2	<b>The students will have the ability to</b> <ul style="list-style-type: none"> <li>• Design and develop solutions</li> <li>• use modern tools for societal concern</li> </ul>	2 Keywords are mapped. Hence strength is 2
<b>CO3:</b> Make use of core data structures like Lists, Dictionaries and Regular Expressions to build Python programs. <b>CO4:</b> Apply classes, objects, and functions to develop Object-Oriented Programs in Python.				
14	CO3, CO4	1	<b>The students will be able to apply the knowledge of</b> <ul style="list-style-type: none"> <li>• mathematics</li> <li>• science</li> <li>• engineering fundamentals</li> </ul>	3 Keywords are mapped. Hence Strength is 3

**Assessment:**

Type of test/examination: Written examination

**Continuous Internal Evaluation (CIE):** 40 marks (30 Marks IA+10 Marks Assignment: Average of 3 tests will be considered)**Semester End Exam (SEE):** 60 marks (students have to answer all main questions)

Test duration: 1 :30 hr

Examination duration: 3 hrs

***CO to PO Mapping***

<b>PO1:</b> Science and engineering Knowledge	<b>PO7:</b> Environment and Society
<b>PO2:</b> Problem Analysis	<b>PO8:</b> Ethics
<b>PO3:</b> Design & Development	<b>PO9:</b> Individual & Teamwork
<b>PO4:</b> Investigations of Complex Problems	<b>PO10:</b> Communication
<b>PO5:</b> Modern Tool Usage	<b>PO11:</b> Project Mgmt. & Finance
<b>PO6:</b> Engineer & Society	<b>PO12:</b> Lifelong Learning

**PSO1:** Graduate should be able to understand the fundamentals in the field of Electronics & Communication and apply the same to various areas like Signal processing, Embedded systems, Communication & Semiconductor technology.

**PSO2:** Graduate will demonstrate the ability to design, develop solutions for problems in Electronics & Communication Engineering using hardware and software tools with social concerns.

CO	Bloom's Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	K3	3	3	1	1	2	3	3	-	3	3	1	2	3	2
CO2	K3	3	3	1	1	2	3	3	-	3	3	1	2	3	2
CO3	K3	3	2	1	1	2	1	1	-	1	1	1	1	2	2
CO4	K3	3	2	1	1	2	1	1	-	1	1	1	1	2	2
CO5	K3	3	3	3	2	2	1	1	-	1	1	1	1	2	2
18EC53 before CBS		3	2	2	1.2	-	-	-	-	-	-	-	-	3	2
Strength for Content Beyond Syllabus activity: Power Point Presentation		-	-	-	-	2	1.8	1.8	-	1.8	1.8	1	1.6	-	-
18EC53 after CBS		3	2.6	1.4	1.2	2	1.8	1.8	-	1.8	1.8	1	1.6	2.6	2

**CO PO mapping for the events conducted after gap identification.**

Sl. No.	Gap Identification	Activity Planned to fill the gap	CO	Relevant PO Mapping
1	PO5- PO12	Mini-Project	CO1, CO2, CO3, CO4, CO5	PO5-PO7, PO9-PO12

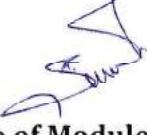
15		2	<b>The students will be able to</b> <ul style="list-style-type: none"><li>• Identify</li><li>• Formulate</li></ul> using first principles of mathematics and engineering sciences.	2 Keywords are mapped. Hence strength is 2
16		3	<b>The students will be able to</b> <ul style="list-style-type: none"><li>• Design solutions for complex engineering problems</li></ul>	1 keyword mapped. Hence strength is 1
17		4	<b>The students will be able to</b> <ul style="list-style-type: none"><li>• Use research-based knowledge for analysis and interpretation of data</li></ul>	1 keyword mapped. Hence strength is 1
18		5	<b>The students will be able to</b> <ul style="list-style-type: none"><li>• Select</li><li>• Apply</li></ul> appropriate Python library tools to complex engineering activities	2 keywords are mapped. Hence strength is 2
19		6	<b>The students will be able to apply reasoning to assess issues:</b> <ul style="list-style-type: none"><li>• Societal</li></ul>	1 keyword mapped. Hence strength is 1
20		7	<b>The students will be able to</b> <ul style="list-style-type: none"><li>• understand the impact of the professional engineering solutions in societal contexts</li></ul>	1 keyword mapped. Hence strength is 1
21		9	<b>The students will be able to work effectively in</b> <ul style="list-style-type: none"><li>• As an Individual</li></ul>	1 keyword mapped. Hence strength is 1
22		10	<b>The students will be able to</b> <ul style="list-style-type: none"><li>• Make effective presentations</li></ul>	1 keyword mapped. Hence strength is 1
23		11	<b>The students will be able to</b> <ul style="list-style-type: none"><li>• Demonstrate knowledge and understanding of engineering</li></ul>	1 Keyword mapped. Hence strength is 1
24		12	<b>The students will be able to engage in knowledge upgradation through</b> <ul style="list-style-type: none"><li>• Independent learning</li></ul>	1 keyword mapped. Hence strength is 1
25		PSO1	<b>The students will be able to understand and apply the fundamentals of ECE in</b> <ul style="list-style-type: none"><li>• Signal Processing</li><li>• Embedded systems</li></ul>	2 Keywords are mapped. Hence strength is 2
26		PSO2	<b>The students will have the ability to</b> <ul style="list-style-type: none"><li>• Design and develop solutions</li><li>• use modern tools for societal concern</li></ul>	2 Keywords are mapped. Hence strength is 2

**COS5: Make use of Network Programming, Web Services and Databases to construct exemplary applications related to Python..**

27	CO5	1	<b>The students will be able to apply the knowledge of</b> <ul style="list-style-type: none"><li>• Mathematics</li><li>• Science,</li><li>• Engineering fundamentals</li><li>• to the solution of complex engineering problems</li></ul>	3 Keywords are mapped. Hence strength is 3
28		2	<b>The students will be able to</b> <ul style="list-style-type: none"><li>• Identify</li><li>• Formulate</li><li>• Analyse</li></ul> using first principles of mathematics and engineering sciences.	3 Keywords are mapped. Hence strength is 3
29		3	<b>The students will be able to design solutions for complex engineering problems with consideration for the</b> <ul style="list-style-type: none"><li>• public health and safety</li><li>• cultural, societal</li><li>• Environmental considerations.</li></ul>	3 Keywords are mapped. Hence strength is 3
30		4	<b>The students will be able to</b> <ul style="list-style-type: none"><li>• Design experiments</li><li>• Use research-based knowledge for analysis and interpretation of data</li></ul>	2 Keywords are mapped. Hence strength is 2
31		5	<b>The students will be able to</b> <ul style="list-style-type: none"><li>• Select</li><li>• Apply</li></ul> appropriate Python library tools to complex engineering activities	2 Keywords are mapped. Hence strength is 2
32		6	<b>The students will be able to apply reasoning to assess issues</b> <ul style="list-style-type: none"><li>• Societal</li></ul>	1 keyword mapped. Hence strength is 1
33		7	<b>The students will be able to</b> <ul style="list-style-type: none"><li>• understand the impact of the professional engineering solutions in societal contexts</li></ul>	1 keyword mapped. Hence strength is 1

34		9	<b>The students will be able to work effectively in</b> • As an Individual	1 keyword mapped. Hence strength is 1
35		10	<b>The students will be able to</b> • Make effective presentations	1 keyword mapped. Hence strength is 1
36		11	<b>The students will be able to</b> • Demonstrate knowledge and understanding of engineering	1 Keyword mapped. Hence strength is 1
37		12	<b>The students will be able to engage in knowledge upgradation through</b> • Independent learning Lifelong learning	2 Keywords are mapped. Hence strength is 2
38		PSO1	<b>The students will be able to understand and apply the fundamentals of ECE in</b> • Signal Processing • Embedded systems • Communication	3 Keywords are mapped. Hence strength is 3
39		PSO2	<b>The students will have the ability to</b> • Design and develop solutions • use modern tools for societal concern	2 Keywords are mapped. Hence strength is 2

  
**Signature of Course In charge**

  
**Signature of Module Coordinator**

  
**Signature of HOD ECE**



# K. S. INSTITUTE OF TECHNOLOGY, BENGALURU-560109

TENTATIVE CALENDAR OF EVENTS: VI EVEN SEMESTER (2022-2023)

SESSION: MARCH TO JULY 2023

Week No.	Month	Day						Days	Activities
		Mon	Tue	Wed	Thu	Fri	Sat		
1	MAR	20*	21	22 H	23	24	25	5	20* - Commencement of VI Sem 22- Ugadi 25-Monday Time Table
2	MAR/APR	27	28	29	30	31	1	6	1-Monday Time Table
3	APR	3H	4	5	6	7H	8DH	3	3-Mahaveera Jayanthi 7-Good Friday
4	APR	10	11	12	13	14H	15 TA	5	14-Dr. B R Ambedkar Jayanthi 15-Monday Time Table
5	APR	17T1	18T1	19T1	20	21	22DH	5	
6	APR	24BV	25* FFB1	26 ASD	27	28	29	6	25* - First Faculty Feed Back 29-Friday Time Table
7	MAY	1H	2	3	4	5	6DH	4	1-May Day
8	MAY	8	9	10	11	12	13	6	13-Friday Time Table
9	MAY	15	16	17	18	19	20DH	5	
10	MAY	22 LT1	23 LT1	24 LT1	25	26 TA	27	6	27-Tuesday Time Table
11	MAY/JUN	29T2	30 T2	31 T2	1	2	3DH	4	
12	JUN	5 BV	6* FFB2	7 ASD	8	9	10	6	6 - Second Faculty Feed Back 10-Wednesday Time Table
13	JUN	12	13	14	15	16	17DH	5	
14	JUN	19	20	21	22	23	24	6	24-Tuesday Time Table
15	JUN/JULY	26 LT2	27 LT2	28 LT2	29H	30	1DH	5	29 - Bakrid
16	JULY	3 T3	4 T3	5 T3	6	7	8	6	8-Wednesday Time Table
17	JULY	10*						1	10* - Last Working day

Total No of Working Days : 84

Total Number of working days ( Excluding holidays and Tests)=69

H	Holiday
BV	Blue Book Verification
T1,T2,T3	Tests 1,2,3
ASD	Attendance & Sessional Display
DH	Declared Holiday
LT1	Lab Test 1
TA	Test attendance

Monday	13
Tuesday	13
Wednesday	12
Thursday	15
Friday	16
Total	69

*Chennai 4  
6/3/23*  
PRINCIPAL  
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BENGALURU - 560 109.



**K. S. INSTITUTE OF TECHNOLOGY, BENGALURU-560109**  
**TENTATIVE CALENDAR OF EVENTS: VIII EVEN SEMESTER (2022-2023)**  
**SESSION: FEB 2023 – MAY 2023**

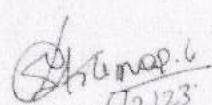
Week No.	Month	Day						Days	Activities
		Mon	Tue	Wed	Thu	Fri	Sat		
1	FEB	13	14	15	16	17	18 DH	5	18- Maha Shivaratri
2	FEB	20	21	22	23	24	25	6	25- Wednesday Time Table
3	FEB/MAR	27	28	1	2 BV	3 ASD	4 DH	5	
4	MAR	6	7	8	9	10	11 TA	6	11 - Tuesday Time Table
5	MAR	13T1	14T1	15	16	17	18 DH	5	
6	MAR	20BV	21* FFB1	22 H	23ASD	24	25	5	21* - First Faculty Feed Back 22- Ugadi 25-Monday Time Table
7	MAR/APR	27	28	29	30	31	1	6	1-Monday Time Table
8	APR	3H	4	5	6	7H	8DH	3	3-Mahaveera Jayanthi 7-Good Friday 8-Friday Time Table
9	APR	10	11	12	13TA	14H	15	5	14-Dr. B R Ambedkar Jayanthi 15-Monday Time Table
10	APR	17T2	18T2	19	20	21	22DH	5	
11	APR	24BV	25* FFB2	26ASD	27	28	29	6	25* - Second Faculty Feed Back 29-Friday Time Table
12	MAY	1H	2	3	4	5	6DH	4	1-May Day
13	MAY	8	9	10	11T3	12T3	13*	6	13-Friday Time Table 13* - Last Working day

Total No of Working Days : 67

Total Number of working days ( Excluding holidays and Tests)=61

H	Holiday
BV	Blue Book
T1,T2,T3	Tests 1,2,3
ASD	Attendance & Sessional Display
DH	Declared Holiday
LT1	Lab Test 1
TA	Test attendance

Monday	12
Tuesday	12
Wednesday	13
Thursday	12
Friday	12
<b>Total</b>	<b>61</b>

  
 6/3/23  
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 BENGALURU - 560 109.

**K.S.INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGG.**  
**LIST OF STUDENTS STUDYING IN VI SEMESTER (A&B SECTIONS)**  
**FOR THE ACADEMIC YEAR 2023 (EVEN SEMESTER)**

SL. NO	USN	NAME OF THE STUDENT	Gender	Date of Birth	EMAIL_ID	Student Phone No	NAME OF THE FATHER	Father Phone No	Mother	Mother Phone No	SEC
1	1KS19EC026	ERAM FATHIMA	Female	14.02.2001	eramfathima17@gmail.com	8618120829	AMEER JAN	9632031105	MISHKATH UNISSA	7829390337	A
2	1KS19EC034	HIMA SWETHA S	Female	24/6/2001	Himaswetha2406@gmail.c om	8431083655	Srinivas reddy	9731375998	Jayalakshmi	9845979327	A
3	1KS20EC001	ABHISHEK J	MALE	3/1/2002	abhg7999@gmail.com	9148909784	JAYAVEEREGOWDA	8546850616	KAMALA	6361110465	A
4	1KS20EC002	Aditi dubey	Female	16-03-2002	Aditidubey2002@gmail.co m	9483670316	Rakesh dubey	9901768702	Prarthana dubey	9916143291	A
5	1KS20EC003	AFFEEFA SHARIEFF	Female	20/10/2002	afeefa.mms@gmail.com	8722100935	MOHAMED MUSHTAQ	-	RAZIA SULTANA	7848078518	A
6	1KS20EC004	Ajay B G	Male	26/02/2002	ajaybg2002@gmail.com	9916973063	B.K Gururaj	9535128057	Srivalli	9663870637	A
7	1KS20EC006	Akash M	Male	03/08/2001	akashtorotto@gmail.com	0911 364 3268	Muniswamy	9538482446	Jyothi	9980491696	A
8	1KS20EC008	B.S. HEMASHREE	Female	24/03/2002	hemashreekadam@gmail.c om	8553847390	B.V. SHASHIDHAR	8762265058	B.S. MADHA VI	9449204361/ 8073662293	A
9	1KS20EC009	BHARATH M	MALE	9/2/2002	bharath3292@gmail.com	6366325889	MALLIKARJUNA G	7090600434	SUJATHA N	7619212525	A
10	1KS20EC010	Bhavitha. B	Female	19-08-2002	bhavithapriya02@gmail.co m	7676182692	Banappa. N	8762182437	Savithram ma. M	8762182437	A
11	1KS20EC011	Bhuvaneshwari k	Female	23/4/2002	bhuvik108@gmail.com	79753 83231	Balakrishna reddy k	9845978879	Sudha	7022608518	A
12	1KS20EC012	Chaitanya k	Male	16/3/2002	reddychaitanya401@gmail. com	7204977937	K Dayananda reddy	9343776218	K Kavitha	6362534647	A
13	1KS20EC013	CHAITHRA K	Female	06-04-2002	chaithrasomayaji2002@gm ail.com	6360927396	Nagaraj Somayaji	9964411457	Jayalakshmi Somayaji	9686610271	A
14	1KS20EC014	C. Sai Srujitha	Female	18/01/2002	saisrujitha18@gmail.com	7815834446	C. Muthyalappa	9000558141	C. Radha	93904 91542	A
15	1KS20EC015	C.Umadevi	Female	20/11/2002	challagundlaumadevi14@g mail.com	6302775314	C Nagaraju	9505737070	C.Sridevi	6303475858	A
16	1KS20EC016	Chaya. S	Female	23/3/2002	chayas2002@gmail.com	8147025259	D. Sundaraiah	9448561585	Umadevi. S	9845198388	A
17	1KS20EC017	Chethan G	Male	30-04-2003	gchethan866@gmail.com	8310415628	Gangadhar	8971800934	Gowri	8971800934	A
18	1KS20EC018	Chethankumar J	Male	20/07/2002	chethankumarachethu9916 @gmail.com	9916319428	Jayanna K	8792319219	Prema H	9916319428	A
19	1KS20EC019	CHETHAN KUMAR T	Male	24/09/2002	chethankumar2420@gmail. com	8971023827	Thippeswamy	-	Savitha H C	7019722049	A
20	1KS20EC020	DARSHAN K	MALE	22/04/2003	darshan2243k@gmail.com	9148379478 9535250529	KESHAVAMURTHY K R	6363852337	SHEELA S	9535250529	A

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21	1KS20EC021	DARSHAN KUMAR S	MALE	6/12/2002	darshu061202@gmail.com	9902618252	SATHYANARAYAN D		N SUMA	8861840262	A
22	1KS20EC023	Dhamini. J	Female	02/07/2002	dhamini0289@gmail.com	9513680207	Jayamnathi s k	7760916277	Chitra	7760916277	A
23	1KS20EC024	Dhruva Kumar S	Male	15/02/2002	dhruvakumar26190@email .com	8073976871	Shivakumar M	9448212050	Geetha M	9886280175	A
24	1KS20EC025	Divya .N	Female	09/05/2002	divyanmurthy09@gmail.co m	8310365659	Narasimha Murthy B	994597171	Rashmi .J	9972629197	A
25	1KS20EC026	Eshwar Biradar	Male	03/01/2003	eshwarbb2003@gmail.com	7588247068	Basavaraj Biradar	9108697635	Sridevi Biradar	9108697635	A
26	1KS20EC027	G BHAVANA PRIYADARSHINI	Female	14/10/2002	bhavanagorthi@gmail.com	8296196955	G JAYA PRAKASH	9481269256	G SREEDEVI	8073709003	A
27	1KS20EC028	Gagan.H.C	Male	01/06/2002	gagan888.hc@gmail.com	6364269333	Chandrashekhar.H. C	9845440151	G.Latha	9880883234	A
28	1KS20EC029	Gagana B S	Female	18-09-2002	gagana8904604388@gmail .com	6360024748	Shivaramu	6362954628	Rathinamma	8904604388	A
29	1KS20EC030	Gandhamani C M	Female	07/04/2002	cmgandhamani@gmail.com	9741398268	Mohanraju C	9448233568	Jayanthi C	8892243982	A
30	1KS20EC031	Gomitha R C	Female	02-06-2002	rcgomitha@gmail.com	8618246907	Chowdareddy R N	8762134121	R V Vani	7892682264	A
31	1KS20EC032	Harini k	Female	24-03-2002	kharini810@gmail.com	9900704653	Krishna Murthy	7259806961	Latha	7259806961	A
32	1KS20EC033	Harshith gowda AR	Male	04/09/2002	harshithgowda04@gmail.c om	8123266819	Revanna M	9008273087	Amrutha P	8197111238	A
33	1KS20EC034	Harshitha.B.L	Female	15/6/2002	harshithabl15@gmail.com	7892192846	B.A. Lakshmisha	9845757201	K.V.chandr akala	9740154601	A
34	1KS20EC035	Harshitha.J	Female	23-09-2002	gowdaharshithaj@gmail.co m	9113684507	Jayaram	9980381766	Sukanya	9113684507	A
35	1KS20EC036	HARSHITHA N	Female	22/12/2002	harshithan392@gmail.com	8884395624	R NANJUNDA	8884951994	LAKSHMI DEVI	9448617364	A
36	1KS20EC037	Inchara. P	Female	24-01-2002	tejupc182@gmail.com	6361694403	Poorna chandra thejaswi	9738746898	Veena. B	81055444866	A
37	1KS20EC038	Chaithanya krishna.J	Male	30/04/2003	chaithanyajampula1@gmail .com	7780665993	Ramamurthy.J	7780665993	Sukanya.J	9705377583	A
38	1KS20EC039	Jamuna s g	Female	16-02-2002	Jamunagsy123@gmail.com	9353868269	Gangadharalaih	8123389095	Susheela	7259836059	A
39	1KS20EC040	Janhavi r	Female	13-02-2003	Janvirajjanviraj042@gmail .com	8073864130	Rajanna N	8073864130	Mangala A S	6366086700	A
40	1KS20EC041	JAYANTH. H	Male	09/02/2002	jayanth.h6174@gmail.com	9632619829	HANUMESH. M	9880767316	LAKSHMIDE VI	9141073697	A
41	1KS20EC042	K Jeevitha	Female	21-08-2002	jeevitha020821@gmail.co m	7899532686	Krishna Murthy V	9740682084	Jyothi K N	7795122078	A
42	1KS20EC043	K.M.Amshuman t	Male	24.04.2002	amshu.cr7@gmail.com	9742095512	K.Mahantesh	9880280939	Nanda.J	9900656170	A
43	1KS20EC045	Kavana.G.S	Female	13/06/2002	kavanags10@gmail.com	9148137238	Shivakumar.G.K	7829221728	Kalavathi.M .B ..	9611439411	A

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44	1KS20EC046	Kavya S M	Female	20/02/2002	kavyasm12345@gmail.com	7795924125	S R MURALI KRISHNA	9019615633	VARALAKS HMI B	9844856115	A
45	1KS20FC047	Keerthana RS	Female	16/1/2003	keerthanabspvg2003@gma il.com	8431466578	Srinivasa	9972262282	Anitha	9980070610	A
46	1KS20EC048	Kiran Dev D	Male	24/11/2002	devkirid8049@gmail.com	7411158049	Devaraj S	9845548049	Kokila G	9341448049	A
47	1KS20EC049	KIRAN V NARAYAN	Male	9/7/2002	kirannarayani0@gmail.com	6366955248	VIJAY KUMAR B N	9945944229	PADMINI B V	9945337238	A
48	1KS20EC050	KODIDELA. PRATHIMA	Female	05-01-2002	kodidelaprathima2002@gm ail.com	9392399402	K. Sudharsan	7989193663	K. Adilakshmi	8897279908	A
49	1KS20EC051	KUMAR K G	Male	02/09/2002	ganeshkumar9035@gmail. com	9071942191	GANESH K A	9035415059	SHEELA K S	8217863402	A
50	1KS20EC052	Kusuma VR	Female	27-10-2002	kusumavr2710@gmail.com	8792008538	YR Ramesh	9945357476	Shashikala KN	8861356613	A
51	1KS20EC053	M.Archana	Female	18/12/2002	archanamohan8073@gmail. .com	7619661372	P.Mohan	9480155110	P.Latha	9739885584	A
52	1KS20EC054	MADIHA	Female	23/04/2002	mazharmadiha/86@gmail. .com	9845357377	Mazhar-Ul-Huq	9980778851	Rizwana Begum	8660026800	A
53	1KS20EC055	MAHESH BIRADAR	MALE	5/10/2002	maheshbiradar8762@gmail. .com	8088718524	Shivaputra Biradar	8762779748	Mahadevi	9606619067	A
54	1KS20EC056	MANASWINI KM	Female	15/07/2002	manaswigowda@gmail.co m	9148691462	MAHESH MS	9008739026	CHANDRAK ALA. TR	9008739026	A
55	1KS20EC057	Meghashree.M	Female	23-04-2002	roopamegha2002@gmail.c om	9206532206	Manjunatha B N	9206532206	Roopa M V	9742171972	A
56	1KS20EC058	MOHAN KRISHNA K	Male	09/03/2001	mohankrishnak931@gmail. .com	9380891045	KRISHNA MURTHY D	9686225657	LAKSHMI DEVI T	7892926138	A
57	1KS20EC059	N.shreya	Female	25-11-2002	Shreyasrivatsa25@gmail.c om	8147128278	S.Nagaraja	9980028278	S .janhavi	9900411278	B
58	1KS20EC060	NALLANI GOWTHAMI	Female	6/6/2002	nallanigowthami2002@gm ail.com	7032681854	n SRINIVASULU	9959669329	PUSHPAVAT HI	6303344071	B
59	1KS20EC061	NEHA CR	Female	01/01/2003	ramegowdam1971@gmail. .com	9108573852	Ramegowda	8892596410	Sheela	7795116382	B
60	1KS20EC062	NEHA NAGARAJ AIRANI	Female	11/5/2002	airani.neha11@gmail.com	9886248430	Nagraj S Airani	9535685226	Madhuri N Airani	9449184581	B
61	1KS20FC063	VASANTH Kumar	Male	16-04-2002	vasanthkumar44881@gmai l.com	7483506301	P. Balakrishnareddy	7483506301	P. Revathi	9844127112	B
62	1KS20EC064	PAVAN.C	MALE	15/7/2002	pavanreddy6896@gamil.co m	8317411141	C. SHIVA REDDY	9740367773	C ARUNA	9740798050	B
63	1KS20EC065	Pavani TS	Female	20/03/2003	talluripavani76@gmail.com	7619183036	T V Sathish Babu	9972693036	Shobha Rani T	9591713501	B
64	1KS20EC066	Pradhyumna S Kashyap	Male	27-02-2002	pradhyumnakashyap7842 @gmail.com	9740736084	Srinath C	9980412184	K N Malini	8861476084	B
65	1ks20ec067	Praveen D B	Male	17-07-2002	bpraveen.1707@gmail.com	8618964201	Basavaraju D P	-	Sujatha C	9886926255	B
66	1KS20EC068	Prema G	Female	13/05/2003	gopalsushéelreddy@gmail. .com	8951273603	Gopal reddy	9611329572	Susheela	8971472513	B

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67	1KS20EC069	PRIYANKA.H C	Female	15/7/2002	priyanka.hc792@gmail.co m	9663826792	CHANDRA KANTH H.S	9902296912	PAVITHRA K R	8861758718	B
68	1KS20EC070	PRIYANKA K	Female	1/2/2002	kpriyanka93033@gmail.co m	6362989867	Krishna K J	9535047009	Rathnamma	7019023020	B
69	1KS20EC071	Priyanka.M	Female	07-05-2002	priyankamathi07@gmail.co m	8217659122	R. Mariyappan	9448784807	M.Mathisely i	7975224734	B
70	1KS20EC072	Pushpa DT	Female	01-04-2002	pushpadt65@gmail.com	7483778566	Thirumma reddy DA	9535135687	Sridevamm a KR	9964160640	B
71	1KS20EC073	RAHUL KRISHNAN V	Male	12/4/2001	rkv122001@gmail.com	9480123426	VINOD KUMAR K	9449444403	BHARATHI G H	9449444520	B
72	1KS20EC074	RAHUL R	MALE	8/9/2001	rahulrhmnu@gmail.com	8431011477	RAMJI PANDITH	9845904555	SUMA	9535510733	B
73	1KS20EC075	RAJATH K ACHAR	MALE	14/8/2002	rajathkachar143@gmail.co m	9380682309	KRISHNA MURTHY K G	9740123471	VASANTHA K R	9448959949	B
74	1KS20EC076	Rakshith NM	Male	17/01/2002	nmrakshith049@gmail.com	09632115351	Maregowda	8296142734	Bhagya	8296142734	B
75	1KS20EC077	RAKSHITH.R	Male	05/01/2002	r49862303@gmail.com	7892065979	RAJASHEKHAR H.S	9980601937	SAROJA. R	7892065979	B
76	1KS20EC078	Rakshitha A	Female	31-12-2002	rakshithaanthony1@gmail. com	8147257648	Anthony Raj C	9880036569	Vandhana Mary	8073485262	B
77	1KS20EC079	RAMESHWAR	MALE	22/7/2001	makrerameshwari6@gmail. com	7411390961	UMAKANTH	9972331377	SATHYABH AMA		B
78	1KS20EC080	Ramya T	Female	1/12/2002	ramyatramyati3@gmail.co m	6363683042	Thulasi rama. C	9886672905	Chinnapapa	7259443133	B
79	1KS20EC082	Rohit A.k	Male	24/09/2002	rohitkanni24@gmail.com	9663921545	Ashok	9880418356	Nagamma	9110463042	B
80	1KS20EC083	S Arun Kumar	Male	13/01/2003	rahularunkumar5@gmail.c om	9686776425	SATHYA MURTHY A	9108820145	Bharathi S	9480515998	B
81	1KS20EC084	Sachin NM	Male	13/07/2002	sachinmnagol@gmail.com	8431949810	Manjunath N	9972077572	Manjula	9742958936	B
82	1KS20EC085	SADHANA.SRINI VAS	Female	06/05/2002	sadhana.srinivas6@gmail.c om	6361916229	SRINIVAS.B.S	9108587382	UMA.SRINI VAS	9108287469	B
83	1KS20EC087	Sandeep Y H	Male	1-7-2002	deepuyhdeepuyh@gmail.co m	9741435215	Hanumantharayappa Y N	9901889154	Umadevi R	9880711052	B
84	1KS20EC089	Sanjana.G	Female	28-08-2002	sanjana.gurunaths@gmail. com	9686474373	Gurunath.S	9686474373	Priyadarshi ni,G	8277201905	B
85	1KS20EC091	Sanjana T Gadikar	Female	14-09-2002	sanjanatgadikar@gmail.co m	7411745642	Tippanna B gadikar	9900137102	Rajashri T Gadikar	7411724316	B
86	1KS20EC092	Shakthi Anbazhagan M	Male	25/09/2002	anbumuniyappa@gmail.co m	6363195088	Muniyappa K	9980122908	Selvi C M	9844201698	B
87	1KS20EC093	Sharath M	Male	18/09/2002	Sharathm5684@gmail.com	8050032261	Mahadeva S	9480075656	Leelavathi B M	9900237258	B
88	1KS20EC094	SHASHANK S	Male	4/5/2002	shashanksiddaraj2002@gm ail.com	8867116224	Siddaraju K	9535220016	Vasantha	7975633792	B
89	1KS20EC095	SHIVAREDDY B A	MALE	10/1/2001	shivareddyba567@gmail.co m	9686526103	AMARANATH	9731055616	SUJATHA	7349134651	B

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90	1KS20EC096	Shreya H Padmanabha	Female	01/06/2002	shreyah532@gmail.com	7676869258	PADMANABHAIAH K	9902308548	HEMALATHA K R	9743042590	B
91	1KS20EC097	Shreyas M S	Male	21/08/2002	shrems08@gmail.com	8050289057	Shankarappa M R	9845447704	Sowbhagya G S	9900379104	B
92	1KS20EC098	Shreyas p s rao	Male	27/09/2002	sshreyas578@gmail.com	+916364557803	Sudhakar m p	9343835454	Suma b s	9341229890	B
93	1KS20EC099	SHWETA DEEPAK K	Female	20/10/2002	shwetakunichi20@gmail.com	9482046205	DEEPAK K S	984527786	VANI M	9945218760	B
94	1KS20EC101	SONIKA.R	Female	11/12/2002	Sonikajk1@gmail.com	9980733590	Rajesh.K	9916897160	Sumathi.T	9986849682	B
95	1KS20EC102	SUMANA N	Female	20/6/2002	sumanarayan20@gmail.com	8884199651	K Narayana	9663342083	Leelavathi M	9738722600	B
96	1KS20EC103	SUMUKHA.S	Male	04/01/2003	sumukha4012003@gmail.com	09380204638	SUBRAMANYA.JS	9741191725	USHA.H	9591248708	B
97	1KS20EC104	SURAKSHA.N	Female	06-05-2002	suraksha.nagaraj@gmail.com	9108675849	NAGARAJ.M	9845809413	SHIVARATHNA	9632459970	B
98	1KS20EC105	Tarun Prasanna	Male	24/05/2002	tarunp2405@gmail.com	08660233065	S Prasanna Kumar	8805236881	Govardhini B S	7722007910	B
99	1KS20EC106	TEJAS N REDDY	Male	18/07/2002	reddytejas18@gmail.com	9606559319	B narayanaswamy	9880178585	B bhuvanavat	6364743051	B
100	1KS20EC107	T.GIRISHCHOWDARY	Male	13/08/2003	thummalagirishchowdary2003@gmail.com	6304887699	T.SRINIVASUJI U	9502027945	T.SUDHA	6304887699	B
101	1KS20EC108	Uday C H	Male	16/04/2002	udaych810@gmail.com	8660434249	Nagesh C H	9900138435	Sharada	9513820966	B
102	1KS20EC109	UJJWAL NAIDU	Male	13-05 -2001	kandraujjwalnaidu16@gmail.com	9353513629	K H NARAYANA REDDY	9663574352	LAKSHMI DEVI	7259488464	B
103	1KS20EC110	VAISHNAVI A	Female	26/12/2001	vaishnavibharadwaj1817@gmail.com	7975440553	Ajay H A	8217586332	Suma A	9886957673	B
104	1KS20EC111	Vaishnavi.V.H	Female	1/09/2002	vaishnavivadagoor@gmail.com	8660383450	Harish.V.S	9663878282	GayaUiri.K. R	8904275341	B
105	1KS20EC112	N Varsha	Female	16-04-2002	varshanachar@gmail.com	9740644194	R S Natashekara	9980465195	Mangala Madhumath	9449792744	B
106	1KS20EC113	Vijayalakshmi K	Female	05/04/2002	vijayalakshmi025@gmail.com	7349262315	Kumaraswamy R	9448169331	Annapurna N S	9481037802	B
107	1KS20EC114	VINAY S P	Male	06-05-2002	Vinaysp6522@gmail.com	8904305025	S M PUTTEGOWDA	9972225344	BHAGYA JYOTHI	6361875036	B
108	1KS20EC115	VINAY SAGAR V ALUR	Male	17-01-2003	segarvinay1703@gmail.com	8150045445	VILAS V ALUR	9980626767	PUSHPA G DESHPAND	9620350096	B
109	1KS20EC116	VINEETH M S	Male	21/11/2002	Msvineeth70@gmail.com	+917975657991	Somashekar M N	9448798847	Mamatha K S	9008006551	B
110	1KS20EC117	YASHILAA.S	Female	28/05/2002	yashilaa028@gmail.com	7975689781	S N SHANKAR RAO	9845545398	MALATHI R N	9980741101	B
111	1KS20EC118	YASHWANTH Y	Male	07/11/2002	yashwanthshetty281@gmail.com	9535056009	Yogesh T	6361313577	Jayalakshmi	8073107253	B
112	1KS21EC401	SUDEEP V	Male	3/3/2003	sudeepv452@gmail.com	8088665752	VENKATESH REDDY	8453040792	SRIVDEVI	6362032203	B

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90	1KS20EC096	Shreya H Padmanabha	Female	01/06/2002	shreyah532@gmail.com	7676869258	PADMANABHAIAH K	9902308548	HEMALATHA K R	9743042590	B
91	1KS20EC097	Shreyas M S	Male	21/08/2002	shrems08@gmail.com	8050289057	Shankarappa M R	9845447704	Sowbhagya G S	9900379104	B
92	1KS20EC098	Shreyas p s rao	Male	27/09/2002	sshreyas578@gmail.com	+916364557803	Sudhakar m p	9343835454	Suma b s	9341229890	B
93	1KS20EC099	SHWETA DEEPAK K	Female	20/10/2002	shwetakunichi20@gmail.com	9482046205	DEEPAK K S	984527786	VANI M	9945218760	B
94	1KS20EC101	SONIKA.R	Female	11/12/2002	Sonikajk1@gmail.com	9980733590	Rajesh.K	9916897160	Sumathi.T	9986849682	B
95	1KS20EC102	SUMANA N	Female	20/6/2002	sumanareyan20@gmail.com	8884199651	K Narayana	9663342083	Leelavathi M	9738722600	B
96	1KS20EC103	SUMUKHA.S	Male	04/01/2003	sumukha4012003@gmail.com	09380204638	SUBRAMANYA.JS	9741191725	USHA.H	9591248708	B
97	1KS20EC104	SURAKSHA.N	Female	06-05-2002	suraksha.nagaraj@gmail.com	9108675849	NAGARAJ.M	9845809413	SHIVARATHNA	9632459970	B
98	1KS20EC105	Tarun Prasanna	Male	24/05/2002	tarunp2405@gmail.com	08660233065	S Prasanna Kumar	8805236881	Govardhini B S	7722007910	B
99	1KS20EC106	TEJAS N REDDY	Male	18/07/2002	reddytejas18@gmail.com	9606559319	B narayanaswamy	9880178585	B bhuvanavat	6364743051	B
100	1KS20EC107	T.GIRISHCHOWDARY	Male	13/08/2003	thummalagirishchowdary2003@gmail.com	6304887699	T.SRINIVASULU	9502027945	T.SUDHA	6304887699	B
101	1KS20EC108	Uday C H	Male	16/04/2002	udaych810@gmail.com	8660434249	Nagesh C H	9900138435	Sharada	9513820966	B
102	1KS20EC109	UJJWAL NAIDU	Male	13-05 -2001	kandraujjwelnaidu16@gmail.com	9353513629	K H NARAYANA REDDY	9663574352	LAKSHMI DEVI	7259488464	B
103	1KS20EC110	VAISHNAVI A	Female	26/12/2001	vaishnavibharadwaj1817@gmail.com	7975440553	Ajay H A	8217586332	Suma A	9886957673	B
104	1KS20EC111	Vaishnavi.V.H	Female	1/09/2002	vaishnavivadagoor@gmail.com	8660383450	Harish.V.S	9663878282	GayaUiri.K. R	8904275341	B
105	1KS20EC112	N Varsha	Female	16-04-2002	varshanachar@gmail.com	9740644194	R S Natashekara	9980465195	Mangala Madhumath	9449792744	B
106	1KS20EC113	Vijayalakshmi K	Female	05/04/2002	vijayalakshmi025@gmail.com	7349262315	Kumaraswamy R	9448169331	Annapurna N S	9481037802	B
107	1KS20EC114	VINAY S P	Male	06-05-2002	Vinaysp6522@gmail.com	8904305025	S M PUTTEGOWDA	9972225344	BHAGYA JYOTHI	6361875036	B
108	1KS20EC115	VINAY SAGAR V ALUR	Male	17-01-2003	segarvinay1703@gmail.com	8150045445	VILAS V ALUR	9980626767	PUSHPA G DESHPAND	9620350096	B
109	1KS20EC116	VINEETH M S	Male	21/11/2002	Msvineeth70@gmail.com	+917975657991	Somashekar M N	9448798847	Mamatha K S	9008006551	B
110	1KS20EC117	YASHILAA.S	Female	28/05/2002	yashilaa028@gmail.com	7975689781	S N SHANKAR RAO	9845545398	MALATHI R N	9980741101	B
111	1KS20EC118	YASHWANTH Y	Male	07/11/2002	yashwanthshetty281@gmail.com	9535056009	Yogesh T	6361313577	Jayalakshmi	8073107253	B
112	1KS21EC401	SUDEEP V	Male	3/3/2003	sudeepv452@gmail.com	8088665752	VENKATESH REDDY	8453040792	SRIVDEVI	6362032203	B



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE -109**  
**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**  
**INDIVIDUAL TIME TABLE FOR THE YEAR - 2023 (EVEN SEMESTER)**

W.E.F. : 20/3/2023

NAME OF THE FACULTY : Dr. SUREKHA B

DESIGNATION: PROFESSOR

PERIOD	1	2	10.20 AM 10.35 AM	3	4	12.25 PM 1.15 PM	5	6	7
TIME	8.30 AM 9.25 AM	9.25 AM 10.20 AM		10.35 AM 11.30 AM	11.30 AM 12.25 PM		1.15 PM 2.10 PM	2.10 PM 3.05 PM	3.05 PM 4.00 PM
MON	PYAP (18EC646) -B					L	PYAP (18EC646) -A		
TUE	PYAP (18EC646) -B		T E A	PYAP (18EC646) -A		U			
WED			B R E A K	PYAP (18EC646) -B		C H			
THU	PYAP (18EC646) -A				PYAP (18EC646) -B	B R E A K			
FRI		PYAP (18EC646) -A							

	Subject Code	Subject Name	Sem	Section	Work Load
Subject 1	18EC646	Python Application Programming (Professional Elective-1)	VI	A&B	8
Mini project	18ECMP68	Mini-Project (Guide )	VI		2
Project	18ECP83	Project Work Phase -2 - (Guide )	VIII		2
Internship	18ECI85	Internship (Guide )	VIII		2

ADDITIONAL WORK: MENTORING AND OTHERS

TOTAL LOAD=14 Hrs/Week

V.L.S.  
Time Table Co-ordinator

HEAD OF THE DEPARTMENT  
 Dept. of Electronics & Communication Engg  
 K.S. Institute of Technology  
 Bengaluru - 560 109

*[Signature]*  
 Principal  
**K.S. INSTITUTE OF TECHNOLOGY**  
**BENGALURU - 560 109.**



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE -109**  
**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**  
**VI SEMESTER TIME TABLE FOR THE YEAR 2023 (EVEN SEMESTER)**

W.E.F. : 20/3/2023

SEC : 'A'

PERIOD	1	2	3	4	5	6	7
TIME DAY	8.30 AM 9.25 AM	9.25 AM 10.20 AM	10.20 AM 10.35 AM	10.35 AM 11.30 AM	11.30 AM 12.25 PM	12.25 PM 1.15 PM	1.15 PM 2.10 PM
MON	ES (18EC62)	MWA (18EC63)	T E A	DC (18EC61)	DSA (18CS652) / SCM(18ME653)	PYAP (18EC646)	T T
TUE	DC (18EC61)	DSA (18CS652) / SCM(18ME653)		PYAP (18EC646)	MWA (18EC63)		ES LAB (18ECL66) - A3 / COM LAB (18ECL67)-A1
WED		ES LAB (18ECL66) - A1/ COM LAB (18ECL67)-A2			DSA (18CS652) / SCM(18ME653)	ES (18EC62)	DC (18EC61)
THU	PYAP (18EC646)	ES (18EC62)	B R E A K	MWA (18EC63)	DC (18EC61)		ES LAB (18ECL66)-A2 / COM LAB (18ECL67)-A3
FRI	DSA (18CS652) / SCM(18ME653)	PYAP (18EC646)		MWA (18EC63)	ES (18EC62)		Mini-Project (18ECMP68)

Sub-Code	Subject Name	Faculty Name
18EC61	Digital Communication	Dr. Rekha N
18EC62	Embedded Systems	Dr. Sudarshan B
18EC63	Microwave and Antennas	Dr. Dinesh Kumar D S
18EC646	Python Application Programming (Professional Elective-1)	Dr. Surekha B
18CS652	Introduction to Data Structures and Algorithms (Open Elective Elective-A)	Dr. Vijaya Lakshmi M
18ME653	Supply Chain Management (Open Elective Elective-A)	Mrs . Bhargavi Ananth
18ECL66	Embedded Systems Laboratory	Dr. Sudarshan B -A2, A3, Dr. Dinesh Kumar D S -A1,A2,A3 Mr. Praveen A - A1
18ECL67	Communication Laboratory	Dr. Rekha N - A1,A3, Dr. Pooja S, A1, A2, A3 Mrs. Bhargavi Ananth- A2
18ECMP68	Mini-Project	Dr. Chanda V Reddy , Mrs. Vishalini Divakar
	Internship	

V. S. H.  
Time Table Co-ordinator

HEAD OF THE DEPARTMENT  
 Dept. of Electronics & Communication Engg  
 K.S. Institute of Technology  
 Bengaluru - 560 109

*Chandu*  
 Principal  
 K.S. INSTITUTE OF TECHNOLOGY  
 BENGALURU - 560 109.



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE -109**  
**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**  
**VI SEMESTER TIME TABLE FOR THE YEAR 2023 (EVEN SEMESTER)**

W.E.F. : 20/3/2023

SEC : 'B'

CLASS TEACHER : Mr. Praveen A

CLASS ROOM : OB LH 205

PERIOD	1	2	3	4	5	6	7
TIME DAY	8.30 AM 9.25 AM	9.25 AM 10.20 AM	10.20 AM 10.35 AM	10.35 AM 11.30 AM	11.30 AM 12.25 PM	12.25 PM 1.15 PM	3.05 PM 4.00 PM
MON	PYAP (18EC646)	ES (18EC62)	MWA (18EC63)	DSA (18CS652) / SCM(18ME653)	L	ES LAB (18ECL66) -B3 / COM LAB (18ECL67) -B1	
TUE	PYAP (18EC646)	DSA (18CS652) / SCM(18ME653)	DC (18EC61)	~ ES (18EC62)	U	Mini-Project (18ECMP68)	
WED	MWA (18EC63)	DC (18EC61)	PYAP (18EC646)	DSA (18CS652) / SCM(18ME653)	N	ES LAB (18ECL66) - B1 / COM LAB (18ECL67) - B2	
THU	ES (18EC62)	DC (18EC61)	MWA (18EC63)	PYAP (18EC646)	C	MWA (18EC63) - T	T
FRI	DSA (18CS652) / SCM(18ME653)	MWA (18EC63)	ES (18EC62)	DC (18EC61)	H	ES LAB (18ECL66) - B2 / COM LAB (18ECL67) -B3	T

Sub-Code	Subject Name	Faculty Name
18EC61	Digital Communication	Dr. Rekha N
18EC62	Embedded Systems	Mr. Praveen A
18EC63	Microwave and Antennas	Dr. Chanda V Reddy
18EC646	Python Application Programming (Professional Elective-I)	Dr. Surekha B
18CS652	Introduction to Data Structures and Algorithms (Open Elective Elective-A)	Dr. Vijaya Lakshmi M
18ME653	Supply Chain Management (Open Elective Elective-A)	Mrs . Bhargavi Ananth
18ECL66	Embedded Systems Laboratory	Dr. Sudarshan B -B3, Dr. Dinesh Kumar D S, - B1,B2, B3 Mr. Praveen A -B1,R2
18ECL67	Communication Laboratory	Dr. Rekha N-B1, Dr. Pooja S - B1, B2,B3 Mrs. Bhargavi Ananth - B2, B3
18ECMP68	Mini-Project	Dr. Chanda V Reddy , Mrs. Vishalini Divakar
	Internship	

V.S.1  
Time Table Co-ordinator

HEAD OF THE DEPARTMENT  
PROF.  
 Dept. of Electronics & Communication Engg  
 K.S. Institute of Technology  
 Bengaluru - 560 109

K.S. INSTITUTE OF TECHNOLOGY  
 BENGALURU - 560 109.

PRINCIPAL —  
*R.Kumar*

## **SYLLABUS**

### **PYTHON APPLICATION PROGRAMMING**

**As per Choice Based Credit System (CBCS) and Outcome Based Education (OBE)**

<b>Course Code</b>	<b>18EC646</b>	<b>CIE Marks</b>	<b>40</b>
<b>Number of Lecture Hours/Week</b>	<b>04</b>	<b>SEE Marks</b>	<b>60</b>
<b>Total Number of Lecture Hours</b>	<b>40 (8 Hours / Module)</b>	<b>Exam Hours</b>	<b>03</b>

#### **CREDITS – 03**

**Course objectives:** This course will enable students to:

- Learn Syntax and Semantics and create Functions in Python. Handle Strings and Files in Python.
- Understand Lists, Dictionaries and Regular expressions in Python.
- Implement Object Oriented Programming concepts in Python
- Build Web Services, Network and Database Programs in Python.

#### **Module-1**

Why should you learn to write programs, Variables, expressions and statements, Conditional execution, Functions

#### **Module-2**

Iteration, Strings, Files

#### **Module-3**

Lists, Dictionaries, Tuples, Regular Expressions

#### **Module-4**

Classes and objects, Classes and functions, Classes and methods

#### **Module-5**

Networked programs, Using Web Services, Using databases and SQL

**Course Outcomes:** After studying this course, students will be able to:

1. Examine Python syntax and semantics and be fluent in the use of Python flow control and functions
2. Demonstrate proficiency in handling Strings and File Systems.
3. Create, run and manipulate Python Programs using core data structures like Lists, Dictionaries and Regular Expressions.
4. Interpret the concepts of Object-Oriented Programming as used in Python.
5. Implement exemplary applications related to Network Programming, Web Services and Databases in Python.

#### **Textbooks:**

1. Charles R. Sseverance, "Python for Everybody: Exploring Data Using Python 3", 1 Edition, Create Space Independent Publishing Platform, 2016 (Chapters 1 — 13, 15).
2. Allen B. Doey, "Think Python: How to Think Like a Computer Scientist", 2n Edition, Green Tea Press, 2015 (Chapters 15,16,17)

#### **Reference Books:**

1. Mark Lutz, "Programming Python", 4th Edition, O'Reilly Media, 2011.ISBN-13:978-9350232873.
2. Wesley J Chun, "Core Python Applications Programming", 3rd Edition, Pearson Education India, 2015. ISBN—13: 978—9332555365.
3. Reema Thareja, "Python Programming using problem solving approach", Oxford university press, 2017

#### **Assignments:**

1. Written Assignment
2. Written Assignment
3. Mini Projects



**K. S. INSTITUTE OF TECHNOLOGY BANGALORE**  
**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**  
**LESSON PLAN 2022-23 EVEN SEMESTER**

**COURSE INCHARGE** : Dr. Surekha Borra  
**COURSE CODE/TITLE** : 18EC646/ Python Application Programming  
**YEAR/ SEMESTER/SECTION** : 4/6 / A  
**BRANCH** : ECE

Sl. No.	Topic to be delivered	Mode of Delivery	Teaching Aid	No. of Periods	Cumulative No. of Periods	Proposed Date
<b>Module 1: INTRODUCTION</b>						
1	Introduction: Why should you learn to write programs? Computer hardware architecture	L+D	BB+PPT	1	1	20/3/23
2	Terminology: Interpreter and compiler, programs, building blocks, Debugging	L+D	BB+PPT	1	2	21/3/23
3	Variables, expressions, and statements	L+ D	BB+PPT	1	3	23/3/23
4	Variables, expressions, and statements	L+D	BB+PPT		4	24/3/23
5	Variables, expressions, and statements: Exercises	L+D	BB+PPT	1	5	25/3/23
6	Variables, expressions, and statements: Exercises	L+D	BB+PPT	1	6	27/3/23
7	Conditional execution	L+ D	BB+PPT	1	7	28/3/23
8	Conditional execution: Exercises	L+D	BB+PPT	1	8	30/3/23
9	Functions	L+D	BB+PPT	1	9	31/3/23
10	Functions: Exercises	L+D	BB+PPT	1	10	1/4/23
<b>Module 2: ITERATIONS</b>						
11	Iteration	L+D	BB+PPT	1	11	4/4/23
12	Iteration: Exercises	L+ D	BB+PPT	1	12	6/4/23
13	Strings	L+D	BB+PPT	1	13	10/4/23
14	Strings: Exercises	L+D	BB+PPT	1	14	11/4/23
15	Strings: Exercises	L+D	BB+PPT	1	15	13/4/23
16	Files	L+D	BB+PPT	1	16	15/4/23

17	IA-1				17	18/4/23
18	Files: Exercises	L+D	BB+PPT	1	18	20/4/23
19	Files; Exercises			1	19	21/4/23
<b>Module 3: LISTS</b>						
20	Lists	L+D	BB+PPT	1	20	24/4/23
21	Lists: Exercises	L+D	BB+PPT	1	21	25/4/23
22	Lists: Exercises	L+D	BB+PPT	1	22	27/4/23
23	Dictionaries	L+D	BB+PPT	1	23	28/4/23
24	Dictionaries: Exercises	L+D	BB+PPT	1	24	29/4/23
25	Dictionaries: Exercises	L+D	BB+PPT	1	25	2/5/23
26	Tuples	L+D	BB+PPT	1	26	4/5/23
27	Tuples: Exercises	L+D	BB+PPT	1	27	5/5/23
28	Regular Expressions	L+D	BB+PPT	1	28	8/5/23
29	Regular Expressions: Exercises	L+D	BB+PPT	1	29	9/5/23
<b>Module 4: CLASSES AND OBJECTS</b>						
30	Classes and objects	L+D	BB+PPT	1	30	11/5/23
31	Classes and objects	L+D	BB+PPT	1	31	12/5/23
32	Classes and objects: Exercises	L+D	BB+PPT	1	32	13/5/23
33	Classes and Functions	L+D	BB+PPT	1	33	15/5/23
34	Classes and Functions: Exercises	L+D	BB+PPT	1	34	16/5/23
35	Classes and Methods	L+D	BB+PPT	1	35	18/5/23
36	Classes and Methods: Exercises	L+D	BB+PPT	1	36	19/5/23
<b>Module 5: NETWORKED PROGRAMS</b>						
37	Networked programs	L+D	BB+PPT	1	37	22/5/23
38	Networked Programs: Exercises	L+D	BB+PPT	1	38	23/5/23
39	Using Web Services	L+D	BB+PPT	1	39	25/5/23
40	Using Web Services: Exercises	L+D	BB+PPT	1	40	26/5/23
41	Using Web Services: Exercises	L+D	BB+PPT	1	41	27/5/23
42	IA-2				42	30/5/23
43	Using databases Exercises	L+D	BB+PPT	1	43	1/6/23
44	Using databases Exercises	L+D	BB+PPT	1	44	2/6/23
45	SQL	L+D	BB+PPT	1	45	5/6/23
46	SQL Exercises	L+D	BB+PPT	1	46	6/6/23
47	Additional Exercises	L+D	BB+PPT	1	47	8/6/23

48	Additional Exercises	L+D	BB+PPT	1	48	9/6/23
49	Additional Exercises	L+D	BB+PPT	1	49	12/6/23
50	Additional Exercises	L+D	BB+PPT	1	50	13/6/23
51	Additional Exercises	L+D	BB+PPT	1	51	15/6/23
52	Additional Exercises	L+D	BB+PPT	1	52	16/6/23
53	Additional Exercises	L+D	BB+PPT	1	53	19/6/23
54	Mini-Project Presentations	L+D	BB+PPT	1	54	20/6/23
55	Mini-Project Presentations	L+D	BB+PPT	1	55	22/6/23
56	Mini-Project Presentations	L+D	BB+PPT	1	56	23/6/23
57	Mini-Project Presentations	L+D	BB+PPT	1	57	24/6/23
58	Mini-Project Presentations	L+D	BB+PPT	1	58	26/6/23
59	Mini-Project Presentations	L+D	BB+PPT	1	59	27/6/23
60	Mini-Project Presentations	L+D	BB+PPT	1	60	30/6/23
61	IA-3				61	4/7/23
62	Mini-Project Presentations	L+D	BB+PPT	1	62	6/7/23
63	Mini-Project Presentations	L+D	BB+PPT	1	63	7/7/23
64	Mini-Project Presentations	L+D	BB+PPT	1	64	10/7/23

**Textbooks:**

- Charles R. Seeverance, "Python for Everybody: Exploring Data Using Python 3", 1 Edition, Create Space Independent Publishing Platform, 2016 (Chapters 1 — 13, 15).
- Allen B. Downey, "Think Python: How to Think Like a Computer Scientist", 2nd Edition, Green Tea Press, 2015 (Chapters 15,16,17)

**Reference Books:**

- Mark Lutz, "Programming Python", 4th Edition, O'Reilly Media, 2011. ISBN-13:978-9350232873.
- Wesley J Chun, "Core Python Applications Programming", 3rd Edition, Pearson Education India, 2015. ISBN—13: 978—9332555365.
- Reema Thareja, "Python Programming using problem solving approach", Oxford University Press, 2017

**Web Materials:**

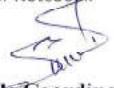
- W1: <https://nptel.ac.in/courses/106106145/>  
 W2: <https://nptel.ac.in/courses/117106113/34>  
 W3: <https://nptel.ac.in/courses/106105166/26>

**Details of the teaching aids:**

Black Board and Power Point Presentations, Python IDE, Jupyter Notebook



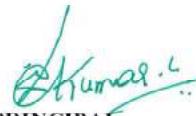
Course Incharge



Module Coordinator



HOD ECE



PRINCIPAL



**K. S. INSTITUTE OF TECHNOLOGY BANGALORE**  
**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**  
**LESSON PLAN 2022-23 EVEN SEMESTER**

**COURSE INCHARGE** : Dr. Surekha Borra  
**COURSE CODE/TITLE** : 18EC646/ Python Application Programming  
**YEAR/ SEMESTER/SECTION** : 4/6 /B  
**BRANCH** : ECE

Sl. No.	Topic to be delivered	Mode of Delivery	Teaching Aid	No. of Periods	Cumulative No. of Periods	Proposed Date
<b>Module 1: INTRODUCTION</b>						
1	Introduction: Why should you learn to write programs? Computer hardware architecture	L+D	BB+PPT	1	1	20/3/23
2	Terminology: Interpreter and compiler, programs, building blocks, Debugging	L+D	BB+PPT	1	2	21/3/23
3	Variables, expressions, and statements	L+ D	BB+PPT	1	3	23/3/23
4	Variables, expressions, and statements	L+D	BB+PPT		4	27/3/23
5	Variables, expressions, and statements: Exercises	L+D	BB+PPT	1	5	28/3/23
6	Variables, expressions, and statements: Exercises	L+D	BB+PPT	1	6	29/3/23
7	Conditional execution	L+ D	BB+PPT	1	7	30/3/23
8	Conditional execution: Exercises	L+D	BB+PPT	1	8	1/4/23
9	Functions	L+D	BB+PPT	1	9	4/4/23
10	Functions: Exercises	L+D	BB+PPT	1	10	5/4/23
<b>Module 2: ITERATIONS</b>						
11	Iteration	L+D	BB+PPT	1	11	6/4/23
12	Iteration: Exercises	L+ D	BB+PPT	1	12	10/4/23
13	Strings	L+D	BB+PPT	1	13	11/4/23
14	Strings: Exercises	L+D	BB+PPT	1	14	12/4/23
15	Strings: Exercises	L+D	BB+PPT	1	15	13/4/23
16	Files	L+D	BB+PPT	1	16	15/4/23

17	IA-1				17	18/4/23
18	Files; Exercises	L+D	BB+PPT	1	18	20/4/23
19	Files; Exercises			1	19	24/4/23
<b>Module 3: LISTS</b>						
20	Lists	L+D	BB+PPT	1	20	25/4/23
21	Lists; Exercises	L+D	BB+PPT	1	21	26/4/23
22	Lists; Exercises	L+D	BB+PPT	1	22	27/4/23
23	Dictionaries	L+D	BB+PPT	1	23	2/5/23
24	Dictionaries; Exercises	L+D	BB+PPT	1	24	3/5/23
25	Dictionaries; Exercises	L+D	BB+PPT	1	25	4/5/23
26	Tuples	L+D	BB+PPT	1	26	8/5/23
27	Tuples; Exercises	L+D	BB+PPT	1	27	9/5/23
28	Regular Expressions	L+D	BB+PPT	1	28	10/5/23
29	Regular Expressions; Exercises	L+D	BB+PPT	1	29	11/5/23
<b>Module 4: CLASSES AND OBJECTS</b>						
30	Classes and objects	L+D	BB+PPT	1	30	15/5/23
31	Classes and objects	L+D	BB+PPT	1	31	16/5/23
32	Classes and objects; Exercises	L+D	BB+PPT	1	32	17/5/23
33	Classes and Functions	L+D	BB+PPT	1	33	18/5/23
34	Classes and Functions; Exercises	L+D	BB+PPT	1	34	22/5/23
35	Classes and Methods	L+D	BB+PPT	1	35	23/5/23
36	Classes and Methods; Exercises	L+D	BB+PPT	1	36	24/5/23
<b>Module 5: NETWORKED PROGRAMS</b>						
37	Networked programs	L+D	BB+PPT	1	37	25/5/23
38	Networked Programs; Exercises	L+D	BB+PPT	1	38	27/5/23
39	IA-2					30/5/23
40	Using Web Services	L+D	BB+PPT	1	40	1/6/23
41	Using Web Services; Exercises	L+D	BB+PPT	1	41	5/6/23
42	Using databases Exercises	L+D	BB+PPT	1	42	6/6/23
43	Using databases Exercises	L+D	BB+PPT	1	43	7/6/23
44	Using databases Exercises	L+D	BB+PPT	1	44	8/6/23
45	SQL	L+D	BB+PPT	1	45	10/6/23
46	SQL Exercises	L+D	BB+PPT	1	46	12/6/23
47	Additional Exercises	L+D	BB+PPT	1	47	13/6/23

48	Additional Exercises	L+D	BB+PPT	1	48	14/6/23
49	Additional Exercises	L+D	BB+PPT	1	49	15/6/23
50	Additional Exercises	L+D	BB+PPT	1	50	19/6/23
51	Additional Exercises	L+D	BB+PPT	1	51	20/6/23
52	Additional Exercises	L+D	BB+PPT	1	52	21/6/23
53	Additional Exercises	L+D	BB+PPT	1	53	22/6/23
54	Mini-Project Presentations	L+D	BB+PPT	1	54	24/6/23
55	Mini-Project Presentations	L+D	BB+PPT	1	55	26/6/23
56	Mini-Project Presentations	L+D	BB+PPT	1	56	28/6/23
57	IA-3				57	4/7/23
58	Mini-Project Presentations	L+D	BB+PPT	1	58	6/7/23
59	Mini Project Prsentations	L+D	BB+PPT	1	59	8/7/23
60	Mini-Project Presentations	L+D	BB+PPT	1	60	10/7/23

**Textbooks:**

1. Charles R. Sseverance, "Python for Everybody: Exploring Data Using Python 3", 1 Edition, Create Space Independent Publishing Platform, 2016 (Chapters 1 — 13, 15).
2. Allen B. Do ey, "Think Python: How to Think Like a Computer Scientist", 2n Edition, Green Tea Press, 2015 (Chapters 15,16,17)

**Reference Books:**

1. Mark Lutz, "Programming Python", 4th Edition, O'Reilly Media, 2011.ISBN 13z978 9350232873.
2. Wesley J Chun, "Core Python Applications Programming", 3rd Edition, Pearson Education India, 2015. ISBN—13: 978—9332555365.
3. Reema Thareja, "Python Programming using problem solving approach", Oxford university press, 2017

**Web Materials:**

- W1: <https://nptel.ac.in/courses/106106145/>  
 W2: <https://nptel.ac.in/courses/117106113/34>  
 W3: <https://nptel.ac.in/courses/106105166/26>

**Details of the teaching aids:**

Black Board and Power Point Presentations, Python IDE, Jupyter Notebook



Course Incharge



Module Coordinator



HOD ECE



PRINCIPAL



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**ASSIGNMENT-1**

Academic Year	2022-2023		
Batch	2020-2024		
Year/Semester/section	III/VI/A & B		
Subject Code-Title	18EC646-Python Application Programming		
Name of the Instructor	Dr.B.Surekha	Dept	ECE

Assignment No: 1

Total marks:30

Date of Issue: 21/3/2023

Date of Submission:15/4/2023

Sl.No.	Assignment Questions	K Level	CO	Marks
1.	a) Utilize Python operators and their precedence to build a python program to display the result of an expression $F_n=2^{2n+1}$ . The n value to be prompted by the user. b) Make use of Python arithmetic operators and build a python program to calculate the area of square, rectangle, and circle. print the results. Take input from user. c) Make use of Python arithmetic operators and build a python program to convert given Celsius to Fahrenheit temperature.	Applying(K3)	CO1	6
2.	a) Build a Python user defined function to find maximum and minimum letter in a string also to find the length of the string using in build functions. b) Build a Python function that takes decimal number as input and convert that to binary equivalent and return the same. c) Build a single user defined function named 'Solve' that returns the Remainder and Quotient.	Applying(K3)	CO1	6
3.	a) Make use of conditional statements to build a Python user defined function to find the largest of three numbers. b) Make use of Python conditional statements to build a user defined function to check whether the given year is leap year or not with functions. c) Build a Python program to check whether the given number is positive or negative or zero using conditional statements. d) Build a Python program to find the best of two test average marks out of three test marks accepted from the user.	Applying(K3)	CO1	6
4.	a) Make use of Python loops to build a python program to generate and print prime numbers in the given range. b) Build a Python program to generate Fibonacci series up to the given limit by defining Fibonacci (n) function c) Build a program to compute only even numbers sum within the given natural number using continue statement	Applying(K3)	CO2	6
5.	a) Make use of for loops to model Python program for counting, summing, and average of elements. b) Make use of iterations and build a python program to find the largest value from the given set of accepted values.	Applying(K3)	CO2	6

Signature of Course Incharge

Signature of HOD/ECE



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**ASSIGNMENT 1 SCHEME**  
**2022 - 23 EVEN SEMESTER**

Degree : B.E  
Branch : ECE  
Course Title : PYTHON APPLICATION  
PROGRAMMING

Semester : VI  
Course Code : 18EC646  
Max Marks : 30

Q.NO.	POINTS	MARKS
1a	#Using Python Operators n=int(input('Enter the n value : ')) Fn=2**(2*n+1) print(Fn)  -----  # Using Math Module n=int(input('Enter the value for n:\n')) import math Fn=pow(2,(2*n)+1) print(Fn)	2
1b	import math a=int(input('Enter the length of the side for square : ')) l=int(input('Enter the length of the rectangle : ' )) b=int(input('Enter the breadth of the rectangle : ' )) r=int(input('Enter the radius of the circle : ')) print("Area of square : ",a*a) print("Area of rectangle : ",l*b) print("Area of circle : ",math.pi*r*r)	2
1c	celsius=float(input('Enter temperature in celsius:\n')) fahr=celsius*9/5+32 print (fahr)	2
2a	def max_min_len(name): maximum=max(name) minimum=min(name) length=len(name) return maximum,minimum,length  name=input("Enter the string : ") m,n,l=max_min_len(str(name)) print("maximum = ",m,' minimum = ',n,' length = ',l)	2

2b	<pre> def decimalToBinary(num):     if num &gt; 1:         decimalToBinary(num // 2)         print(num % 2, end="") # decimal number number = int(input("Enter any decimal number: ")) decimalToBinary(number) ----- def binary(n):     l=[]     while(n&gt;0):         l.append(n%2)         n=n//2     l.reverse()     return l  n=int(input("Enter the decimal number : ")) l=binary(n) for i in range(len(l)):     print(l[i],end="") </pre>	2
2c	<pre> def Solve(divisor,dividend):     remainder=dividend%divisor     quotient=dividend//divisor     return remainder,quotient  div=int(input("Enter the dividend : ")) dis=int(input("Enter the divisor : ")) r,q=Solve(dis,div) print("Remainder = ",r,' Quotient = ',q) </pre>	2
3a	<pre> def largest(n1,n2,n3):     if n1&gt;n2 and n1&gt;n3:         print('largest number is ',n1)     elif n2&gt;n1 and n2&gt;n3:         print('largest number is ',n2)     else:         print('largest number is ',n3) n1=int(input("Enter the first number : ")) n2=int(input("Enter the second number : ")) n3=int(input("Enter the third number : ")) largest(n1,n2,n3) </pre>	1.5
3b	<pre> def leap_year(year):     if (year%4)==0:         if (year%100)==0:             if (year%400)==0:                 print("Leap year")             else:                 print("Not a leap year")         else:             print("Leap year")     else:         print("Not a leap year") </pre>	1.5

	<pre> year =int(input("Enter the year : ")) leap_year(year) ----- def findifleap(year):     if(year%400==0)and(year%100==0):         print("{0} is a leap year".format(year))     elif(year%4==0)and (year%100!=0):         print("{0} is leap year".format(year))     else:         print("{0} is not a leap year".format(year))  year=int(input("enter an year")) findifleap(year) </pre>	
3c	<pre> n=int(input('Enter a number : ')) if n&gt;0:     print("The number is positive") elif n&lt;0:     print("The number is negative") else:     print("The number is zero") </pre>	1.5
3d	<pre> l=[] for i in range(3):     n=int(input("Enter the marks : "))     l.append(n) l.sort() avg=(l[1]+l[2])/2 print('average marks =',avg)  ----- m1=int(input("Enter the marks in First IA: ")) m2=int(input("Enter the marks in Second IA: ")) m3=int(input("Enter the marks in Third IA: ")) if (m1&gt;m2):     if (m2&gt;m3):         total=m1+m2     else:         total=m1+m3 elif (m1&gt;m3):     total=m1+m2 else:     total=m2+m3 Avg=total/2 print("The average of best two test marks is: ", Avg) </pre>	1.5
4a	<pre> start=int(input("Enter the starting range of prime number ")) end=int(input("Enter the ending range of prime number "))  for i in range(start,end+1):     c=0     for j in range(2,i):         if(i==j) :             continue         if(i%j==0):             c=1 </pre>	2

	<pre> break if c==0 and i!=1:     print(i,end=" ") </pre>	
4b	<pre> def Fibonacci(n):     a=0     b=1     for i in range (n):         print(a,end= " ")         f=a+b         a=b         b=f n=int(input("Enter the number to generate fibonacci series : ")) Fibonacci(n) </pre>	2
4c	<pre> maximum=int(input("Enter the maximum value:")) total=0 for num in range(1,maximum+1):     if(num%2==0):         total=total+num     else:         continue print("THE SUM OF EVEN NUMBERS=", total) </pre>	2
5a	<pre> count=0 total=0 for y in [20,10,10,20,20,20]:     count=count+1     total=total+y  print('number of elements=',count) print('sum=',total) average=total/count print('average=',average) </pre>	3
5b	<pre> largest=0 l=[34,65,45,89,99,45,31] for i in l:     if i&gt;largest:         largest=i print("Largest = ",largest) </pre>	3

  
Course In charge

  
Module Coordinator

  
HOD ECE



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**ASSIGNMENT-2**

Academic Year	2022-2023		
Batch	2019-2023		
Year/Semester/section	III/VI/A & B		
Subject Code-Title	18EC646-Python Application Programming		
Name of the Instructor	Dr.B.Surekha	Dept	ECE

**Assignment No: 2**  
**Date of Issue: 27/4/2023**

**Total marks:30**  
**Date of Submission:26/5/2023**

Sl. No.	Assignment Questions	K Level	CO	Marks
1.	(a) Utilize python input function and strings to write a program to accept a sentence from the user and display the longest word of that sentence along with its length. (b) Build a python code to display the last 6 characters of the string "Make hay while the sun shines" to the console. (c) Build a python program to display the presence of the given sub-string in the main string. (d) Build a python program to accept a file name from the user. (i) Display the first N-lines of the file. (ii) Find the frequency of occurrence of the word accepted from the user in the file. (e) Build a python program to copy all lines beginning with vowels from FROM.text file to VOWELTEXT.text file retaining the other lines. (f) Build a python program to count the number of occurrences of a given word in a file.	Applying(K3)	CO2	6
2.	(a) Choose and explain any 6 lists handling functions in python with example. (b) Make use of a program to explain lists properties slicing and list traversing.	Applying(K3)	CO3	6
3.	(a) Make use of syntax to explain how tuples are created in python? Explain the different ways of accessing and creating them. (b) Identify the need of regular expressions in python language using examples.	Applying(K3)	CO3	6
4.	(a) Build a python program to read all the lines in a file accepted by the user and print all e-mail addresses contained in it. Assume the e-mail addresses that contain only non-white space characters (b) Build a python program to search for lines that start with the word 'From' and a character followed by a two-digit number between 00 and 99 followed by '.'. Print the number if it is greater than zero. Assume any input file.	Applying(K3)	CO3	6
5.	Make use of example program to instantiate a class and how the class members are accessed?	Applying(K3)	CO4	6

  
**Course In-charge**
  
**Module Coordinator**
  
**HOD ECE**



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**ASSIGNMENT 2 SCHEME**  
**2022 - 23 EVEN SEMESTER**

Degree : B.E  
Branch : ECE  
Course Title : **PYTHON APPLICATION PROGRAMMING**

Semester : VI  
Course Code : 18EC646  
Max Marks : 30

Q.NO.	POINTS	MARKS
1a	sentence = input("Enter sentence: ") longest = max(sentence.split()) # Finding longest word print("Longest word is: ", longest) # Displaying longest word print("And its length is: ", len(longest))	1
1b	string = "Make hay while the sun shines" a=string[-6:] print(a)	1
1c	string = input('Enter the string of sentences\n') sub_str = input('Enter the sub-string to search\n') if (string.find(sub_str) == -1): print(" NOT PRESENT") else: print(" YES IT IS PRESENT")	1
1d	2a i ACCEPT FILE AND DISPLAY FIRST N LINES filename=input("Enter filename : ") f1=open(filename,'r') N=int(input("Enter number of lines to be displayed : ")) linenumber=0 count=0 for line in f1: linenumber=linenumber+1 print(line,end="") #file already has each word in new lines, print adds new line by default, so we are changing the default if N==linenumber: break 2a ii FREQUENCY OF A WORD file = open("pythoneg.txt", "r") #read content of file to string data = file.read() frequency = data.count("Feature") print('frequency of the word :, frequency)	1
1e	with open('pythoneg.txt','r') as firstfile, open('voweltext.txt','a') as secondfile: # read content from first file for line in firstfile: words = line.split() for word in words: if word[0] in ['A','E','I','O','U']: # append content to second file secondfile.write(line)	1
1f	file = open("pythoneg.txt", "r") #read content of file to string data = file.read() #enter a word to finf number of its occurrence	1

	occurrences = data.count("Python") print('Number of occurrences of the word :', occurrences)	
2a	1.capitalize () – Converts the first character to upper case txt = "hello, and welcome to my world." x = txt.capitalize() print (x) output - Hello, and welcome to my world. 2.find () - Searches the string for a specified value and returns the position of where it was found txt = "Hello, welcome to my world." x = txt.find("welcome") print(x) output – 7 3.endswith () - Returns true if the string ends with the specified value txt = "Hello, welcome to my world." x = txt.endswith(".") print(x) output – True 4.lower () – Converts a string into lower case txt = "Hello my FRIENDS" x = txt.lower() print(x) output – hello my friends 5.split () – Splits the string at the specified separator, and returns a list txt = "welcome to the jungle" x = txt.split() print(x) output – ['welcome', 'to', 'the', 'jungle'] 6.upper () - Converts a string into upper case txt = "Hello my friends" x = txt.upper() print(x) output – HELLO MY FRIENDS	2
2b	1. A list is a sequence and they are ordered. Like a string, a list is a sequence of values. In a string, the values are characters in a list, they can be any type. The values in list are called elements or sometimes items. There are several ways to create a new list; the simplest is to enclose the elements in square brackets ("[" and "]") example [10, 20, 30, 40] ['crunchy frog', 'ram bladder', 'lark vomit'] The first example is a list of four integers. The second is a list of three strings. 2. The elements of a list don't have to be the same type. The following list contains a string, a float, an integer. Example: ['spam', 2.0, 5] 3. Nested lists are allowed. A list within another list is called nested lists. example: ['spam', 2.0, 5,[10, 20]] 4. Empty lists is also considered. A list that contains no elements is called an empty list you can create one with empty brackets, []. example: empty = [] 5. We can assign values As you might expect, you can assign list values to variables: >>> cheeses = ['Cheddar', 'Edam', 'Gouda']	2

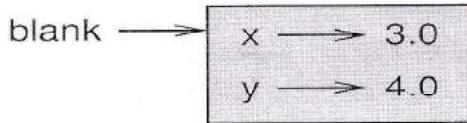
```

>>> numbers = [17, 123]
>>> empty = []
>>> print(cheeses, numbers, empty)
['Cheddar', 'Edam', 'Gouda'] [17, 123] []
6.Lists are mutable
Unlike strings, lists are mutable because you can change the order of items in a list or reassign an item in a list.
When the bracket operator appears on the left side of an assignment, it identifies the element of the list that will be assigned.
example:
>>> numbers = [17, 123]
>>> numbers[1] = 5
>>> print(numbers)
[17, 5]
The one-th element of numbers, which used to be 123, is now 5.
7. Accessing elements into the list.
The syntax for accessing the elements of a list is the same as for accessing the characters of a string: the bracket operator.
The expression inside the brackets specifies the index.
Remember that the indices start at 0:
example:
>>> print(cheeses[0])
Cheddar
If an index has a negative value, it counts backward from the end of the list.
The in operator also works on lists.
>>> cheeses = ['Cheddar', 'Edam', 'Gouda']
>>> 'Edam' in cheeses
True
>>> 'Brie' in cheeses
False
8.Traversing a list
The most common way to traverse the elements of a list is with a for loop. The syntax is the same as for strings:
for cheese in cheeses:
    print(cheese)
LIST SLICING
The slice operator also works on lists:
syntax and example:
>>> t = ['a', 'b', 'c', 'd', 'e', 'f']
>>> t[1:3]
['b', 'c']
>>> t[:4]
['a', 'b', 'c', 'd']
>>> t[3:]
['d', 'e', 'f']
If you omit the first index, the slice starts at the beginning. If you omit the second, the slice goes to the end. So if you omit both, the slice is a copy of the whole list.
>>> t[::]
['a', 'b', 'c', 'd', 'e', 'f']
S
Since lists are mutable, it is often useful to make a copy before performing operations that fold, spindle, or mutilate lists.
A slice operator on the left side of an assignment can update multiple elements:
>>> t = ['a', 'b', 'c', 'd', 'e', 'f']
>>> t[1:3] = ['x', 'y']
>>> print(t)
['a', 'x', 'y', 'd', 'e', 'f']

```

3a	<p>A tuple is a sequence of values much like a list. The values stored in a tuple can be any type, and they are indexed by integers. The important difference is that tuples are immutable. Tuples are also comparable and hashable so we can sort lists of them and use tuples as key values in Python dictionaries.</p> <p>Syntactically, a tuple is a comma-separated list of values:</p> <pre>&gt;&gt;&gt; t = 'a', 'b', 'c', 'd', 'e'</pre> <p>Although it is not necessary, it is common to enclose tuples in parentheses to help us quickly identify tuples when we look at Python code:</p> <pre>&gt;&gt;&gt; t = ('a', 'b', 'c', 'd', 'e')</pre> <p>To create a tuple with a single element, you have to include the final comma:</p> <pre>&gt;&gt;&gt; t1 = ('a',) &gt;&gt;&gt; type(t1) &lt;type 'tuple'&gt;</pre> <p>Without the comma Python treats ('a') as an expression with a string in parentheses that evaluates to a string:</p> <pre>&gt;&gt;&gt; t2 = ('a') &gt;&gt;&gt; type(t2) &lt;type 'str'&gt;</pre> <p>Another way to construct a tuple is the built-in function tuple. With no argument, it creates an empty tuple</p> <p>The word "tuple" comes from the names given to sequences of numbers of varying lengths: single, double, triple, quadruple, quintuple, sextuple, septuple, etc.</p> <pre>&gt;&gt;&gt; t = tuple() &gt;&gt;&gt; print(t) ()</pre> <p>If the argument is a sequence (string, list, or tuple), the result of the call to tuple is a tuple with the elements of the sequence:</p> <pre>&gt;&gt;&gt; t = tuple('lupins') &gt;&gt;&gt; print(t) ('l', 'u', 'p', 'i', 'n', 's')</pre> <p>Because tuple is the name of a constructor, you should avoid using it as a variable name.</p> <p>Most list operators also work on tuples. The bracket operator indexes an element:</p> <pre>&gt;&gt;&gt; t = ('a', 'b', 'c', 'd', 'e') &gt;&gt;&gt; print(t[0]) 'a'</pre> <p>And the slice operator selects a range of elements.</p> <pre>&gt;&gt;&gt; print(t[1:3]) ('b', 'c')</pre> <p>But if you try to modify one of the elements of the tuple, you get an error:</p> <pre>&gt;&gt;&gt; t[0] = 'A'</pre> <p>You can't modify the elements of a tuple, but you can replace one tuple with another:</p> <pre>&gt;&gt;&gt; t = ('A') + t[1:] &gt;&gt;&gt; print(t) ('A', 'b', 'c', 'd', 'e')</pre>	3
3b	<p>Regular expressions is a library. It is used to match strings of text such as particular characters, words, or patterns of characters.</p> <p>It means that we can match and extract any string pattern from the text with the help of regular expressions.</p> <p>Like any other library, it has to be imported before use, as:</p> <pre>import re</pre> <p>Regular expressions are useful in :</p> <ul style="list-style-type: none"> <li>&gt; verify the structure of strings</li> <li>&gt; extract substrings form structured strings</li> <li>&gt; search / replace / rearrange parts of the string</li> <li>&gt; split a string</li> </ul> <p>Example:</p> <pre># Search for lines that contain 'From' import re</pre>	3

	<pre>hand = open('demo.txt') for line in hand:     line = line.rstrip()     if re.search('From:', line):         print(line) This will only match lines that start with the string "From:". This is still a very simple example that we could have done equivalently with the startswith() method from the string library. But it serves to introduce the notion that regular expressions contain special action characters that give us more control as to what will match the regular expression.</pre>	
4a	<pre>data = 'From stephen.marquard@uct.ac.za Sat Jan 5 09:14:16 2008' atpos = data.find('@') print(atpos) spos = data.find(' ',atpos) print(spos) host = data[atpos+1:spos] print(host)</pre>	3
4b	<pre>import re file = open('Abc.txt') for line in file:     x=re.findall('^From.*[0-9][0-9]:.*', line)     if len(x) &gt; 0: print(x)</pre>	3
5	<p>class: A user-defined compound type. A class can also be thought of as a template for the objects that are instances of it.</p> <p>instantiate: To create an instance of a class.</p> <p>instance: An object that belongs to a class.</p> <p>object: A compound data type that is often used to model a thing or concept in the real world.</p> <p>constructor: A method used to create new objects.</p> <p>attribute: One of the named data items that makes up an instance.-</p> <p>Example:</p> <pre>class Point:     pass blank = Point() blank.x = 3.0 blank.y = 4.0 x = blank.x print(x) print(blank.y) 3.0 #Explanation about every command</pre>	6




Course In charge



Module Coordinator



HOD ECE



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE – 560109**  
**Department of Electronics & Communication Engineering**

**ASSIGNMENT TYPE:** MINI PROJECT

**Important dates:**

Sl. No	Details	Date
1.	Date of issue of topics for presentation	25/3/23
2.	Dates for Appeal/challenge (on or before)	28/3/23
3.	Last date for the submission of the Project Code	8/6/23
4.	Last date for Demo Presentation	10/6/23
5.	Date of announcement of evaluation	30/6/23

Note:

- Projects should be helpful to society**
- Assignments marks will not be given if submitted on later dates or failed to present a seminar/demo.

**Rubrics/Evaluation Strategy**

Sl. No	Criteria	Marks
1.	Results	10
2.	Quality of Team Demo	5
3.	Quality of Code	5
4.	Usefulness to society/environment	5
5.	Individual Contribution to Project	5
6.	Individual Contribution to Report	5
7.	Tool Learning	5
	<b>Total</b>	<b>40 (Scale the Marks to 10)</b>

  
Signature of Course Incharge

  
Signature of HOD/ECE

**K.S.INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**VI SEMESTER SECTION : A ASSIGNMENT :3**  
**COURSE : PYTHON APPLICATION PROGRAMMING CODE: 18EC646**

Sl.No.	Team No.		USN	Name	Title of Project	Date of presentation	Marks
1	T-1	1	1KS20EC03G	HARSHITHA. N	Banking Sytem	16/6/23	10
2		2	1KS20EC034	HARSHITHA. BL			10
3		3	1KS20EC035	HARSHITHA. J			10
4		4	1KS20EC032	HARINI K			9
5	T-2	1	1KS20EC025	Divya.N	Library Management System	16/6/23	10
6		2	1KS20EC023	Dhamini.J.Naidu			10
7		3	1KS20EC010	Bhavitha.B			10
8	T-3	1	1KS20EC015	C. Umadevi	Online digital voting system using pyth	19/6/23	10
9		2	1KS20EC050	K. Prathima			10
10		3	1KS19EC026	Eram Fathima			10
11		4	1KS20EC060	N.Gouthami			10
12	T-4	1	1KS20EC042	K.Jeevitha	Face detection and counting	16/6/23	10
13		2	1KS20EC046	Kavya S M			10
14		3	1KS20EC054	Madiha			10
15	T-5	1	1KS20EC002	Aditi Dubey	Data visualization of Covid-19 Cases in	16/6/23	10
16		2	1KS20EC030	Gandhamani			10
17		3	1KS20EC057	Meghashree			10
18	T-6	1	1KS20EC053	M.Archana	Units converter	19/6/23	10
19		2	1KS20EC047	Keerthana.b.s			10
20		3	1KS20EC014	C.Sai Srujitha			10
21		4	1KS20EC038	J.Chaithanya Krishna			10
22	T-7	1	1KS20EC039	JAMUNA SG	Employees number tracking	16/6/23	10
23		2	1KS20EC040	JANHAVI R			10
24		3	1KS20EC056	MANASWINI KM			AB
25	T-8	1	1KS20EC077	Rakshith R	Language Translator using Python	16/6/23	10
26		2	1KS20EC093	Sharath M			10

27		3	1KS20FC108	Uday C H				10
28		4	1KS20EC098	Shreyas P S Rao				10
29	T-9	1	1KS19EC034	Hima swetha	Health and Fitness Calculator	16/6/23	10	
30		2	1KS20EC008	Bs. Hema shrec				
31		3	1KS20EC013	Chaitra k				
32	T-10	1	1KS20EC070	Priyanka K	ATM Simulation	19/6/23	10	
33		2	1KS20EC083	S Arun kumar				
34		3	1KS20EC085	Sadhana srinivas				
35		4	1KS20EC092	Shakthi Anbazhagan M				10
36	T-11	1	1KS20EC001	Abhishek J	Object Weight Calculation	19/6/23	10	
37		2	1KS20EC017	Chetan G				
38		3	1KS20EC018	Chetan Kumar J				
39		4	1KS20EC019	Chetan Kumar T				6
40	T-12	1	1KS20EC111	VAISHNAVI VH	QR CODE GENERATOR USING PYTHION	16/6/23	10	
41		2	1KS20EC113	VIJAYALAKSHMI K				
42		3	1KS20EC117	YASHILAA S				
43	T-13	1	1KS20EC026	Eshwar Biradar	Make a clock using python programmi	16/6/23	8	
44		2	1KS20EC048	Kiran Dev D				
45		3	1KS20EC052	Kusuma V R-				
46		4	1KS20EC055	Mahesh Biradar				10
47	T-14	1	1KS20EC062	NEHA NAGARAJ AIRANI	Password Compliance Checker	15/6/23	9	
48		2	1KS20EC112	N Varsha				
49		3	1KS20EC080	Ramya T				
50	T-15	1	1KS20EC073	Rahul Krishnan V	Python Weather Forecasting	16/6/23	10	
51		2	1KS20EC103	Sumukha S				
52		3	1KS20EC105	Tarun Prasanna				
53		4	1KS20EC106	Taejas N Reddy				0
54	T-16	1	1KS20EC084	Sachin NM	Air Quality index Tracker	16/6/23	10	
55		2	1KS20EC087	Sandeep YH				
56		3	1KS20EC109	Ujjwal Naidu				
57		4	1KS20EC114	Vinay SP				10

58	T-17	<b>1</b>	1KS20EC068	Prema G	Random Geometric Patten	16/6/23	10
59		<b>2</b>	1KS20EC079	Rameshwar			10
60		<b>3</b>	1KS20EC094	Shashank S			10
61		<b>4</b>	1KS20EC097	Shreyas M5			10
62	<b>T-18</b>	<b>1</b>	1KS20EC043	AMSHUMANTH.K.M	TEXT TO SPEECH CONVERTER	16/6/23	10
63		<b>2</b>	1KS20EC049	KIRAN V NARAYAN			10
64		<b>3</b>	1KS20EC051	KUMAR KG			AB
65		<b>4</b>	1KS20EC058	MOHAN KRISHNA			10
66	<b>T-19</b>	<b>1</b>	1KS20EC059	N Shreya	Generation of Contact Book	16/6/23	10
67		<b>2</b>	1KS20EC076	Rakshith NM			10
68		<b>3</b>	1KS20EC101	Sonika R			10
69		<b>4</b>	1KS20EC104	Suraksha N			10
70	<b>T-20</b>	<b>1</b>	1KS20EC066	Pradhyumna SK	Daily Expenses Entry	16/6/23	8
71		<b>2</b>	1KS20EC075	Rajath KA			8
72		<b>3</b>	1KS20EC116	Vineeth MS			8
73		<b>4</b>	1KS20EC118	Yeshwanth Y			8
74	<b>T-21</b>	<b>1</b>	1KS20EC061	Neha CR	BMI Calculator	16/6/23	10
75		<b>2</b>	1KS20EC065	Pavani TS			10
76		<b>3</b>	1KS20EC071	Priyanka M			10
77		<b>4</b>	1KS20EC072	Pushpa DT			7
78	<b>T-22</b>	<b>1</b>	1KS20EC024	Dhruba Kumar S	Currency Converter	16/6/23	5
79		<b>2</b>	1KS20EC028	Gagan HC			10
80		<b>3</b>	1KS20EC033	Harshith Gowda AR			7
81		<b>4</b>	1KS20EC041	Jayanth H			10
82	<b>T-23</b>	<b>1</b>	1KS20EC004	Ajay BG	Expenses Tracker GUI with Calender	16/6/23	10
83		<b>2</b>	1KS20EC006	Akash M			10
84		<b>3</b>	1KS20EC016	Chaya S			10
85	<b>T-24</b>	<b>1</b>	1KS20EC021	Darshan Kumar S	Speech to Text Converter	16/6/23	10
86		<b>2</b>	1KS20EC027	G Bhavana P			10
87		<b>3</b>	1KS20EC031	Gomitha RC			10
88	<b>T-25</b>	<b>1</b>	1KS20EC095	Shiva Reddy	Movie ticket booking system	19/6/23	10

89		<b>2</b>	1KS20EC096	Shreya H			10
90		<b>3</b>	1KS20EC099	Shweta Deepak			10
91	T-26	<b>1</b>	1KS20EC089	Sanjana G	Morse code translator	19/6/23	10
92		<b>2</b>	1KS20EC091	Sanjana TG			
93		<b>3</b>	1KS20EC102	Sumana N			10
94		<b>4</b>	1KS20EC110	Vaishnavi A			10
95	T-27	<b>1</b>	1KS20EC107	T Girish Chowdary	Donation Tracker	19/6/23	10
96	T-28	<b>1</b>	1KS20EC037	Inchara P	Income Tax Calculation	19/6/23	10
97		<b>2</b>	1KS20EC029	Gagana BS			10
98	T-29	<b>1</b>	1KS20EC003	Afeefa	Donation Report Generator	19/6/23	10
99		<b>2</b>	1KS20EC011	Bhuvaneshwari	"		10
100		<b>3</b>	1KS20EC012	Chaitanya			10
101		<b>4</b>	1KS20EC020	Darshan K			10
102	T-30	<b>1</b>	1KS20EC074	RAHUL R	Youtube mp4 downloader	19/6/23	10
103		<b>2</b>	1KS20EC078	RAKSHITHA A			10
104		<b>3</b>	1KS20EC082	ROHIT A K			10
105		<b>4</b>	1KS20EC115	VINAY SAGAR V ALUR			10






**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**FIRST INTERNAL TEST QUESTION PAPER 2022 – 23 EVEN SEMESTER**

**SET: A**

USN							
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Degree : B. E  
Branch : ECE  
Course Title : Python Application Programming  
Duration : 90 Minutes

Semester : VI A & B  
Course Code : 18EC646  
Date : 18-4-2023  
Max Marks : 30

**Note: Answer ONE full question from each part.**

**K-Levels: K1-Remebering, K2-Understanding, K3-Applying, K4-Analyzing, K5-Evaluating, K6-Creating**

Q No.	Question	Marks	CO mapping	K-Level
<b>PART-A</b>				
1(a)	Identify and explain the applications of complier and interpreter with an example and list the features of Python Programming Language.	6	CO1	K3
(b)	Make use of flowchart to explain the conditional execution and alternative execution statements with an example.	6	CO1	K3
(c)	Make use of Python arithmetic operators, try and except statements and build a python program to convert given Fahrenheit to Celsius temperature.	6	CO1	K3
<b>OR</b>				
2(a)	Develop example for fruitful and non-fruitful functions in Python.	6	CO1	K3
(b)	Identify the rules of precedence used by Python to evaluate an expression with example.	6	CO1	K3
(c)	Make use of at least three different types of variables in example program to explain the rules to declare a variable in Python.	6	CO1	K3
<b>PART-B</b>				
3	Make use of syntax and example program to explain the definite and infinite looping constructs in python.	12	CO2	K3
<b>OR</b>				
4	Identify the use of break and continue keywords using a snippet of code.	12	CO2	K3

Course In charge

Module Coordinator

HOD ECE

Principal

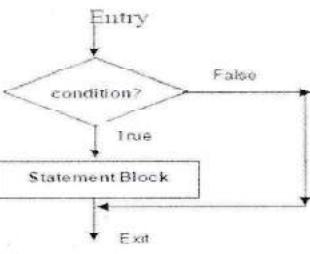


**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**FIRST INTERNAL TEST QUESTION PAPER 2022-23 EVEN SEMESTER**

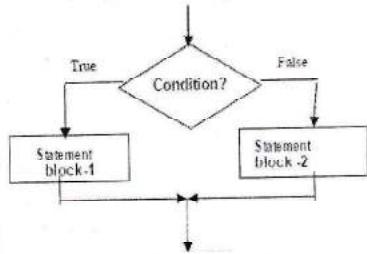
SET - A

**SCHEME AND SOLUTION**

Degree : B. E Semester : VI  
Branch : Electronics & Communication Engg. Course Code : 18EC646  
Course Title : Python Application Max Marks : 30  
Programming

Q.NO.	POINTS	MARKS
1.(a)	<p><b>Features of Python</b></p> <ul style="list-style-type: none"><li>• A variety of basic data types are available: numbers, strings, lists, and dictionaries.</li><li>• Python supports object-oriented programming with classes and multiple inheritance.</li><li>• Code can be grouped into modules and packages.</li><li>• The language supports raising and catching exceptions, resulting in cleaner error handling.</li><li>• Data types are strongly and dynamically typed.</li></ul> <p>Python is an <b>interpreter</b> and when we are running Python interactively, we can type a line of Python (a sentence) and Python processes it immediately and is ready for us to type another line of Python.</p> <p>Example:</p> <pre>&gt;&gt;&gt; x = 6 &gt;&gt;&gt; print(x) 6</pre> <p><b>Compilers</b> needs to be handed the entire program in a file, and then it runs a process to translate the high-level source code into machine language and then the compiler puts the resulting machine language into a file for later execution.</p>	<b>2M+2M+2M</b>
(b)	<p><b>Conditional Execution</b></p>  <p>Example:</p> <pre>&gt;&gt;&gt; x=10 &gt;&gt;&gt; if x&lt;40:     print("Fail")</pre>	<b>3M+3M</b>

### Alternative Execution



```
x=int(input("Enter x:"))
```

```
if x%2==0:  
    print("x is even")  
else:  
    print("x is odd")
```

(c)

**Python program to convert given Fahrenheit to Celsius temperature.**

```
inp = input('Enter Fahrenheit Temperature:')  
try:  
    fahr = float(inp)  
    cel = (fahr - 32.0) * 5.0 / 9.0  
    print(cel)  
except:  
    print('Please enter a number')
```

6M

2.(a)

A function that performs some task, but do not return any value to the calling function is known as **Non-fruitful function (void function)**.

The function which returns some result to the calling function after performing a task is known as **fruitful function**. The built-in functions like mathematical functions, random number generating functions etc

3M+3M

```
def sum(a,b):  
    return a+b  
x=int(input("Enter a number:"))  
y=int(input("Enter another number:"))  
s=sum(x,y)  
print("Sum of two numbers:",s)
```

(b)

Highest precedence rule to lowest precedence rule:

- Parenthesis are always respected
- Exponentiation (raise to a power)
- Multiplication, Division, and Remainder
- Addition and Subtraction

```
>>> x = 1 + 2 ** 3 / 4 * 5
```

```
>>> print(x)
```

```
11.0
```

6M

Q.NO.	POINTS	MARKS
(c)	<ul style="list-style-type: none"> <li>• Variable names can be arbitrarily long.</li> <li>• They can contain both letters and numbers, but they cannot start with a number.</li> <li>• It is legal to use uppercase letters, but it is a good idea to begin variable names with a lowercase letter</li> <li>• The underscore character ( _ ) can appear in a name.</li> <li>• Variable names can start with an underscore character, but we generally avoid doing this unless we are writing library code for others to use.</li> <li>• Keywords or reserved words cannot be used as variable names.</li> <li>• <b>Examples</b></li> </ul> <pre>&gt;&gt;&gt; xample=10 &gt;&gt;&gt; print(x) 10          #output &gt;&gt;&gt; type(x) &lt;class 'int'&gt; #type of x is integer &gt;&gt;&gt; y="hi" &gt;&gt;&gt; print(y) hi #output &gt;&gt;&gt; type(y) &lt;class 'str'&gt; #type of y is string Another example for float</pre>	<b>6M</b>
3.	<p><b>Infinite Loops:</b> A loop may execute infinite number of times when the condition is never going to become false.</p> <p><b>Example:</b></p> <pre>while True:     x=int(input("Enter a number:"))     if x&gt;= 0:         print("You have entered ",x)     else:         print("You have entered a negative number!!")</pre> <p><b>Definite Loops:</b> When we know total number of times the set of statements to be executed, for loop will be used.</p> <p><b>Example:</b></p> <pre>names=["Ram", "Shyam", "Bheem"] for x in names:     print("Happy New Year",x) print('Done!')</pre> <p>4. Sometimes, programmer would like to move to next iteration by skipping few statements in the loop, based on some condition with current iteration. For this purpose, continue statement is used.</p>	<b>6M+6M</b>

- Infinite loop has been avoided by using break statement with a condition.

**Example:**

```
sum=0
count=0
while True:
    x=input("Enter a number:")
    if x%2!=0:
        continue
    else:
        sum+=x
        count+=1
    if count==5:
        break
print("Sum= ", sum)
```



Course In charge



Module Coordinator



HOD ECE



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**FIRST INTERNAL TEST QUESTION PAPER 2022 – 23 EVEN SEMESTER**

SET: B

Degree : B. E  
Branch : ECE  
Course Title : Python Application Programming  
Duration : 90 Minutes

USN						
Semester	:	VI A & B				
Course Code	:	18EC646				
Date	:	18-4-2023				
Max Marks	:	30				

Note: Answer ONE full question from each part.

K-Levels: K1-Remebering, K2-Understanding, K3-Applying, K4-Analyzing, K5-Evaluating, K6-Creating

Q. No.	Question	Marks	CO mapping	K-Level
<b>PART-A</b>				
1(a)	Identify the types of errors with examples.	6	CO1	K3
(b)	Make use of syntax and flowcharts to explain the chained and nested conditional execution statements with an example.	6	CO1	K3
(c)	Make use of conditional statements to build a Python user defined function to find the smallest of three numbers.	6	CO1	K3
<b>OR</b>				
2(a)	Identify how to pass parameters in user defined functions with suitable example.	6	CO1	K3
(b)	Make use of built-in modules and explain type conversion functions and math functions in python.	6	CO1	K3
(c)	Make use of Python arithmetic operators and build a python program to calculate the area of square, rectangle, and circle. print the results. Take input from user.	6	CO1	K3
<b>PART-B</b>				
3	Identify the applications of while and for loops with suitable examples.	12	CO2	K3
<b>OR</b>				
4	Make use of syntax and example program to explain the finishing iterations with break and continue statements in python.	12	CO2	K3

Course In charge

Module Coordinator

HOD ECE

Principal

Selected



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**FIRST INTERNAL TEST QUESTION PAPER 2022-23 EVEN SEMESTER**

**SET: B**

**SCHEME AND SOLUTION**

Degree	: B.E	Semester : VI
Branch	: Electronics & Communication Engg	Course Code : 18EC646
Course Title	: Python Application Programming	Max Marks : 30

Q.NO.	POINTS	MARKS
1.(a)	<p><b>Syntax Errors:</b> The statements which are not following the grammar (or syntax) of the programming language are tend to result in syntax errors.</p> <p><b>Logical Errors:</b> Logical error occurs due to poor understanding of the problem. Syntactically, the program will be correct. But it may not give the expected output. For example, you are intended to find <math>a\%b</math>, but by mistake you have typed <math>a/b</math>. Then it is a logical error.</p> <p><b>Semantic Errors:</b> A semantic error may happen due to wrong use of variables, wrong operations or in wrong order. For example, trying to modify un-initialized variable etc.</p> <p><b>Building Blocks of Programs:</b> Input, output, sequential execution, conditional execution, repeated execution and reuse.</p>	4M+2M
(b)	<p><b>Nested Conditionals:</b> one set of conditional statements can be nested inside the other.</p> <p><b>Example</b>  <code>marks=float(input("Enter marks:"))  if marks&gt;=60:      if marks&lt;70:          print("First Class")      else:          print("Distinction")</code></p> <p><b>Chained Conditionals:</b> Some of the programs require more than one possibility to be checked for executing a set of statements. That means, we may have more than one branch.</p> <pre> graph TD     Cond1{Cond1} -- T --&gt; Block1[Statement Block-1]     Cond1 -- F --&gt; Cond2{Cond2}     Cond2 -- T --&gt; Block2[Statement Block-2]     Cond2 -- F --&gt; Cond3{Cond3}     Cond3 -- T --&gt; BlockN[Statement Block-n]     Cond3 -- F --&gt; BlockNplus1[Statement Block-(n+1)]   </pre> <p><b>Example:</b>  <code>marks=float(input("Enter marks:"))  if marks &gt;= 80:      print("First Class with Distinction")</code></p>	3M+3M

	<pre>         elif marks &gt;= 60 and marks &lt; 80:             print("First Class")         elif marks &gt;= 50 and marks &lt; 60:             print("Second Class")         elif marks &gt;= 35 and marks &lt; 50:             print("Third Class")         else:             print("Fail")     </pre>	
(c)	<p><b>Python user defined function to find the smallest of three numbers.</b></p> <pre> a = int(input('Enter first number : ')) b = int(input('Enter second number : ')) c = int(input('Enter third number : ')) smallest = 0 if a &lt; b and a &lt; c :     smallest = a elif b &lt; c :     smallest = b else :     smallest = c print(smallest, "is the smallest of three numbers.")     </pre>	6M
2.(a)	<ul style="list-style-type: none"> <li>• We can define more than one parameter in the function definition</li> <li>• We simply add more arguments when we call the function</li> <li>• We match the number and order of arguments and parameters</li> </ul> <pre> def addtwo(a, b):     added = a + b     return added  x = addtwo(3, 5) print(x)     </pre>	6M
(b)	<p>The type of the variable/value can be converted using functions <code>int()</code>, <code>float()</code>, <code>str()</code>. Python provides built-in functions that convert values from one type to another.</p> <pre> int('20') float('3.5') str(21)     </pre> <p>Python provides a rich set of mathematical functions through the module <code>math</code>. To use these functions, the <code>math</code> module has to be imported in the code.</p> <pre> sqrt(), pi, log10(), log(), sin(), cos(), tan(), pow()     </pre>	3M+3M

(c)	<pre> import math a=int(input('Enter the length of the side for square : ')) l=int(input('Enter the length of the rectangle : ')) b=int(input('Enter the breadth of the rectangle : ')) r=int(input('Enter the radius of the circle : ')) print("Area of square : ",a*a) print("Area of rectangle : ",l*b) print("Area of circle : ",math.pi*r*r) </pre>	6M
3.	<p><b>While Loop:</b> A loop may execute infinite number of times when the condition is never going to become false.</p> <p><b>Example:</b></p> <pre> n=1 while True:     print(n)     n=n+1 </pre> <p><b>For Loop:</b> When we know total number of times the set of statements to be executed, for loop will be used.</p> <p><b>Example:</b></p> <pre> for i in "Hello":     print(i, end="\t") </pre>	3M+3M
4	<ul style="list-style-type: none"> <li>Sometimes you are in an iteration of a loop and want to finish the current iteration and immediately jump to the next iteration.</li> <li>In that case you can use the continue statement to skip to the next iteration without finishing the body of the loop for the current iteration.</li> </ul> <p><b>Example:</b></p> <pre> while True:     line = input('&gt; ')     if line[0] == '#':         continue     if line == 'done':         break     print(line)     print('Done!') </pre>	6M+6M



Course In charge



Module Coordinator



HOD ECE



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**SECOND INTERNAL TEST QUESTION PAPER 2022 – 23 EVEN SEMESTER**

**SET: A**

USN					
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Degree	: B.E	Semester	: VI A & B
Branch	: ECE	Course Code	: 18EC646
Course Title	: Python Application Programming	Date	: 6-6-2023
Duration	: 90 Minutes	Max Marks	: 30

**Note: Answer ONE full question from each part.**

**K-Levels: K1-Remebering, K2-Understanding, K3-Applying, K4-Analyzing, K5-Evaluating, K6-Creating**

Q No.	Question	Marks	CO mapping	K-Level
<b>PART-A</b>				
1(a)	Make use of syntax and example programs to explain the properties and slicing of Lists.	6	CO3	K3
(b)	Differentiate between POP and REMOVE methods on lists. How to delete more than one element from a list.	6	CO3	K3
(c)	Make use of python program to demonstrate creation and indexing in dictionaries.	6	CO3	K3
<b>OR</b>				
2(a)	Choose any two list operations and list methods and explain with examples.	6	CO3	K3
(b)	Identify the differences between tuples and lists with examples.	6	CO3	K3
(c)	Make use of example programs to explain the following operations in tuples: (i) Sum of two tuples. (ii) Slicing operators. (iii) Assignment to variables.	6	CO3	K3
<b>PART-B</b>				
3 (a)	Choose any 6 string handling methods in python and explain with examples	6	CO2	K3
(b)	Make use of example program to define a class, instance, instantiation, attributes and accessing of class members.	6	CO4	K3
<b>OR</b>				
4(a)	Make use of syntaxes and examples to explain read (), write () methods for a file.	6	CO2	K3
(b)	Make use of python code, to explain how functions return instance values.	6	CO4	K3

Course In charge

Module Coordinator

HoD ECE

Principal  
*S. Selvaraj*

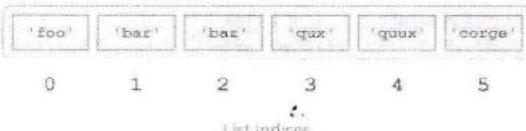


**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**SECOND INTERNAL TEST QUESTION PAPER 2022-23 EVEN SEMESTER**

SET - A

**SCHEME AND SOLUTION**

Degree	: B. E	Semester :	VI
Branch	: Electronics & Communication Engg.	Course Code :	18EC646
Course Title	: Python Application Programming	Max Marks :	30

Q. No.	POINTS	MARKS
1 (a)	<p>Properties of Lists: -3M</p> <p>Lists are ordered Sequence</p> <p>Example: <code>&gt;&gt;&gt; a = ['foo', 'bar', 'baz', 'qux']</code></p> <p>Lists can contain any arbitrary objects</p> <p>Example:</p> <pre>&gt;&gt;&gt; a = [21.42, 'foobar', 3, 4, 'bark', False, 3.14159]</pre> <p>List elements can be accessed by index.</p> <div style="text-align: center;">  </div> <div style="margin-left: 50px;"> <p>Example <code>&gt;&gt;&gt; a[0]</code>  <code>'foo'</code></p> <p><code>&gt;&gt;&gt; a[2]</code>  <code>'baz'</code></p> </div> <p>Lists can be nested to arbitrary depth.</p> <p>Example: <code>x = ['a', ['bb', ['ccc', 'ddd'], 'ee', 'ff'], 'g', ['hh', 'ii'], 'j']</code></p> <p>Lists are mutable.</p> <p>Example: <code>&gt;&gt;&gt; numbers = [17, 123]</code></p> <pre>&gt;&gt;&gt; numbers [1] = 5 &gt;&gt;&gt; print(numbers) [17, 5]</pre> <p><u>List Slicing-3M</u></p> <p>Example:</p> <pre>&gt;&gt;&gt; t = ['a', 'b', 'c', 'd', 'e', 'f'] &gt;&gt;&gt; t[1:3] ['b', 'c'] &gt;&gt;&gt; t[:4] ['a', 'b', 'c', 'd'] &gt;&gt;&gt; t[3:] ['d', 'e', 'f'] &gt;&gt;&gt; t[:] ['a', 'b', 'c', 'd', 'e', 'f']</pre> <p>#Explanation about every command</p>	3+3=6
1(b)	<p>POP:4 M</p> <ul style="list-style-type: none"> <li>-use pop if the index of the element to be removed is known.</li> <li>- pop modifies the list and returns the element that was removed.</li> <li>-If index is not provided pop deletes and returns the last element.</li> </ul>	4+2=6M

	<pre>&gt;&gt;&gt; t = ['a', 'b', 'c'] &gt;&gt;&gt; x = t.pop(1) &gt;&gt;&gt; print(t) ['a', 'c'] &gt;&gt;&gt; print(x) B &gt;&gt;&gt; t1 = ['a', 'b', 'c'] &gt;&gt;&gt; y = t1.pop() &gt;&gt;&gt; print(t1) ['a', 'b'] REMOVE:-2M Use remove if the element to be removed is known (but not the index). The return value from remove is None. &gt;&gt;&gt; t = ['a', 'b', 'c'] &gt;&gt;&gt; t.remove('b') &gt;&gt;&gt; print(t) ['a', 'c'] #Explanation about every command</pre>	
1 (c)	<p>Dictionaries creation -3M</p> <pre>&gt;&gt;&gt; purse = dict() &gt;&gt;&gt; purse['money'] = 12 &gt;&gt;&gt; purse['candy'] = 3 &gt;&gt;&gt; purse['tissues'] = 75 &gt;&gt;&gt; print(purse) {'money': 12, 'tissues': 75, 'candy': 3}</pre> <p>Dictionaries Indexing-3M</p> <pre>&gt;&gt;&gt; print(purse['candy']) 3 &gt;&gt;&gt; purse['candy'] = purse['candy'] + 2 &gt;&gt;&gt; print(purse) {'money': 12, 'tissues': 75, 'candy': 5} #Explanation about every command</pre>	3+3=6M
2(a)	<p>Any 2 List Operations:-3M</p> <p>i) Concatenation using "+"- The two list can be created and can be joined using '+'operator</p> <p>Eg- a= [1,2,3]  b= [4,5,6]  c=a+b  print(c)</p> <p>OUTPUT:- [1,2,3,4,5,6]</p> <p>ii)) Repetitions using " "*</p> <p>The * is used to repeat the list of number of times</p> <p>Eg - a= [1,2,3]  b=3  c=a*b  print(c)</p> <p>OUTPUT :-[1,2,3,1,2,3,1,2,3]</p> <p>Any 2 methods:-3M</p> <p>(a) append adds a new element to the end of a list:</p>	3+3=6M

Example:

```
>>> t = ['a', 'b', 'c']
>>> t.append('d')
>>> print(t)
['a', 'b', 'c', 'd']
```

(b) Extend takes a list as an argument and appends all of the elements. Leaves t2 unmodified.

Example:

```
>>> t1 = ['a', 'b', 'c']
>>> t2 = ['d', 'e']
>>> t1.extend(t2)
>>> print(t1)
['a', 'b', 'c', 'd', 'e']
```

(c) Sort arranges the elements of the list from low to high:

Example:

```
>>> t = ['d', 'c', 'e', 'b', 'a']
>>> t.sort()
>>> print(t)
['a', 'b', 'c', 'd', 'e']
```

#Explanation about every command

6\*1=6M

Sl. No.	List	Tuple
1.	Lists are mutable	Tuples are immutable
2.	Lists have several built-in methods	Tuple does not have many built-in methods.
3.	Lists consume more memory	Tuples consume less memory as compared to the list
4	The implication of iterations is time consuming in the list	Implications of iterations are much faster in tuples
5.	A list has a class of 'list', <class 'list'>	A tuple has a class of 'tuple', <class 'tuple'>
6.	Example- list_data = ['an', 'example', 'of', 'a', 'list'] print(list_data) output- ['an', 'example', 'of', 'a', 'list']	Example- tuple_data = ('this', 'is', 'an', 'example', 'of', 'tuple') print(tuple_data) output- ('this', 'is', 'an', 'example', 'of', 'tuple')

#Explanation about every command

2+2+2=6M

2(c) Sum of two tuples-2M

```
>>> t = ('a', 'b', 'c', 'd', 'e')
>>> t = ('A',) + t[1:]
>>> print(t)
('A', 'b', 'c', 'd', 'e')
```

Slicing operator-2M

```
>>> t = ('a', 'b', 'c', 'd', 'e')
>>> print(t[1:3])
```

	('b', 'c')  Assignment to variables-2M >>> m = ('have', 'fun') >>> x, y = m >>> x 'have' >>> y 'fun' #Explanation about every command	
3a	1.capitalize () – Converts the first character to upper case txt = "hello, and welcome to my world." x = txt.capitalize() print (x) output - Hello, and welcome to my world.  2.find () - Searches the string for a specified value and returns the position of where it was found txt = "Hello, welcome to my world." x = txt.find("welcome") print(x) output – 7  3.endswith () - Returns true if the string ends with the specified value txt = "Hello, welcome to my world." x = txt.endswith(".") print(x) output – True  4.lower () – Converts a string into lower case txt = "Hello my FRIENDS" x = txt.lower() print(x) output – hello my friends  5.split () – Splits the string at he specified separator, and returns a list txt = "welcome to the jungle" x = txt.split() print(x) output – ['welcome','to','the','jungle'] 6.upper () - Converts a string into upper case txt = "Hello my friends" x = txt.upper() print(x) output – HELLO MY FRIENDS #Explanation about every command	6*1=6M
3b	class: A user-defined compound type. A class can also be thought of as a template for the objects that are instances of it. instantiate: To create an instance of a class.	2+3+1=6M

instance: An object that belongs to a class.

attribute: One of the named data items that makes up an instance.-2M

Example:

class Point:

    pass

blank = Point()

blank.x = 3.0

blank.y = 4.0

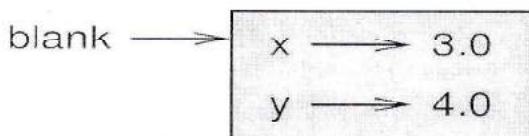
x = blank.x

print(x)

print(blank.y)

3.0

#Explanation about every command-3M



1M

4a

- File read()

```
fhand = open('sample.txt')  
inp = fhand.read()  
print(len(inp))  
print(inp[:20])
```

3+3=6M

- File Write ()

```
fout = open('output1.txt', 'w')  
print(fout)  
line1 = "Prepare well for IA 2\n"  
fout.write(line1)  
line2 = "Module 2(partial),3(full),4(partial)\n"  
fout.write(line2)  
fout.close()
```

- write():

The write() method writes a specified text to the file.

Where the specified text will be inserted depends on the file mode and stream position.

"a": The text will be inserted at the current file stream position, default at the end of the file.

"w": The file will be emptied before the text will be inserted at the current file stream position, default 0.

- Syntax :

file.write(byte)

- Example:

```
f = open("demofile2.txt", "a")
```

```
f.write("\nSee you soon!")
```

```
f.close()
```

#open and read the file after the appending:

	<pre>f = open("demofile2.txt", "r") print(f.read()) •      output : C:\Users\My Name&gt;python demo_file_write2.py Hello! Welcome to demofile2.txt This file is for testing purposes. Good Luck! See you soon!</pre> <ul style="list-style-type: none"> <li>• Read():       <p>The read() method returns the specified number of bytes from the file. Default is -1 which means the whole file.</p> </li> <li>• SYNTAX :</li> </ul> <pre>file.read()</pre> <ul style="list-style-type: none"> <li>• EXAMPLE:       <pre>f = open("demofile.txt", "r") print(f.read(33))</pre> </li> <li>• OUTPUT:       <pre>C:\Users\My Name&gt;python demo_file_read.py Hello! Welcome to demofile.txt This file is for testing purposes. Good Luck!</pre> </li> </ul> <p>#Explanation about every command</p>	
4b	<p>Functions can return instances.</p> <p>For example, find_center takes a Rectangle as an argument and returns a Point that contains the coordinates of the center of the Rectangle:</p> <pre>def find_center(rect):     p = Point()     p.x = rect.corner.x + rect.width/2     p.y = rect.corner.y + rect.height/2     return p  &gt;&gt;&gt; center = find_center(box) &gt;&gt;&gt; print_point(center) (50, 100)</pre>	3+3=6M



Course In charge



Module Coordinator



HOD ECE



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**SECOND INTERNAL TEST QUESTION PAPER 2022 – 23 EVEN SEMESTER**

SET: B

USN							
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Degree	: B.E	Semester	: VI A & B
Branch	: ECE	Course Code	: 18EC646
Course Title	: Python Application Programming	Date	: 6-6-2023
Duration	: 90 Minutes	Max Marks	: 30

Note: Answer ONE full question from each part.

K-Levels: K1-Remebering, K2-Understanding, K3-Applying, K4-Analyzing, K5-Evaluating, K6-Creating

Q No.	Question	Marks	CO mapping	K-Level
<b>PART-A</b>				
1(a)	Choose and explain any 3 lists handling functions in python with example.	6	CO3	K3
(b)	Make use of syntax to explain how tuples are created in python? Explain the different ways of accessing and creating them.	6	CO3	K3
(c)	Build a python program using lists to store and display the average of N integers accepted from the user.	6	CO3	K3
<b>OR</b>				
2(a)	Make use of a program to explain lists slicing and list traversing.	6	CO3	K3
(b)	Make use of python program to demonstrate creation and indexing in dictionaries.	6	CO3	K3
(c)	Identify the need of regular expressions in python language using examples.	6	CO3	K3
<b>PART-B</b>				
3(a)	Choose and explain any 6 built-in string manipulation functions supported by python.	6	CO2	K3
(b)	Identify the differences between shallow equality and deep equality with respect to classes and objects, with the help of python codes.	6	CO4	K3
<b>OR</b>				
4(a)	Make use of syntaxes and examples to explain file functions in python.	6	CO2	K3
(b)	Make use of example program to instantiate a class and how the class members are accessed?	6	CO4	K3

Course In charge

Module Coordinator

HOD ECE

Principal



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**THIRD INTERNAL TEST QUESTION PAPER 2022 – 23 EVEN SEMESTER**

SET: A

		USN								
Degree		B. E		Semester		VI A & B				
Branch		ECE		Course Code		18EC646				
Course Title		Python Application Programming		Date		4-07-2023				
Duration		90 Minutes		Max Marks		30				

**Note: Answer ONE full question from each part.**

**K-Levels: K1-Remebering, K2-Understanding, K3-Applying, K4-Analyzing, K5-Evaluating, K6-Creating**

Q No.	Question	Marks	CO mapping	K-Level
<b>PART-A</b>				
1(a)	Make use of python code and explain how to retrieve contents of an image file over socket connection?	6	CO5	K3
(b)	Develop python code for parsing JSON and explain.	6	CO5	K3
(c)	Make use of SQL cursor architecture to explain connect, execute, and close command of databases with suitable examples.	6	CO5	K3
<b>OR</b>				
2(a)	Make use of python code and explain how to retrieve web pages with urllib.	6	CO5	K3
(b)	Develop a python code for parsing XML and explain.	6	CO5	K3
(c)	Identify the advantages of Service Oriented Architecture and explain the concept.	6	CO5	K3
<b>PART-B</b>				
3 (a)	Make use of a python program to explain <code>str_method</code> .	6	CO4	K3
(b)	Make use of Python code to explain the polymorphic functions.	6	CO4	K3
<b>OR</b>				
4 (a)	Develop a python code to overload "+", and "*" operator by the methods <code>add</code> and <code>mul</code> .	6	CO4	K3
(b)	Identify the difference in working of pure functions and modifiers with python codes and explain.	6	CO4	K3

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**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**THIRD INTERNAL TEST QUESTION PAPER 2022-23 EVEN SEMESTER**

**SET - A**

**SCHEME AND SOLUTION**

<b>Degree</b>	<b>:</b>	<b>B. E</b>	<b>Semester :</b>	<b>VI</b>
<b>Branch</b>	<b>:</b>	<b>Electronics &amp; Communication Engg.</b>	<b>Course Code :</b>	<b>18EC646</b>
<b>Course Title</b>	<b>:</b>	<b>Python Application Programming</b>	<b>Max Marks :</b>	<b>30</b>

Q.NO.	POINTS	MARKS
1.(a)	<p><b>Retrieve an image over HTTP</b></p> <p><b>Program:</b></p> <pre>import socket import time HOST = 'data.pr4e.org' PORT = 80 mysock = socket.socket(socket.AF_INET, socket.SOCK_STREAM) mysock.connect((HOST, PORT)) mysock.sendall(b'GET http://data.pr4e.org/cover3.jpg HTTP/1.0\r\n\r\n') count = 0 picture = b"" while True:     data = mysock.recv(5120)     if len(data) &lt; 1: break     time.sleep(0.25)     count = count + len(data)     print(len(data), count)     picture = picture + data mysock.close() pos = picture.find(b"\r\n\r\n") print('Header length', pos) print(picture[:pos].decode()) picture = picture[pos+4] fhand = open("stuff.jpg", "wb") fhand.write(picture) fhand.close()</pre>	6M
(b)	<p><b>Parsing Json</b></p> <p><b>Program:</b></p> <pre>import json data = "[{ \"id\" : \"001\", \"x\" : \"2\", \"name\" : \"Chuck\"} , { \"id\" : \"009\", \"x\" : \"7\", \"name\" : \"Brent\"}]" info = json.loads(data)</pre>	6M

	<pre> print('User count:', len(info)) for item in info:     print('Name', item['name'])     print('Id', item['id'])     print('Attribute', item['x']) </pre>	
(c)	<p>Explanation on SQL cursor architecture to connect, execute, and close command of databases</p> <p>Example:</p> <pre> import sqlite3 conn = sqlite3.connect('music.sqlite') cur = conn.cursor() cur.execute('DROP TABLE IF EXISTS Tracks') cur.execute('CREATE TABLE Tracks (title TEXT, plays INTEGER)') cur.execute('INSERT INTO Tracks (title, plays) VALUES (?, ?)', ('Thunderstruck', 20)) cur.execute('INSERT INTO Tracks (title, plays) VALUES (?, ?)', ('My Way', 15)) conn.commit() print('Tracks:') cur.execute('SELECT title, plays FROM Tracks') for row in cur:     print(row) cur.execute('DELETE FROM Tracks WHERE plays &gt; 17') conn.commit() for row in cur:     print(row) conn.commit() cur.close() conn.close() <b>Fig</b> </pre>	<b>2M+4M</b>
2.(a)	<ul style="list-style-type: none"> <li>Using urllib, a web page is treated much like a file. On indicating which web page to retrieve and urllib handles all of the HTTP protocol and header details.</li> <li>Once the web page has been opened with urllib.urlopen, it can be treated like a file and read through it using a for loop.</li> <li>When the program runs, only the output of the contents of the file are seen. The headers are still sent, but the urllib code consumes the headers and only returns the data.</li> </ul> <p>Program:</p> <pre> import urllib.request fhand = urllib.request.urlopen('http://data.pr4e.org/romeo.txt') for line in fhand:     print(line.decode().strip()) </pre>	<b>3M+3M</b>

6M

2M+4M

Parsing XML Program:  
import xml.etree.ElementTree as ET  
input = "

```

<stuff>
  <users>
    <user id="001">
      <name>Chuck</name>
    </user>
    <user id="009">
      <name>Brent</name>
    </user>
  </users>
</stuff>
```

input

=

for item in list

print(item)

print(item.id)

print(item.name)

print(item.text)

print(item.getAttribute("text"))

print(item.getAttribute("id"))

print(item.getAttribute("name"))

print(item.getAttribute("text"))

print(item.getAttribute("userCount"))

print(item.getAttribute("name"))

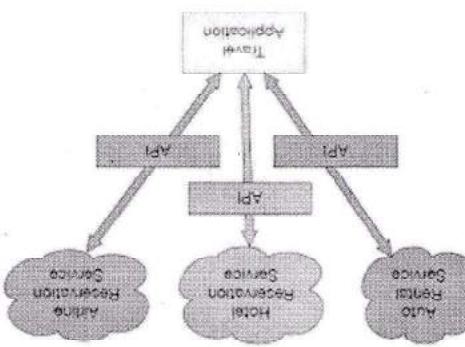
print(item.getAttribute("text"))

print(item.getAttribute("id"))

print(item.getAttribute("name"))

print(item.getAttribute("text"))

of the data can set the rules about the use of their data.

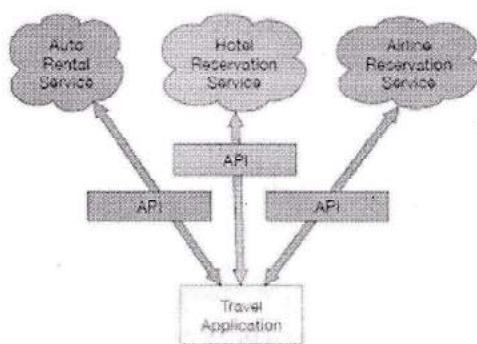


- Application Programming Interfaces (APIs): When we use an API, generally one program makes a set of services available for use by other applications and publishes the APIs (i.e., the "rules") that must be followed to access the services provided by the program.
- When an application makes a set of services in its API available over the web, we call these web services.
- Service-oriented architecture has many advantages, including: (1) always our overall application makes use of the services of other applications. A service-oriented architecture is one where the owners of hotel reservations where we do not want to over-commit) and (2) the owners maintain only one copy of data (this is particularly important for things like Service-oriented architecture has many advantages, including: (1) always our overall application makes use of the services of other applications. A service-oriented architecture is one where the owners of hotel reservations where we do not want to over-commit) and (2) the owners maintain only one copy of data (this is particularly important for things like

(b)

(c)

(b)	<p><b>Parsing XML Program:</b></p> <pre> import xml.etree.ElementTree as ET input = "" &lt;stuff&gt;     &lt;users&gt;         &lt;user x="2"&gt;             &lt;id&gt;001&lt;/id&gt;             &lt;name&gt;Chuck&lt;/name&gt;         &lt;/user&gt;         &lt;user x="7"&gt;             &lt;id&gt;009&lt;/id&gt;             &lt;name&gt;Brent&lt;/name&gt;         &lt;/user&gt;     &lt;/users&gt; &lt;/stuff&gt;"' stuff = ET.fromstring(input) lst = stuff.findall('users/user') print('User count:', len(lst)) for item in lst:     print('Name', item.find('name').text)     print('Id', item.find('id').text)     print('Attribute', item.get('x')) </pre>	6M
(c)	<ul style="list-style-type: none"> <li>Application Program Interfaces (APIs): When we use an API, generally one program makes a set of services available for use by other applications and publishes the APIs (i.e., the “rules”) that must be followed to access the services provided by the program.</li> <li>When an application makes a set of services in its API available over the web, we call these web services.</li> <li>Service-oriented architecture (SOA). A SOA approach is one where our overall application makes use of the services of other applications. A Service-oriented architecture has many advantages, including: (1) always maintain only one copy of data (this is particularly important for things like hotel reservations where we do not want to over-commit) and (2) the owners of the data can set the rules about the use of their data.</li> </ul>	2M+4M



	3.(a)  Str method : Purpose-1M Definition using example program -2M Calling method using example program-2M Output-1M	6M
(b)	Polymorphic Function : Purpose-1M Definition using example program -2M Calling method using example program-2M Output-1M	6M
4(a)	methods __add__ and __mul__ (3M+3M) Definition using example program -2M Calling method using example program-2M Output-1M	6M
(b)	pure functions and modifiers (3M +3M) Definition using example program -2M Calling method using example program-2M Output-1M	6M



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**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**THIRD INTERNAL TEST QUESTION PAPER 2022 – 23 EVEN SEMESTER**

**SET: B**

Degree : B. E  
 Branch : ECE  
 Course Title : Python Application Programming  
 Duration : 90 Minutes

USN	I	K	S	2	0	E	C	0	6	9
Semester	:	VI	A & B							
Course Code	:	18EC646								
Date	:	4-07-2023								
Max Marks	:	30								

**Note: Answer ONE full question from each part.**

**K-Levels: K1-Remebering, K2-Understanding, K3-Applying, K4-Analyzing, K5-Evaluating, K6-Creating**

Q No.	Question	Marks	CO mapping	K-Level
<b>PART-A</b>				
1(a)	Identify how socket connection can be established to the internet using python code over the TCP/IP connection and the http protocol to get the web document.	6	CO5	K3
(b)	Identify the differences between JavaScript object Notation (JSON) and XML.	6	CO5	K3
(c)	Make use of cursor architecture and an example program to create of database table.	6	CO5	K3
<b>OR</b>				
2(a)	Make use of urllib to write a python code to read the file from web and to retrieve the data of the file. Also compute the frequency of each word in the file.	6	CO5	K3
(b)	Model a python program to retrieve a node present in XML tree using example program	6	CO5	K3
(c)	Develop a Python code to support for parsing HTML using regular expression.	6	CO5	K3
<b>PART-B</b>				
3 (a)	Make use of a python code to explain how <u>__int__</u> method is invoked when an object is initiated.	6	CO4	K3
(b)	Make use of a python code to explain pure functions and explain.	6	CO4	K3
<b>OR</b>				
4 (a)	Make use of python code to explain the concept of operator overloading.	6	CO4	K3
(b)	Make use of a python code to explain Modifier functions and explain.	6	CO4	K3

Course In charge

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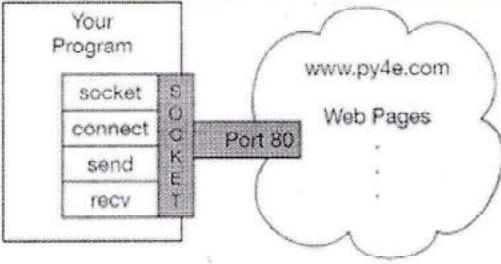


**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**THIRD INTERNAL TEST QUESTION PAPER 2022-23 EVEN SEMESTER**

SET - B

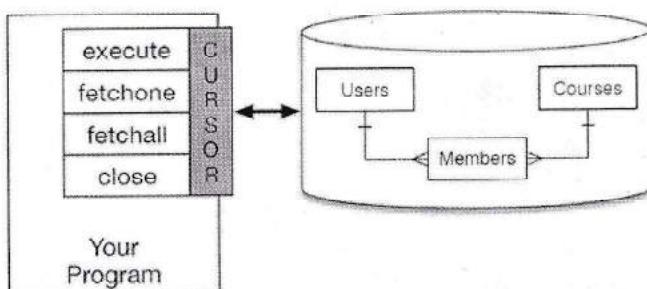
**SCHEME AND SOLUTION**

Degree	: B. E	Semester :	VI
Branch	: Electronics & Communication Engg	Course Code :	18EC646
Course Title	: Python Application Programming	Max Marks :	30

Q.NO.	POINTS		MARKS									
1.(a)	 <pre> import socket mysock = socket.socket(socket.AF_INET, socket.SOCK_STREAM) mysock.connect(('data.pr4e.org', 80)) cmd = 'GET http://data.pr4e.org/romeo.txt HTTP/1.0\r\n\r\n'.encode() mysock.send(cmd) while True:     data = mysock.recv(512)     if len(data) &lt; 1:         break     print(data.decode(),end='') mysock.close() </pre>		6M									
(b)	<table border="1" data-bbox="367 1425 1183 1742"> <tr> <td></td> <td>XML (eXtensible Markup Language)</td> <td>JSON (JavaScript Object Notation )</td> </tr> <tr> <td>1</td> <td>In XML, we can add attributes like "intl" to the "phone" tag.</td> <td>In JSON, we simply have key-value pairs</td> </tr> <tr> <td>2</td> <td>XML includes tags like "person"</td> <td>In JSON, tags are replaced by a set of outer curly braces.</td> </tr> </table>		XML (eXtensible Markup Language)	JSON (JavaScript Object Notation )	1	In XML, we can add attributes like "intl" to the "phone" tag.	In JSON, we simply have key-value pairs	2	XML includes tags like "person"	In JSON, tags are replaced by a set of outer curly braces.		6M
	XML (eXtensible Markup Language)	JSON (JavaScript Object Notation )										
1	In XML, we can add attributes like "intl" to the "phone" tag.	In JSON, we simply have key-value pairs										
2	XML includes tags like "person"	In JSON, tags are replaced by a set of outer curly braces.										

	3	XML is complex than JSON	JSON structures are simpler than XML	
	4	XML has more capabilities than JSON	JSON has fewer capabilities than XML	
	4	It has start and end tags.	It doesn't use end tag.	
	5	It supports namespaces.	It does not provide any support for namespaces.	
	6	It doesn't support array.	It supports array.	

(c)

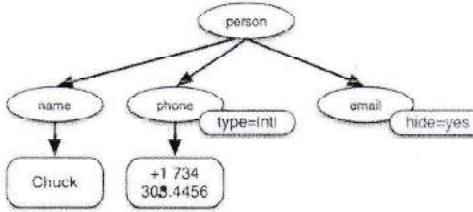


2M+4M

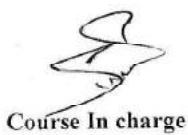
### **Program:**

```
import sqlite3
conn = sqlite3.connect('music.sqlite')
cur = conn.cursor()
cur.execute('DROP TABLE IF EXISTS Tracks')
cur.execute('CREATE TABLE Tracks (title TEXT, plays INTEGER)')
cur.execute('INSERT INTO Tracks (title, plays) VALUES (?, ?, ?)', ('Thunderstruck', 20))
cur.execute('INSERT INTO Tracks (title, plays) VALUES (?, ?, ?)', ('My Way', 15))
conn.commit()
print('Tracks:')
cur.execute('SELECT title, plays FROM Tracks')
for row in cur:
    print(row)
cur.execute('DELETE FROM Tracks WHERE plays > 17')
conn.commit()
for row in cur:
    print(row)
conn.commit()
cur.close()
conn.close()
```

3M+3M

2.(a)	<p><b>To retrieve web pages with urllib</b></p> <pre>import urllib.request fhand = urllib.request.urlopen('http://data.pr4e.org/romeo.txt') for line in fhand:     print(line.decode().strip())</pre> <p><b>Compute the frequency of each word in the file</b></p> <pre>import urllib.request fhand = urllib.request.urlopen('http://data.pr4e.org/romeo.txt') counts = dict() for line in fhand:     words = line.decode().split()     for word in words:         counts[word] = counts.get(word, 0) + 1 print(counts)</pre>	3M+3M
(b)	 <pre>import xml.etree.ElementTree as ET data = "" &lt;person&gt;     &lt;name&gt;Chuck&lt;/name&gt;     &lt;phone type="intl"&gt;         +1 734 303 4456     &lt;/phone&gt;     &lt;email hide="yes" /&gt; &lt;/person&gt;"' tree = ET.fromstring(data) print('Name:', tree.find('name').text) print('Attr:', tree.find('email').get('hide')) print('Attr:', tree.find('phone').get('type'))</pre>	2M+4M
(c)	<p>Program:</p> <pre># Search for link values within URL input import urllib.request, urllib.parse, urllib.error import re import ssl # Ignore SSL certificate errors ctx = ssl.create_default_context() ctx.check_hostname = False ctx.verify_mode = ssl.CERT_NONE url = input('Enter - ') html = urllib.request.urlopen(url, context=ctx).read()</pre>	6M

	<pre>links = re.findall(b'href="(http[s]?://.*?)"', html) for link in links:     print(link.decode())</pre> <p>3.(a)</p> <p><u>Str method</u> : Purpose-1M  Definition using example program -2M  Calling method using example program-2M  Output-1M</p> <p>(b)</p> <p>Pure functions  Definition using example program -2M  Calling method using example program-2M  Output-1M</p> <p>4 (a)</p> <p><u>methods __add__ or __mul__</u>.  Definition using example program -2M  Calling method using example program-2M  Output-1M</p> <p>(b)</p> <p>Modifier Function  Definition using example program -2M  Calling method using example program-2M  Output-1M</p>	<b>6M</b>
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Course In charge



Module Coordinator



HOD ECE



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**FIRST INTERNAL TEST QUESTION PAPER 2022-23 EVEN SEMESTER**

SET - B

**SCHEME AND SOLUTION**

Degree : B. E Semester : VI  
Branch : Electronics & Communication Eng. Course Code : 18EC646  
Course Title : Python Application Programming Max Marks : 30

Q.NO.	POINTS	MARKS
1.(a)	<p>Any 3 functions:</p> <p>Ex:</p> <pre>stuff = list() &gt;&gt;&gt; stuff.append('book') &gt;&gt;&gt; stuff.append(99) &gt;&gt;&gt; print(stuff) ['book', 99]  &gt;&gt;&gt; friends = [ 'Joseph', 'Glenn', 'Sally'] &gt;&gt;&gt; friends.sort() &gt;&gt;&gt; print(friends) ['Glenn', 'Joseph', 'Sally']</pre>	<b>6M</b>
(b)	<p>Tuples are another kind of sequence that functions much like a list - they have elements which are indexed starting at 0.</p> <pre>&gt;&gt;&gt; x = ('Glenn', 'Sally', 'Joseph') &gt;&gt;&gt; print(x[2]) Joseph &gt;&gt;&gt; y = (1, 9, 2) &gt;&gt;&gt; print(y) (1, 9, 2) &gt;&gt;&gt; print(max(y)) 9</pre> <p><b>Tuples and assignment</b></p> <pre>&gt;&gt;&gt; (x, y) = (4, 'fred') &gt;&gt;&gt; print(y) fred</pre>	<b>2M+2M+2M</b>

	<p><b>Tuples and Dictionaries</b></p> <pre>&gt;&gt;&gt; d = dict() &gt;&gt;&gt; d['csev'] = 2 &gt;&gt;&gt; d['cwen'] = 4 &gt;&gt;&gt; tups = list(d.items()) &gt;&gt;&gt; print(tups) [('csev', 2), ('cwen', 4)]</pre>	
(c)	<pre>numlist = list() while True :     inp = input('Enter a number: ')     if inp == 'done' : break     value = float(inp)     numlist.append(value)  average = sum(numlist) / len(numlist) print('Average:', average)</pre>	6M
2.(a)	<p><b>List Traversing</b></p> <pre>friends = ['Joseph', 'Dravid', 'Dhoni'] for friend in friends :     print('Happy New Year:', friend) print('Done!')</pre> <p><b>List Slicing</b></p> <pre>&gt;&gt;&gt; t = [9, 41, 12, 3, 74, 15] &gt;&gt;&gt; t[1:3] [41,12] &gt;&gt;&gt; t[:4] [9, 41, 12, 3] &gt;&gt;&gt; t[3:] [3, 74, 15] &gt;&gt;&gt; t[:] [9, 41, 12, 3, 74, 15]</pre>	3M+3M
(b)	<p><b>Dictionaries creation and Indexing</b></p> <pre>&gt;&gt;&gt; purse = dict() &gt;&gt;&gt; purse['money'] = 12</pre>	6M

	<p>1</p> <p>c.</p> <pre>&gt;&gt;&gt; line = ' Here we go ' &gt;&gt;&gt; line.strip() 'Here we go'</pre> <p>d.</p> <pre>&gt;&gt;&gt; line = 'Have a nice day' &gt;&gt;&gt; line.startswith('Have') True</pre> <p>e.</p> <pre>&gt;&gt;&gt; line = 'Have a nice day' &gt;&gt;&gt; line.lower() 'have a nice day' &gt;&gt;&gt; line.lower().startswith('h') True</pre> <p>f.</p> <pre>&gt;&gt;&gt; greet = 'Hello Bob' &gt;&gt;&gt; nstr = greet.replace('Bob','Jane') &gt;&gt;&gt; print(nstr) Hello Jane</pre>	6M
(b)	<p>Shallow equality: If the two variables refer to the same object. Compares only the references, not the contents of the objects. To find out if two references refer to the same object, use the <code>==</code> operator.</p> <p>EXAMPLE:</p> <pre>class Point:     pass &gt;&gt;&gt; p1 = Point() &gt;&gt;&gt; p1.x = 3 &gt;&gt;&gt; p1.y = 4 &gt;&gt;&gt; p2 = Point() &gt;&gt;&gt; p2.x = 3 &gt;&gt;&gt; p2.y = 4 &gt;&gt;&gt; p1 == p2 False</pre> <p>Even though p1 and p2 contain the same coordinates, they are not the same object. If we assign p1 to p2, then the two variables are aliases of the same object:</p>	1M+2M+2M+1M

```

>>> p3 = p1
>>> p1 == p3
True
Deep equality: If objects have same contents.
If the two variables refer to the same object, they have both shallow
and deep equality.
Example: Function definition to verify deep equality:
def samePoint(p1, p2):
    return (p1.x == p2.x) and (p1.y == p2.y)
samePoint(p2, p2)
OUTPUT: True
#Explanation about every command

```

Functions can return instances. For example, `find_center` takes a `Rectangle` as an argument and returns a `Point` that contains the coordinates of the center of the `Rectangle`:

```

def find_center(rect):
    p = Point()
    p.x = rect.corner.x + rect.width/2
    p.y = rect.corner.y + rect.height/2
    return p

>>> center = find_center(box)
>>> print_point(center)
(50, 100)

```

4.(a)

### File Open

Before we can read the contents of the file, we must tell Python which file we are going to work with and what we will be doing with the file. This is done with the `open()` function. `open()` returns a "file handle"

6M

### File Read

A file handle open for read can be treated as a sequence of strings where each line in the file is a string in the sequence

Use the `for` statement to iterate through a sequence.

Example:

```

>>> fhand = open('mbox-short.txt')
>>> inp = fhand.read()
>>> print(len(inp))
94626

```

	<p><b>File Write</b></p> <p>The write method of the file handle object puts data into the file, returning the number of characters written. The default write mode is text for writing (and reading) strings.</p> <p>Example</p> <pre>&gt;&gt;&gt; line1 = "This here's the wattle,\n" &gt;&gt;&gt; fout.write(line1) 24</pre> <p><b>File Close</b></p> <p>When you are done writing, you have to close the file to make sure that the last bit of data is physically written to the disk so it will not be lost if the power goes off.</p> <pre>&gt;&gt;&gt; fout.close()</pre> <p>(b)</p> <pre>class Rectangle:     """Represents a rectangle.     attributes: width, height, corner.     """     Instantiate a Rectangle object and assign values to the attributes:     box = Rectangle()     box.width = 100.0     box.height = 200.0     box.corner = Point()     box.corner.x = 0.0     box.corner.y = 0.0     The expression box.corner.x means, "Go to the object box refers to and select the attribute named corner; then go to that object and select the attribute named x."</pre>	
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Course In charge

Module Coordinator

HOD ECE

Semester / Sec : VI/ A & B  
Dept / Branch : ECE

Subject Code : 18EC646  
Subject : PYTHON APPLICATION PROGRAMMING

Sl.No	SEC	USN	NAME	A1	A2	A3	Avg A Marks (10)	IA1	IA2	IA3	Avg IA marks (30)	Total Marks(40)
1	A	1KS19EC026	ERAM FATHIMA	10	10	10	10	21	26	10	19	29
2	A	1KS19EC034	HIMA SWETHA S	10	10	10	10	26	29	22	26	36
3	A	1KS20EC001	ABHISHEK J	10	10	10	10	26	17	17	20	30
4	A	1KS20EC002	Aditi dubey	10	10	10	10	30	29	30	30	40
5	A	1KS20EC003	AFEEFA SHARIEFF	10	10	10	10	28	29	16	25	35
6	A	1KS20EC004	Ajay B G	10	10	10	10	23	27	18	23	33
7	A	1KS20EC006	Akash M	10	6	10	9	23	24	18	22	31
8	A	1KS20EC008	B.S.HEMA SHREE	10	10	10	10	15	25	22	21	31
9	A	1KS20EC009	BHARATH M	5	5	0	4	22	10	12	15	19
10	A	1KS20EC010	Bhavitha. B	10	10	10	10	18	30	16	22	32
11	A	1KS20EC011	Bhuvaneshwari k	10	10	10	10	25	26	21	24	34
12	A	1KS20EC012	Chaitanya k	10	10	10	10	24	18	14	19	29
13	A	1KS20EC013	CHAITHRA K	10	10	10	10	23	24	22	23	33
14	A	1KS20EC014	C. Sai Srujitha	10	4	10	8	29	21	20	24	32
15	A	1KS20EC015	C.Umadevi	10	10	10	10	28	24	20	24	34
16	A	1KS20EC016	Chaya. S	10	10	10	10	28	30	15	25	35
17	A	1KS20EC017	Chethan G	10	4	10	8	16	19	20	19	27
18	A	1KS20EC018	Chethankumar J	10	10	6	9	14	12	7	11	20
19	A	1KS20EC019	CHETHAN KUMAR T	8	6	10	8	22	17	11	17	25
20	A	1KS20EC020	DARSHAN K	10	6	10	9	22	29	18	23	32
21	A	1KS20EC021	DARSHAN KUMAR S	10	10	10	10	29	27	14	24	34
22	A	1KS20EC023	Dhamini. J	10	10	10	10	26	15	13	18	28
23	A	1KS20EC024	Dhruva Kumar S	10	10	5	9	19	21	19	20	29
24	A	1KS20EC025	Divya .N	10	10	10	10	21	27	17	22	32
25	A	1KS20EC026	Eshwar Biradar	10	10	8	10	18	15	15	16	26

26	A	1KS20EC027	G BHAVANA PRIYADARSHINI	10	10	10	10	29	30	20	27	37
27	A	1KS20EC028	Gagan.H.C	10	10	10	10	16	21	19	19	29
28	A	1KS20EC029	Gagana B S	10	10	10	10	21	30	9	20	30
29	A	1KS20EC030	Gandhamani C M	10	10	10	10	26	30	25	27	37
30	A	1KS20EC031	Gomitha R C	10	10	10	10	25	26	21	24	34
31	A	1KS20EC032	Harini k	10	10	9	10	23	24	17	22	32
32	A	1KS20EC033	Harshith gowda AR	10	10	7	9	19	24	24	23	32
33	A	1KS20EC034	Harshitha.B.L	10	10	10	10	24	25	19	23	33
34	A	1KS20EC035	Harshitha.J	10	10	10	10	21	26	25	24	34
35	A	1KS20EC036	HARSHITHA N	10	10	10	10	25	30	25	27	37
36	A	1KS20EC037	Inchara. P	10	10	10	10	21	29	11	21	31
37	A	1KS20EC038	Chaithanya krishna.J	10	10	10	10	16	25	15	19	29
38	A	1KS20EC039	Jamuna s g	10	10	10	10	23	30	22	25	35
39	A	1KS20EC040	Janhavi r	10	10	10	10	29	30	21	27	37
40	A	1KS20EC041	JAYANTH. H	10	10	10	10	26	24	24	25	35
41	A	1KS20EC042	K Jeevitha	10	10	10	10	29	28	24	27	37
42	A	1KS20EC043	K.M.Amshumanth	10	10	10	10	30	30	23	28	38
43	A	1KS20EC045	Kavana.G.S	10	5	8	8	17	18	10	15	23
44	A	1KS20EC046	Kavya S M	10	10	10	10	27	30	21	26	36
45	A	1KS20EC047	Keerthana BS	10	10	10	10	17	16	13	16	26
46	A	1KS20EC048	Kiran Dev D	10	10	10	10	26	24	23	25	35
47	A	1KS20EC049	KIRAN V NARAYAN	10	10	10	10	28	30	22	27	37
48	A	1KS20EC050	KODIDE LA. PRATHIMA	10	10	10	10	24	26	29	27	37
49	A	1KS20EC051	KUMAR K G	10	10	0	7	24	26	28	26	33
50	A	1KS20EC052	Kusuma VR	10	10	10	10	24	24	28	26	36
51	A	1KS20EC053	M.Archana	10	10	10	10	23	23	26	24	34
52	A	1KS20EC054	MADIHA	10	8	10	10	21	30	13	22	32
53	A	1KS20EC055	MAHESH BIRADAR	10	10	9	10	20	23	16	20	30
54	A	1KS20EC056	MANASWINI KM	10	10	10	10	15	20	24	20	30
55	A	1KS20EC057	Meghashree.M	10	10	10	10	28	28	29	29	39
56	A	1KS20EC058	MOHAN KRISHNA K	10	10	10	10	27	30	9	22	32
57	B	1KS20EC059	N.shreya	10	10	10	10	26	29	30	29	39

58	B	1KS20EC060	NALLANI GOWTHAMI	10	5	10	9	12	18	10	14	23
59	B	1KS20EC061	NEHA CR	10	10	10	10	22	30	22	25	35
60	B	1KS20EC062	NEHA NAGARAJ AIRANI	10	10	10	10	25	30	7	21	31
61	B	1KS20EC063	VASANTH Kumar	10	5	5	7	18	13	14	15	22
62	B	1KS20EC064	PAVAN.C	5	5	5	5	21	16	10	16	21
63	B	1KS20EC065	Pavani TS	10	10	10	10	22	27	17	22	32
64	B	1KS20EC066	Pradhyumna S Kashyap	10	10	8	10	23	29	21	25	35
65	B	1ks20ec067	Praveen D B	10	5	5	7	24	28	19	24	31
66	B	1KS20EC068	Prema G	10	10	10	10	28	29	29	29	39
67	B	1KS20EC069	PRIYANKA.H C	10	8	8	9	9	6	14	10	19
68	B	1KS20EC070	PRIYANKA K	10	10	10	10	29	27	15	24	34
69	B	1KS20EC071	Priyanka.M	10	6	10	9	24	30	20	25	34
70	B	1KS20EC072	Pushpa DT	10	10	7	9	15	15	6	12	21
71	B	1KS20EC073	RAHUL KRISHNAN V	10	10	10	10	22	28	18	23	33
72	B	1KS20EC074	RAHUL R	10	4	10	8	17	14	3	12	20
73	B	1KS20EC075	RAJATH K ACHAR	10	10	8	10	24	27	22	25	35
74	B	1KS20EC076	Rakshith NM	10	10	10	10	15	26	18	20	30
75	B	1KS20EC077	RAKSHITH.R	10	10	10	10	22	29	22	25	35
76	B	1KS20EC078	Rakshitha A	10	8	10	10	26	29	27	28	38
77	B	1KS20EC079	RAMESHWAR	10	8	10	10	18	18	19	19	29
78	B	1KS20EC080	Ramya T	10	10	8	10	20	26	25	24	34
79	B	1KS20EC082	Rohit A.k	10	10	10	10	12	5	10	9	19
80	B	1KS20EC083	S Arun Kumar	10	10	10	10	20	28	21	23	33
81	B	1KS20EC084	Sachin NM	10	10	10	10	7	16	12	12	22
82	B	1KS20EC085	SADHANA.SRINIVAS	10	10	10	10	22	28	17	23	33
83	B	1KS20EC087	Sandeep Y H	10	10	10	10	20	23	18	21	31
84	B	1KS20EC089	Sanjana.G	10	10	10	10	29	28	23	27	37
85	B	1KS20EC091	Sanjana T Gadikar	10	10	8	10	24	20	19	21	31
86	B	1KS20EC092	Shakthi Anbazhagan M	10	10	10	10	26	30	26	28	38
87	B	1KS20EC093	Sharath M	10	10	10	10	23	29	19	24	34
88	B	1KS20EC094	SHASHANK S	10	10	10	10	23	27	18	23	33
89	B	1KS20EC095	SHIVAREDDY B A	10	10	10	10	22	22	26	24	34

90	B	1KS20EC096	Shreya H Padmanabha	10	10	10	10	23	30	23	26	36
91	B	1KS20EC097	Shreyas M S	10	10	10	10	18	25	10	18	28
92	B	1KS20EC098	Shreyas p s rao	10	10	10	10	15	22	17	18	28
93	B	1KS20EC099	SHWETA DEEPAK K	10	10	10	10	24	30	22	26	36
94	B	1KS20EC101	SONIKA.R	10	10	10	10	28	28	17	25	35
95	B	1KS20EC102	SUMANA N	10	10	10	10	29	30	24	28	38
96	B	1KS20EC103	SUMUKHA.S	10	10	7	9	22	29	16	23	32
97	B	1KS20EC104	SURAKSHA.N	10	10	10	10	28	30	30	30	40
98	B	1KS20EC105	Tarun Prasanna	10	10	10	10	25	28	22	25	35
99	B	1KS20EC106	TEJAS N REDDY	10	5	0	5	21	16	17	18	23
100	B	1KS20EC107	T.GIRISHCHOWDARY	10	10	10	10	13	22	7	14	24
101	B	1KS20EC108	Uday C H	10	10	10	10	29	30	23	28	38
102	B	1KS20EC109	UJJWAL NAIDU	10	10	10	10	17	21	14	18	28
103	B	1KS20EC110	VAISHNAVI A	10	10	10	10	24	28	28	27	37
104	B	1KS20EC111	Vaishnavi.V.H	10	10	10	10	22	25	22	23	33
105	B	1KS20EC112	N Varsha	10	10	9	10	25	30	18	25	35
106	B	1KS20EC113	Vijayalakshmi K	10	10	10	10	23	25	18	22	32
107	B	1KS20EC114	VINAY S P	10	10	10	10	19	30	23	24	34
108	B	1KS20EC115	VINAY SAGAR V ALUR	10	9	10	10	9	16	8	11	21
109	B	1KS20EC116	VINEETH M S	10	10	8	10	21	23	12	19	29
110	B	1KS20EC117	YASHILAA.S	10	10	10	10	24	29	A	18	28
111	B	1KS20EC118	YASHWANTH Y	10	10	8	10	23	30	26	27	37
112	B	1KS21EC401	SUDEEP V	10	5	5	7	10	7	17	12	19

## K. S. INSTITUTE OF TECHNOLOGY

#14, Raghuvanahalli, Kanakapura Main Road, Bengaluru-5600109

### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

2022-23 EVEN SEMESTER

List of students who are identified as slow learners and their marks in every internal

Subject and Subject Code: Python Application Programming/18EC646

Semester and Section: VI /A & B

Sl. No	USN	NAME	First Test Marks (30)	Remedial Class Dates & Attendance		Improvem ent Test Marks (30)	Second Test Marks (30)	Remedial Class Dates & Attendance		Improve ment Test Marks (30)	Third Test Marks (30)	Improveme nt Test Marks (30)	FINAL (30)
				27/4/23	5/5/23			14/6/23	22/6/23				
01	1KS20EC001	ABHISHEK J	11	P	P	26	17	P	P	-	17	-	20
02	1KS20EC014	C. Sai Srijitha	12	P	P	29	21	P	P	-	20	-	24
03	1KS20EC018	Chethankumar J	14	P	P	AB	7	P	P	12	7	-	11
04	1KS20EC032	Harini k	13	P	P	23	24	P	P	-	17	-	22
05	1KS20EC036	HARSHITHA N	AB	P	P	25	30	P	P	-	25	-	27
06	1KS20EC047	Keerthana BS	10	P	P	17	16	P	P	-	13	-	16
07	1KS20EC056	MANASWINI KM	14	P	P	15	20	P	P	-	24	-	20
08	1KS20EC060	NALLANI GOWTHAMI	12	P	P	AB	9	P	P	18	10	-	14
09	1KS20EC063	Vasant Kumar	4	P	P	18	13	P	P	-	14	-	15
10	1KS20EC064	PAVAN.C	5	P	P	21	16	P	P	-	10	-	16
11	1KS20EC065	Pavani TS	13	P	P	22	27	P	P	-	17	-	22
12	1KS20EC067	Praveen D B	9	P	P	24	28	P	P	-	19	-	24

13	1KS20EC069	PRIYANKA.H C	5	P	P	9	6	P	P	-	14	-	10
14	1KS20EC072	Pushpa DT	AB	P	P	15	15	P	P	-	G	-	12
15	1KS20EC082	Rohit A.k	0	P	P	12	5	P	P	-	10	-	9
16	1KS20EC084	Sachin NM	8	P	P	7	16	P	P	-	12	-	12
17	1KS20EC094	SHASHANK S	9	P	P	23	27	P	P	-	18	-	23
18	1KS20EC098	Shreyas p s rao	12	P	P	15	22	P	P	-	17	-	18
19	1KS20EC106	TEJAS N REDDY	11	P	P	21	16	P	P	-	17	-	18
20	1KS20EC107	T. GIRISH CHOWDARY	13	P	P	13	22	P	P	-	7	-	14
21	1KS20EC115	VINAY SAGAR V ALUR	9	P	P	AB	16	P	P	-	8	-	11
22	1KS21EC401	SUDEEP V	7	P	P	10	7	P	P	-	17	-	12



Signature of the Faculty



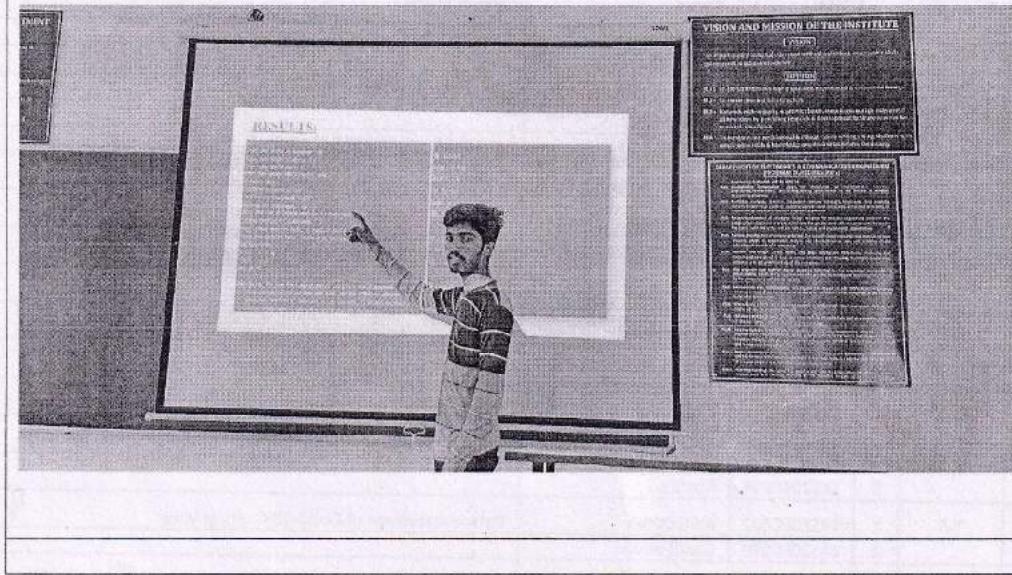
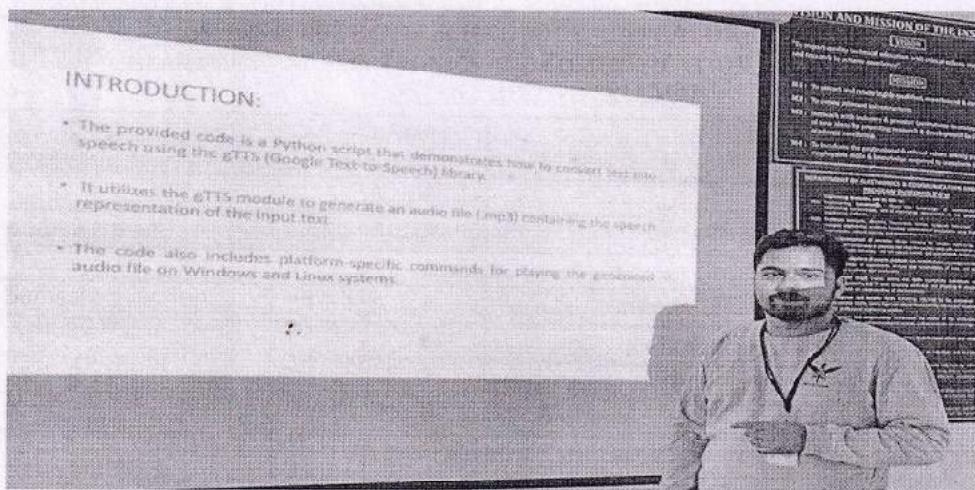
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**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**CONTENT BEYOND SYLLABUS**

<b>Academic Year</b>	2022-23 (Even)
<b>Name of the Faculty</b>	Dr. Surekha Borra
<b>Course Name /Code</b>	Python Application Programming/18EC646
<b>Semester/Section</b>	VI/A & B
<b>Activity Name</b>	Poster Presentations
<b>Topic Covered</b>	All Modules
<b>Date</b>	25/3/2023 to 30/06/23
<b>No. of Participants</b>	105
<b>Relevant PO's</b>	9,10,12

**Proofs (Photographs/Videos/Reports/Charts/Models)**



Sl. No	Details	Date
1.	Date of issue of topics for presentation	25/3/23
2.	Dates for Appeal/challenge (on or before)	28/3/23
3.	Last date for the submission of the Project Code	8/6/23
4.	Last date for Demo Presentation	10/6/23
5.	Date of announcement of evaluation	30/6/23

Note:

1. Projects should be helpful to society
2. Assignments marks will not be given if submitted on later dates or failed to present a seminar/demo.

#### Rubrics/Evaluation Strategy

Sl. No	Criteria	Marks
1.	Results	10
2.	Quality of Team Demo	5
3.	Quality of Code	5
4.	Usefulness to society/environment	5
5.	Individual Contribution to Project	5
6.	Individual Contribution to Report	5
7.	Tool Learning	5
<b>Total</b>		<b>40 (Scale the Marks to 10)</b>

Sl.No.	Team No.	USN	Name	Title of Project
1	T-1	1	1KS20EC036	HARSHITHA. N
2		2	1KS20EC034	HARSHITHA. BL
3		3	1KS20EC035	HARSHITHA. J
4		4	1KS20EC032	HARINI K
5	T-2	1	1KS20EC025	Divya.N
6		2	1KS20EC023	Dhamini.J.Naidu
7		3	1KS20EC010	Bhavitha.B
8	T-3	1	1KS20EC015	C. Umadevi
9		2	1KS20EC050	K. Prathima
10		3	1KS19EC026	Eram Fathima
11		4	1KS20EC060	N.Gouthami
12	T-4	1	1KS20EC042	K Jeevitha
13		2	1KS20EC046	Kavya S M
14		3	1KS20EC054	Madiha
15	T-5	1	1KS20EC002	Aditi Dubey
16		2	1KS20EC030	Gandhamani
17		3	1KS20EC057	Meghashree
18	T-6	1	1KS20EC053	M.Archana
19		2	1KS20EC047	Keerthana.b.s

20		<b>3</b>	1KS20EC014	C.Sai Srujitha	
21		<b>4</b>	1KS20EC038	J.Chaithanya Krishna	
22	T-7	<b>1</b>	1KS20EC039	JAMUNA SG	Employees number tracking
23		<b>2</b>	1KS20EC040	JANHAVI R	
24		<b>3</b>	1KS20EC056	MANASWINI KM	
25	T-8	<b>1</b>	1KS20EC077	Rakshith R	Language Translator using Python
26		<b>2</b>	1KS20EC093	Sharath M	
27		<b>3</b>	1KS20EC108	Uday C H	
28		<b>4</b>	1KS20EC098	Shreyas P S Rao	
29	T-9	<b>1</b>	1KS19EC034	Hima swetha	Health and Fitness Calculator
30		<b>2</b>	1KS20EC008	Bs. Hema shree	
31		<b>3</b>	1KS20EC013	Chaitra k	
32	T-10	<b>1</b>	1KS20EC070	Priyanka K	ATM Simulation
33		<b>2</b>	1KS20EC083	S Arun kumar	
34		<b>3</b>	1KS20EC085	Sadhana srinivas	
35		<b>4</b>	1KS20EC092	Shakthi Anbazhagan M	
36	T-11	<b>1</b>	1KS20EC001	Abhishek J	Object Weight Calculation
37		<b>2</b>	1KS20EC017	Chetan G	
38		<b>3</b>	1KS20EC018	Chetan Kumar J	
39		<b>4</b>	1KS20EC019	Chetan Kumar T	
40	T-12	<b>1</b>	1KS20EC111	VAISHNAVI VH	QR CODE GENERATOR USING PYTHON
41		<b>2</b>	1KS20EC113	VIJAYALAKSHMI K	
42		<b>3</b>	1KS20EC117	YASHILAA S	
43	T-13	<b>1</b>	1KS20EC026	Eshwar Biradar	Make a clock using python programming
44		<b>2</b>	1KS20EC048	Kiran Dev D	
45		<b>3</b>	1KS20EC052	Kusuma V R-	
46		<b>4</b>	1KS20EC055	Mahesh Biradar	
47	T-14	<b>1</b>	1KS20EC062	NEHA NAGARAJ AIRANI	Password Compliance Checker
48		<b>2</b>	1KS20EC112	N Varsha	
49		<b>3</b>	1KS20EC080	Ramya T	
50	T-15	<b>1</b>	1KS20EC073	Rahul Krishnan V	Python Weather Forecasting
51		<b>2</b>	1KS20EC103	Sumukha S	
52		<b>3</b>	1KS20EC105	Tarun Prasanna	
53		<b>4</b>	1KS20EC106	Taejas N Reddy	
54	T-16	<b>1</b>	1KS20EC084	Sachin NM	Air Quality index Tracker
55		<b>2</b>	1KS20EC087	Sandeep YH	
56		<b>3</b>	1KS20EC109	Ujjwal Naidu	
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60		3	1KS20EC094	Shashank S	
61		4	1KS20EC097	Shreyas MS	
62	T-18	1	1KS20EC043	Amshumanth.k.m	TEXT TO SPEECH CONVERTER
63		2	1KS20EC049	Kiran v narayan	
64		3	1KS20EC051	Kumar kg	
65		4	1KS20EC058	Mohan krishna	
66	T-19	1	1KS20EC059	N Shreya	Generation of Contact Book
67		2	1KS20EC076	Rakshith NM	
68		3	1KS20EC101	Sonika R	
69		4	1KS20EC104	Suraksha N	
70	T-20	1	1KS20EC066	Pradhyumna SK	Daily Expenses Entry
71		2	1KS20EC075	Rajath KA	
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75		2	1KS20EC065	Pavani TS	
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81		4	1KS20EC041	Jayanth H	
82	T-23	1	1KS20EC004	Ajay BG	Expenses Tracker GUI with Calender
83		2	1KS20EC006	Akash M	
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88	T-25	1	1KS20EC095	Shiva Reddy	Movie ticket booking system
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90		3	1KS20EC099	Shweta Deepak	
91	T-26	1	1KS20EC089	Sanjana G	Morse code translator
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94		4	1KS20EC110	Vaishnavi A	
95	T-27	1	1KS20EC107	T Girish Chowdary	Donation Tracker
96	T-28	1	1KS20EC037	Inchara P	Income Tax Calculation
97		2	1KS20EC029	Gagana BS	
98	T-29	1	1KS20EC003	Afeefa	Donation Report Generator
99		2	1KS20EC011	Bhuvaneshwari	
100		3	1KS20EC012	Chaitanya	
101		4	1KS20EC020	Darshan K	
102	T-30	1	1KS20EC074	Rahul r	Youtube mp4 downloader
103		2	1KS20EC078	Rakshitha a	
104		3	1KS20EC082	Rohit a k	
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Signature of Course In charge

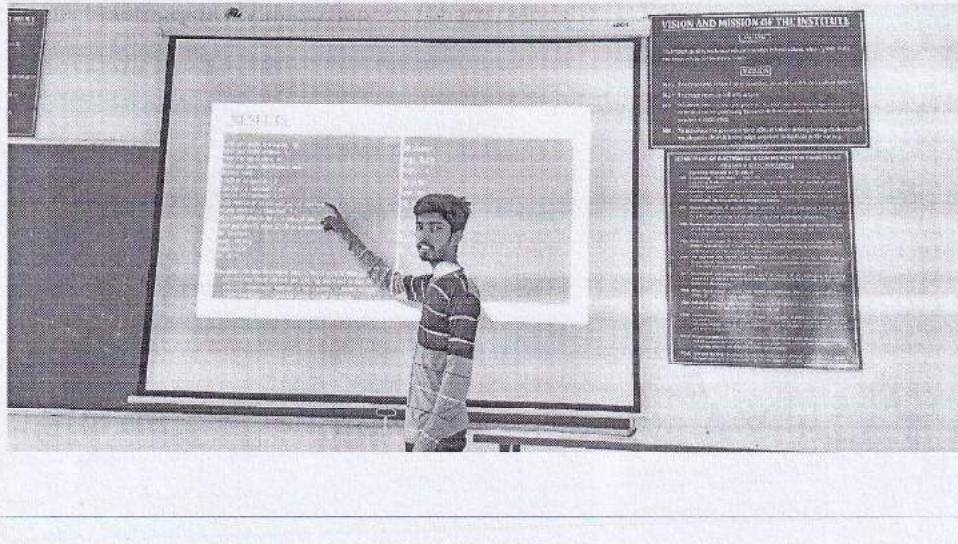
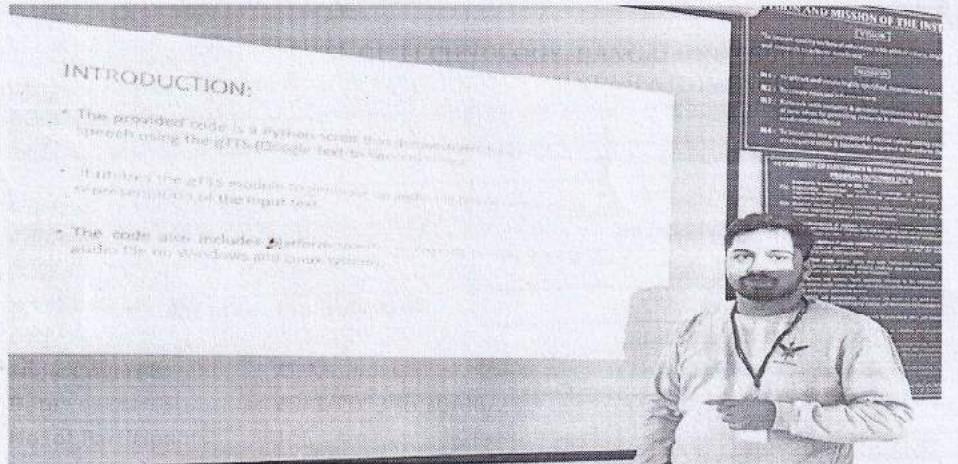
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**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**CONTENT BEYOND SYLLABUS**

Academic Year	2022-23 (Even)
Name of the Faculty	Dr. Surekha Borra
Course Name /Code	Python Application Programming/18EC646
Semester/Section	VI/A & B
Activity Name	Poster Presentations
Topic Covered	All Modules
Date	25/3/2023 to 30/06/23
No. of Participants	105
Relevant PO's	9,10,12

**Proofs (Photographs/Videos/Reports/Charts/Models)**



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1.	Date of issue of topics for presentation	25/3/23
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2. Assignments marks will not be given if submitted on later dates or failed to present a seminar/demo

#### Rubrics/Evaluation Strategy

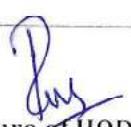
Sl. No	Criteria	Marks
1.	Results	10
2.	Quality of Team Demo	5
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5.	Individual Contribution to Project	5
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48		<b>2</b>	1KS20EC112	N Varsha	
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54	T-16	<b>1</b>	1KS20EC084	Sachin NM	Air Quality index Tracker
55		<b>2</b>	1KS20EC087	Sandeep YH	
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57		<b>4</b>	1KS20EC114	Vinay SP	
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70	T-20	1	1KS20EC066	Pradhyumna SK	Daily Expenses Entry
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Signature of Course In charge

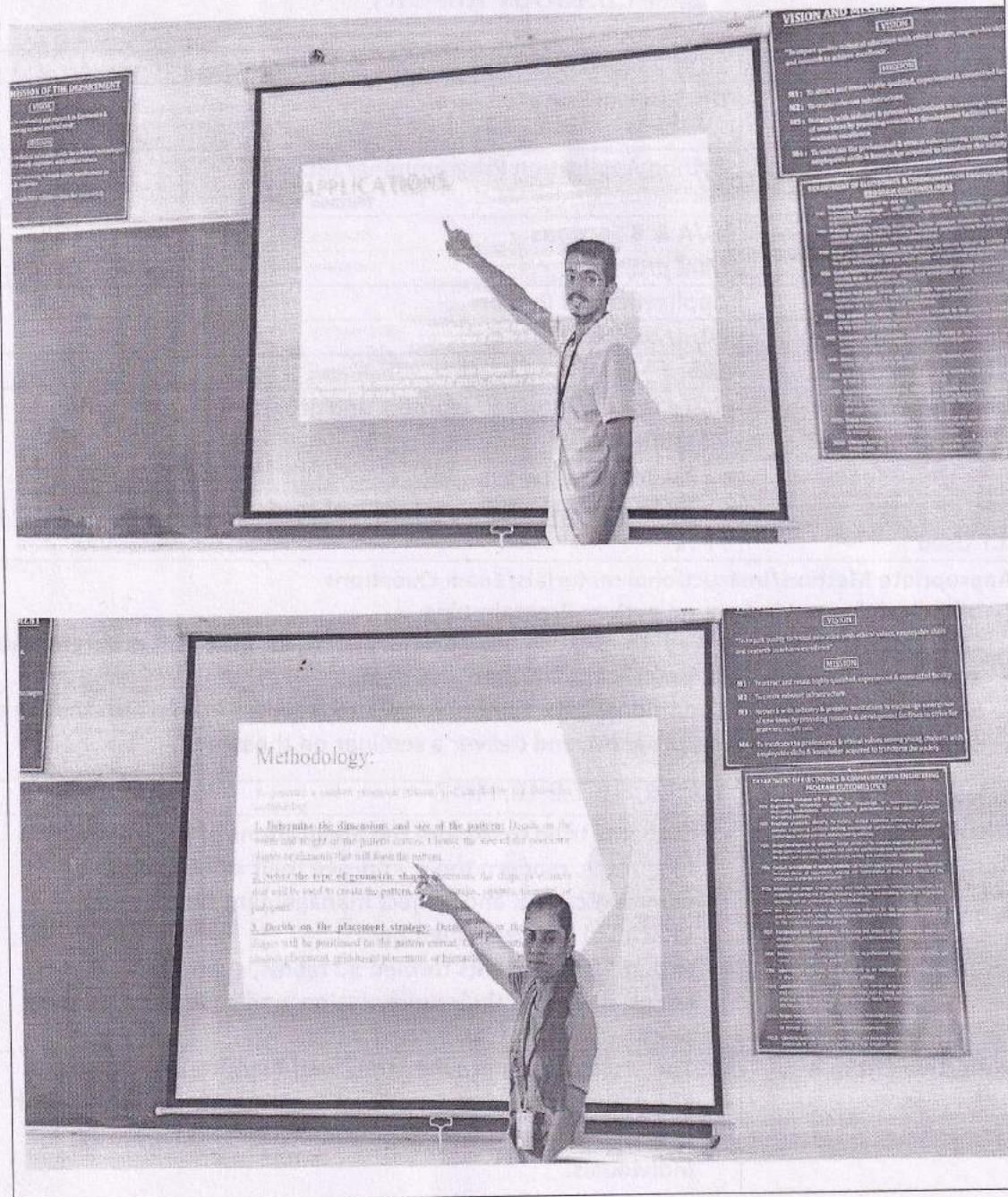
  
Signature of HOD ECE

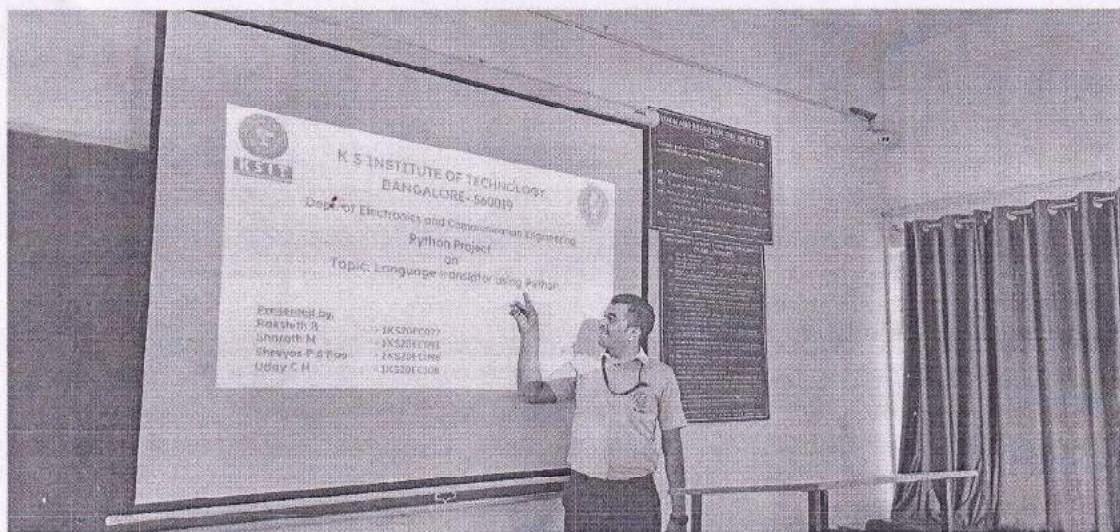
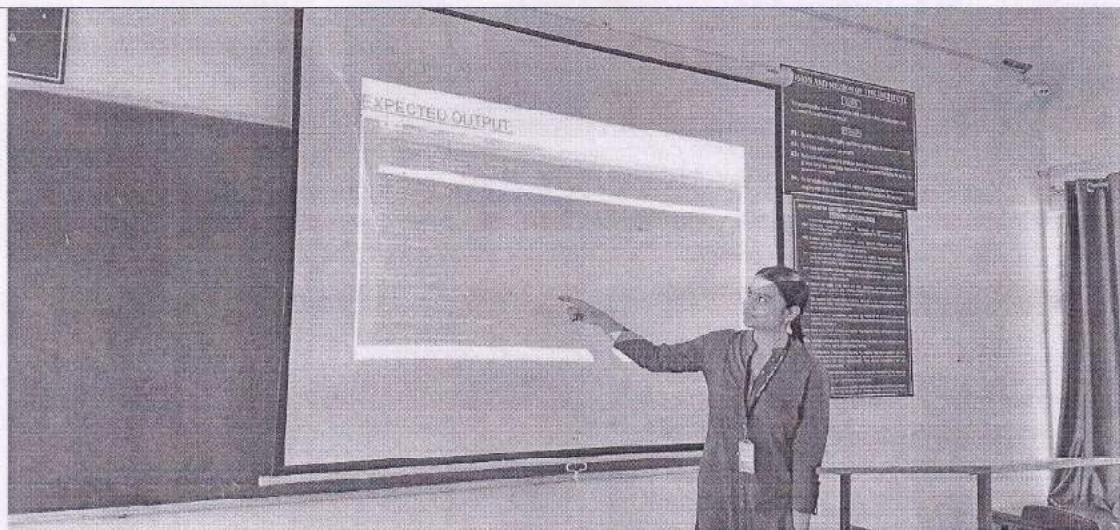


**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**TEACHING AND LEARNING**  
**PEDAGOGY REPORT**

Academic Year	2022-23 (Even)
Name of the Faculty	Dr. Surekha Borra
Course Name /Code	Python Application Programming/18EC646
Semester/Section	VI/A & B Sections
Activity Name	Mini project
Topic Covered	Applications of Python
Date	20/4/2022 to 15/7/22
No. of Participants	105
Objectives/Goals	<ul style="list-style-type: none"><li>• To improve the self-learning and programming skills of students</li><li>• To improve the communication skills of students.</li><li>• To improve the ICT usage skills of students</li></ul>
ICT Used	PPTs
Appropriate Method/Instructional materials/Exam Questions	<ul style="list-style-type: none"><li>• Initially delivered lecture on python Programming.</li><li>• Later students were asked to pick any application of their interest, program the application, prepare PPT, present the PPT and give demo.</li><li>• Students are given with additional information/templates, sources from which they can select the topics, prepare, program, and deliver a seminar on the same.</li></ul>
Relevant PO's	1,2,3,4, 5,6,7,9,10,11,12
Significance of Results/Outcomes	<ul style="list-style-type: none"><li>• Students tried to explore the applications of programming languages, modern tools, improve their self-learning, communication, and project management skills as an individual and team member.</li><li>• Around 105 Students formed 30 teams, submitted python codes, delivered their presentation, and gave demo of their apps.</li></ul>
Reflective Critique	<ul style="list-style-type: none"><li>• The activity improved the self-learning of students.</li><li>• The activity provided a platform for students to interact with peers, improve their communication skills and work as individuals.</li></ul>

## Proofs (Photographs/Videos/Reports/Charts/Models)





Signature of Course In charge

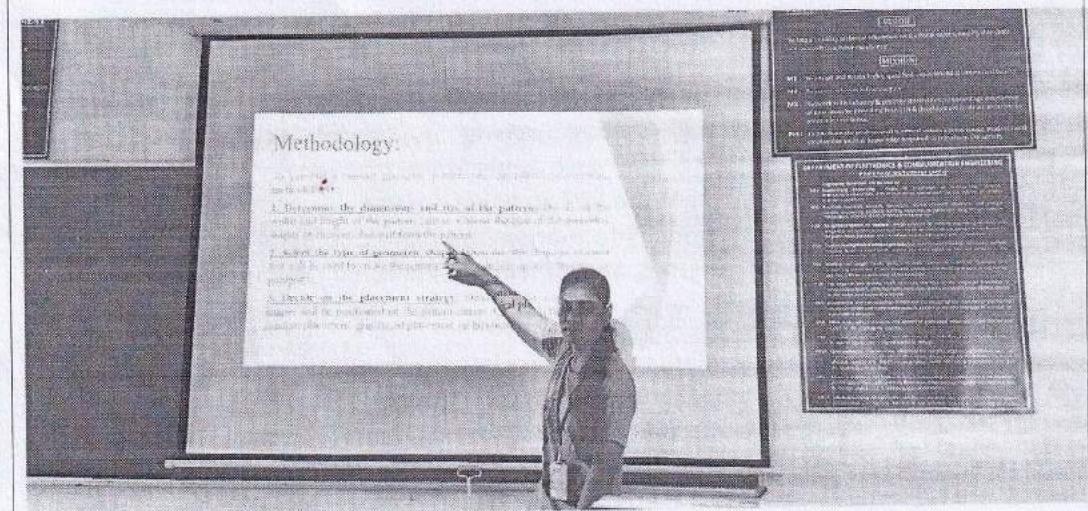
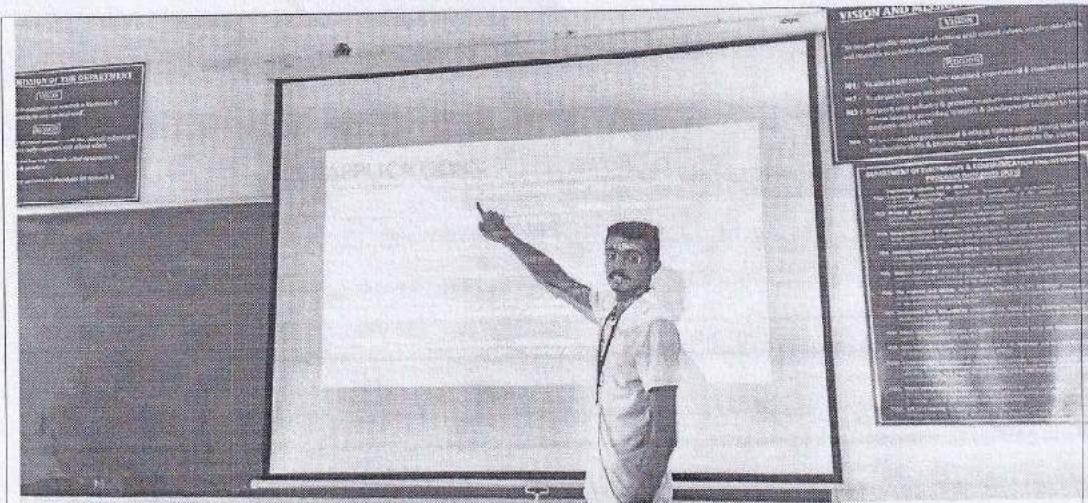
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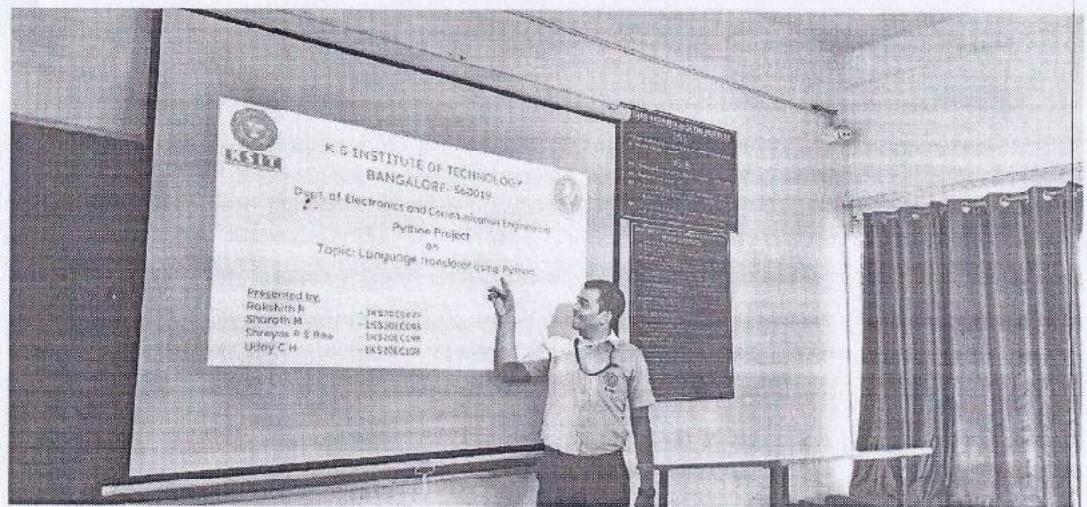
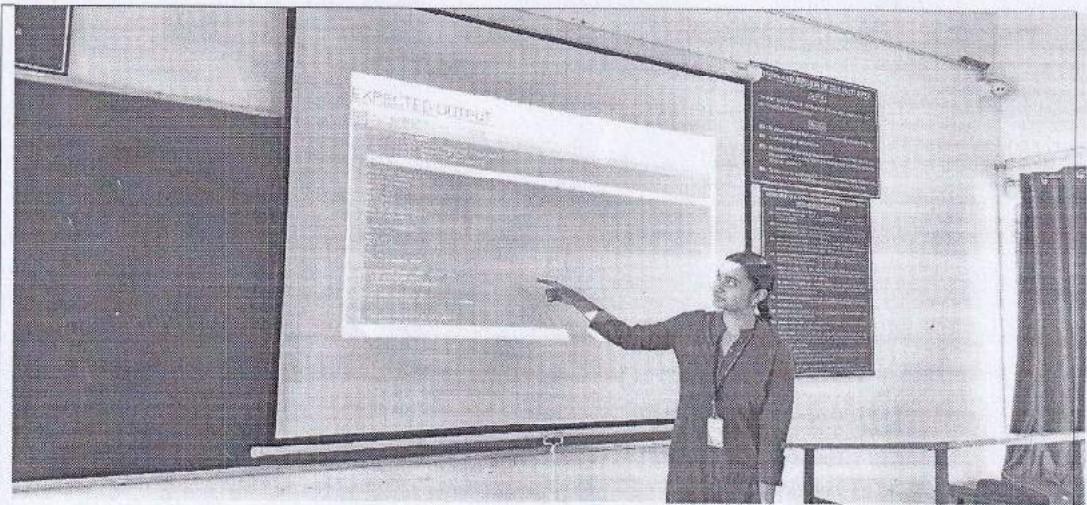


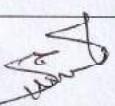
**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**TEACHING AND LEARNING**  
**PEDAGOGY REPORT**

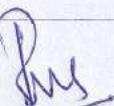
Academic Year	2022-23 (Even)
Name of the Faculty	Dr. Surekha Borra
Course Name /Code	Python Application Programming/18EC646
Semester/Section	VI/A & B Sections
Activity Name	Mini project
Topic Covered	Applications of Python
Date	20/4/2022 to 15/7/22
No. of Participants	105
Objectives/Goals	<ul style="list-style-type: none"><li>• To improve the self-learning and programming skills of students</li><li>• To improve the communication skills of students.</li><li>• To improve the ICT usage skills of students</li></ul>
ICT Used	PPTs
Appropriate Method/Instructional materials/Exam Questions	<ul style="list-style-type: none"><li>• Initially delivered lecture on python Programming.</li><li>• Later students were asked to pick any application of their interest, program the application, prepare PPT, present the PPT and give demo.</li><li>• Students are given with additional information/templates, sources from which they can select the topics, prepare, program, and deliver a seminar on the same.</li></ul>
Relevant PO's	1,2,3,4, 5,6,7,9,10,11,12
Significance of Results/Outcomes	<ul style="list-style-type: none"><li>• Students tried to explore the applications of programming languages, modern tools, improve their self-learning, communication, and project management skills as an individual and team member.</li><li>• Around 105 Students formed 30 teams, submitted python codes, delivered their presentation, and gave demo of their apps.</li></ul>
Reflective Critique	<ul style="list-style-type: none"><li>• The activity improved the self-learning of students.</li><li>• The activity provided a platform for students to interact with peers, improve their communication skills and work as individuals.</li></ul>

Proofs (Photographs/Videos/Reports/Charts/Models)





  
Signature of Course In charge

  
Signature of HOD ECE



**KS INSTITUTE OF TECHNOLOGY BANGALORE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**PYTHON APPLICATION PROGRAMMING**  
**QUESTION BANK**  
**MODULE-1**

1. What is Python? and List some features of Python.
2. Use try and except so that your program handles non-numeric input gracefully by printing a message and exit the program.
3. Explain in detail the building blocks of a program. State the need for functions in Python.
4. What are the differences between C and Python?
5. Explain Syntax errors and Logic errors. Write a program which prompts the user for a Celsius temperature, convert the temperature to Fahrenheit and print out the converted temperature.
6. Explain built-in datatypes of python.
7. Explain the type of function arguments in Python.
8. List some built-in modules in Python and explain with suitable example.
9. Explain the function definition and function calling in Python.
10. Explain variable names, keywords, operators, operands, and order of operations with examples.
11. Explain break and continue statements with examples in Python. Write Pythonic code that iteratively prompts the user for input. It should continue until the user enters 'done' and then return the average value.
12. Briefly describe the methods of regular expression.
13. How to comment specific line(s) in Python program? and Define Quotations
14. Give the syntax and significance of raw\_input() and input() methods.
15. Briefly explain the input and output functions used in python.
16. Differentiable interactive mode and script mode.
17. List the various data types in python and define the scope of the variable.
18. Write the syntax of if and if-else statement. Develop a program to find the largest among three numbers.
19. Define operator & operator precedence. Discuss about the arithmetic, assignment, comparison, and bitwise operators with examples.
20. Briefly discuss about the looping techniques in Python with suitable examples.



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**PYTHON APPLICATION PROGRAMMING**  
**CHALLENGING QUESTIONS**

**MODULE-1**

1. Briefly discuss about the types of decision-making statement.
2. Explain the concept of short circuit evaluation of logical expressions in Python. Write a program to prompt the user for a score between 0.0 and 1.0. If the score is out of range print an error. If the score is between 0.0 and 1.0, print a grade using the following table:

Score	Grade
$\geq 0.9$	A
$\geq 0.8$	B
$\geq 0.7$	C
$\geq 0.6$	D
$< 0.6$	F
3. Write Python program to swap two numbers using functions. (Write without using intermediate/temporary variables). Prompt the user for input.
4. Find the area and perimeter of a circle using functions. Prompt the user for input.
5. Write a Python Program to check whether a number is prime or not using while loop and print appropriate messages.
6. Write Pythonic code to multiply two matrices using nested loops and print the result.
7. Write a Python program to print Fibonacci series upto n terms.
8. Write a Python program to check whether the given no is Armstrong or not using user defined function.
9. Write a Python program to search a specific value from a given list of values using binary search method.
10. Write a python program to take the temperature in Celsius and convert it to Fahrenheit.
11. Write a program to perform addition, subtraction, multiplication, integer division, modulo division, floor division on two values.
12. Write a Python program using function to check given number is odd or even.
13. Write a program that accept a word from the user and reverse it.
14. Find in detail the building blocks of a program in Python.
15. Identify the features of Python and explain the input and output functions used in python.
16. Identify different types of variables, keywords, operators, operands, and operator precedence with examples.
17. Apply different looping techniques of Python with suitable examples
18. Find the output of the following and justify your answer  
i) not"False" ii)-17%10 iii)(212-32)\*5/9 iv) 3.5//1.3
19. Utilize the concept of Catching exceptions using try and except and Construct examples
20. Trace the function call and explain the memory model of the following code:

```
def f(x):
    X=2*X
    return X
X=1
X=f(X+1)
```



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**PYTHON APPLICATION PROGRAMMING**  
**QUESTION BANK**  
**MODULE-2**

1. Write a Python program that counts the number of occurrences of the character in the given string. Provide two implementations: recursive and iterative.
2. "Strings in Python are immutable". Explain this statement with example. Write Pythonic code to find the factorial of any number entered through the keyboard.
3. A number with more than one digit is input through the keyboard. Write Pythonic code to reverse the digits in the number and find the sum of all the digits in the reversed number.
4. Explain the following String methods in detail a) upper( ) and b) find(). Write a Python Program to check whether a number is prime or not using while loop and print appropriate messages.
5. "Strings in Python are immutable". Explain this statement with example. Write Pythonic code to find the factorial of any number entered through the keyboard.
6. Write a python program to search a specific value from a given list of values using binary search method.
7. What is list in Python? Demonstrate use of any three methods of list.
8. What is the use of islower() and isupper() method?
9. Describe the following:
  - i) Initialising string variable
  - ii) Accessing string variable
  - iii) Slicing strings
  - iv) String concatenation
  - v) String replication
10. Discuss with suitable examples
  - i) Opening a file
  - ii) Writing a file
  - iii) Closing a file



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**PYTHON APPLICATION PROGRAMMING**  
**CHALLENGING QUESTIONS**  
**MODULE-2**

1. Describe about the file operations in Python.
2. What is Python list? Explain the basic list operations with suitable examples.
3. Write a Python program to read the file and count and print the lines that start with the word "From". Prompt the user for the file name. Also use try/except to handle bad file names. Explain format operator with examples in Python.
4. Write Pythonic code to Count and Print the occurrence of each of the word in the file using dictionaries. Prompt the user for the file name. Also use try/except to handle bad file names.



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**PYTHON APPLICATION PROGRAMMING**  
**QUESTION BANK**  
**MODULE-3**

1. What are the different operations that can be performed on a list? Explain with examples.
2. Write in brief about List in python.
3. Write in brief about Tuple in python. Write operations with suitable examples.
4. Write in brief about Dictionary in python. Write operations with suitable examples or Write an python program to illustrate the operation on directory
5. Write in brief about Sequence in python. Write operations with suitable examples.
6. Compare List and Tuple.
7. Give any four differences between a list and a string in Python.
8. Write a Python program to read a string with punctuations and print the same string without punctuations.
9. What is a list of lists? Give an example along with its memory model.
10. Write Pythonic code that implements and returns the functionality of histogram using dictionaries. Also, write the function print\_hist to print the keys and their values in alphabetical order from the values returned by the histogram function.
11. Explain join(), split() and append() methods in a List with examples. Write Pythonic code to input information about 20 students as given below:

- 1) Roll number
- 2) Name
- 3) Total Marks

Get the input from the user for a student name. The program should display the Roll number and total marks for the given student's name. Also, find the average marks of all the students. Use dictionaries

12. How are dictionaries and tuples used together? Demonstrate the use of Tuple assignment with dictionaries to traverse the keys and values of dictionary.
13. Write Pythonic code to create a function called most\_frequent that takes a string and prints the letters in decreasing order of frequency. Use dictionaries.
14. Why do you need regular expressions in Python? Consider a file "ksit.txt". Write a Python program to read the file and look for lines of the form

X-DSPAM1-Confidence: 0.8475

X-DSPAM2-Probability: 0.458

Extract the number from each of the lines using a regular expression. Compute the average of the numbers and print out the average. Also use try/except to handle bad file.

15. Consider the string 'brontosaurus'. Write Pythonic code that implements and returns the functionality of histogram using dictionaries for the given string. Also, write the function print\_hist to print the keys and their values in alphabetical order from the values returned by the histogram function.
16. Explain join (), split() and append() methods in a List with examples. Write a program which repeatedly reads numbers until the user enters 'done'. Once 'done' is entered, print out the total, count, and average of the numbers. If the user enters anything other than a number, detect their mistake using try and except and print an error message and skip to the next number
17. Define tuple. Explain DSU pattern. Write Pythonic code to demonstrate tuples by sorting a list of words from longest to shortest using loops.



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**PYTHON APPLICATION PROGRAMMING**  
**CHALLENGING QUESTIONS**  
**MODULE-3**

1. Explain about methods in Lists of Python with appropriate examples.
2. Write a python program to describe different ways of deleting an element from the given List.
3. Write a Python Program to read a word and prints the number of letters, vowels and percentage of vowels in the word using dictionary.
4. Write a python program to compute Selection Sort using list.
5. Write a python program to compute Merge Sort.
6. Variable kingdoms refers to the list ['Bacteria', 'Protozoa', 'Chromista', 'Plantae', 'Fungi', 'Animalia']. Using kingdoms and either slicing or indexing with positive indices, write expressions that produce the following:
  - a. The first item of kingdoms
  - b. The last item of kingdoms
  - c. The list ['Bacteria', 'Protozoa', 'Chromista']
  - d. The list [Chromista', 'Plantae', 'Fungi']
  - e. The list ['Fungi', 'Animalia']
  - f. The empty list
7. Consider the list qty= [5, 4, 7, 3, 6, 2, 1] and write the Python code to perform the following operation without using built-in methods:
  - a. Insert an element 9 at the beginning of the list
  - b. Insert an element 8 at the end of the list i
  - c. Insert an element 8 at the index position 3 of the list
  - d. Delete an element at the beginning of the list
  - e. Delete an element at the end of the list
  - f. Delete an element at the index position 3
  - g. Print the list in reverse order (end to start)
  - h. Delete all the elements of the list.
  - i.
8. Why do you need regular expressions in Python? Consider a line "From stephen.marquard@uct.ac.za Sat Jan 5 09:14:16 2008" in the file email.txt. Write Pythonic code to read the file and extract email address from the lines starting from the word "From". Use regular expressions to match email address.
9. Write an `__init__` method for the Point class that takes x and y as optional parameters and assigns them to the corresponding attributes. Write an add method for Points that works with either a Point object or a tuple. If the second operand is a Point, the method should return a new Point whose x coordinate is the sum of the x coordinates of the operands, and likewise for the y coordinates. If the second operand is a tuple, the method should add the first element of the tuple to the x coordinate and the second element to the y coordinate and return a new Point with the result.
10. Consider a user defined class called Point. Write a function called distance that takes two Points as arguments and returns the distance between them.



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**PYTHON APPLICATION PROGRAMMING**  
**QUESTION BANK**  
**MODULE-4**

1. Make use of examples to explain classes, objects, and attributes in python language.
2. Make use of python code, to explain how functions return instance values.
3. Identify the differences between shallow equality and deep equality with respect to classes and objects, with the help of python codes.
4. Make use of example program to define a class and its uses in Python? Explain how to instantiate a class and how the class members are accessed?
5. Explain pure functions and modifiers with examples
6. Explain initialization method with example
7. What is operator overloading ? write python code to overload "+" "-" and "\*" operator by providing the methods \_\_add\_\_,\_\_sub\_\_and\_\_mul\_\_.
8. Illustrate the concept of pure functions and modifiers with python code
9. What is the difference between method and function? Explain the working of init method with suitable code
10. What is type based dispatch? Illustrate with python example.
11. What are the polymorphic functions? Explain with a snippet code.
12. Differentiate between simple, multiple, and multi-level inheritance?
13. Differentiate class variables and instance variables.
14. What does the keyword self in python mean? Explain with an example.
15. Show using a python code how\_int\_method is invoked when an object is initiated. explain its working
16. Explain\_str\_method with a python program.



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**PYTHON APPLICATION PROGRAMMING**  
**CHALLENGING QUESTIONS**  
**MODULE-4**

1. Write a class rectangle that has attributes length and breadth and a method area which returns the area of the rectangle.
2. Write a program that has a class Point with attributes as X and Y co-ordinates, Create two objects of this class and find the midpoint of both the points. Add a method reflex\_x to classpoint, which returns a new point. Which is the reflection of the point about the x-axis.
3. Ex: point (5, 10)= reflex\_x returns point (5,-10).
4. Write a program that has a class Person, Inherit a class Student from Person which also has a class MarksAttendance. Assume the attributes for Person class as: USN, Name, dob, gender. Attributes for Student class as: Class, branch, year, MA. Attributes for Marks Attendance: Marks, Attandance. Create a student S= Student ("1AB16CS005", "XYZ", "18-1-90", "M", 85, 98) and display the details of the student.
5. Create student class and initialize it with name and roll number. Design methods to:
  - a. Display\_to display all information of the student.
  - b. setAge\_to assign age to student.
  - c. setMarks\_to assign marks to the student.
6. Write a program that uses class to store the name and marks of students. Use list to store the marks in three subjects
7. Write a Python program that uses datetime module within a class, takes a birthday as input and prints the age and the number of days, hours, minutes and seconds until the next birthday.
8. Using datetime module write a program that gets the current time and prints the day of the week.
9. Define polymorphism. Demonstrate polymorphism with function to find histogram ro count the members of times each letters appears in a word and in sentence.
10. Write a python program to find duration of event if start and end time is given by defining class TIME.
11. Write a python program to express instances as return values to define a class RECTANGLE with members width ,height, corner\_x, corner\_y and member function: to find centre ,area and perimeter of a rectangle.



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**PYTHON APPLICATION PROGRAMMING**  
**QUESTION BANK**  
**MODULE-4**

1. Make use of examples to explain classes, objects, and attributes in python language.
2. Make use of python code, to explain how functions return instance values.
3. Identify the differences between shallow equality and deep equality with respect to classes and objects, with the help of python codes.
4. Make use of example program to define a class and its uses in Python? Explain how to instantiate a class and how the class members are accessed?
5. Explain pure functions and modifiers with examples
6. Explain initialization method with example
7. What is operator overloading ? write python code to overload "+" "-" and "\*" operator by providing the methods \_\_add\_\_,\_\_sub\_\_ and \_\_mul\_\_.
8. Illustrate the concept of pure functions and modifiers with python code
9. What is the difference between method and function? Explain the working of init method with suitable code
10. What is type based dispatch? Illustrate with python example.
11. What are the polymorphic functions? Explain with a snippet code.
12. Differentiate between simple, multiple, and multi-level inheritance?
13. Differentiate class variables and instance variables.
14. What does the keyword self in python mean? Explain with an example.
15. Show using a python code how \_\_int\_\_ method is invoked when an object is initiated. explain its working
16. Explain \_\_str\_\_ method with a python program.

# CBCS SCHEME

USN 

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18EC646

## Sixth Semester B.E. Degree Examination, Jan./Feb. 2023 Python Application Programming

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

### Module-1

1. a. Identify three types of errors encountered in Python and also explain the basic building blocks of Python program. (07 Marks)
- b. Predict the output and justify your answer (i)  $-13 \% 9$  (ii)  $6.6 // 16$  (iii)  $1+2**3/4*5$  (iv) not "False" (v)  $5*1***3$  (05 Marks)
- c. Develop python programs to, (i) Find largest of three numbers (ii) Check whether the given year is leap year or not with functions. (08 Marks)

**OR**

2. a. Make use of necessary examples and flow chart to explain the concept of alternate execution, chained conditional and nested conditional statements. (08 Marks)
- b. Develop a user defined function named 'Solve' that returns the sum and difference of two numbers accepted from the user. Print the sum and difference separately on the console. (05 Marks)
- c. Make use of necessary code examples to explain the following – (i) Short circuit evaluation of an expression (ii) Fruitful functions and void functions. (07 Marks)

### Module-2

3. a. Build a python program to compute counting summing and average of elements using loops. (06 Marks)
- b. Make use of necessary examples to explain any six methods associated with strings. (06 Marks)
- c. Mention the advantages of break and continue statement. Write a program to compute the sum of only odd numbers within the given natural number using continue statement. (08 Marks)

**OR**

4. a. Make use of necessary syntax to explain fileopen, fileclose, fileread and filewrite concepts in python. (08 Marks)
- b. Develop a python program to accept a file name from the user : (i) Display the first N lines of the file, (ii) Find the frequency of occurrence of the word accepted by the user. (08 Marks)
- c. Use find and string slicing to extract the portion of the string after the colon character and then use the float function to convert the extracted string into a floating point number. Assume the following string :  
`str = X-DSPAM-Confidence : 99.94` (04 Marks)

### Module-3

5. a. Describe any two list operations and list methods. Develop a python program to accept n numbers from user, find sum of all even numbers and product of all odd numbers in entered list. (08 Marks)
- b. Identify pop and remove methods on lists. How to delete more than one element from a list. (06 Marks)
- c. Identify the difference between list and tuples and also demonstrate (i) How a dictionary item can be represented as a list of tuples, (ii) How tuples can be used as keys in dictionaries. (06 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg.  $42+8=50$ , will be treated as malpractice.

**OR**

- 6 a. Develop a program to check the validity of a password read by the users. The following criteria should be used to check the validity. Password should have at least –
- One lower case letter.
  - One digit.
  - One upper case letter.
  - One special character from (\$#!@)
  - Six characters
- (08 Marks)
- b. Build a python program that accepts a sentence and builds a dictionary with LETTERS, DIGITS, UPPERCASE, LOWERCASE as key values and their count in the sentence as values and their count in the sentence as values.  
Ex : Sentence = “VTU@123.e-Learning”  
 $d = \{“LETTERS”: 12, “DIGITS”: 3, “UPPERCASE”: 4, “LOWERCASE”: 8\}$  (06 Marks)
- c. Develop a python program to count occurrence frequency of words in a file using dictionary. (06 Marks)

**Module-4**

- 7 a. Create a student class and initialize it with name and roll number. Develop method to,
- (i) SetAge – to assign age to student
  - (ii) SetMarks – to assign marks to student
  - (iii) Display – to display all information of the student
- (08 Marks)
- b. Differentiate between pure function and modifier. Develop a python program to find duration of an event if start and end time is given by defining class TIME. (08 Marks)
- c. Demonstrate the concept of operator overloading with a code snippet. (04 Marks)

**OR**

- 8 a. Make use of necessary examples to explain single, multiple, multilevel and hierarchical inheritance. (08 Marks)
- b. Develop a python program to express instances as return values to define a class RECTANGLE with members width, height, corner\_X, corner\_Y and member functions : to find center, area and perimeter of a rectangle. (08 Marks)
- c. Explain `__init__` method with an example. (04 Marks)

**Module-5**

- 9 a. Explain any two socket functions. Explain support for parsing HTML using regular expression with an example program. (08 Marks)
- b. Make use of an example to explain the significance of XML over the web development. (08 Marks)
- c. Compare and contrast the JavaScript object Notation (JSON) and XML. (04 Marks)

**OR**

- 10 a. Describe creation of database table using database cursor architecture. (08 Marks)
- b. Create a simple spidering program that will go through Twitter accounts and build a database of them. (08 Marks)
- c. What is service oriented architecture? List the advantages of the same. (04 Marks)

\* \* \* \* \*

**Sixth Semester B.E. Degree Examination, Aug./Sept. 2020**  
**Python Application Programming**

Time: 3 hrs.

Max. Marks: 80

**Note:** Answer any *FIVE* full questions, choosing *ONE* full question from each module.

**Module-1**

1. a. Explain types of error with examples. (04 Marks)
  - b. Explain various Names, Keywords and expressions with examples. (06 Marks)
  - c. Write a python program using try and except, so that your program handles non-numeric input gracefully by printing a message and exiting the program the following shown two execution of the program
- Enter Hours : 20  
 Enter Rate : nine  
 Error, please enter numeric input  
 Enter hours : forty  
 Error, please enter numeric input. (06 Marks)

**OR**

2. a. Explain conditional execution, Alternative execution chained conditionals and nested conditionals with examples. (08 Marks)
- b. Explain break and continue statement with examples in python. (04 Marks)
- c. Explain with an example what are fruitful functions and void functions. (04 Marks)

**Module-2**

3. a. Explain while and for loops with examples. (04 Marks)
- b. Write a python program to find the largest value from the given set of accepted values. (06 Marks)
- c. Discuss the string handling methods in python with examples. (06 Marks)

**OR**

4. a. Write a python program to check whether a given string is palindrome or not. (06 Marks)
- b. Explain with example the syntax of read( ), write( ) methods for a file. (04 Marks)
- c. Develop a python program for creating a copy an existing file. (06 Marks)

**Module-3**

5. a. Explain the difference between a list and a dictionary. (04 Marks)
- b. Make a list of first ten letters of the alphabet then using the slice operation do the following:
  - i) Print the first three letters from the list
  - ii) Print any three letters from the middle
  - iii) Print the letters from 5<sup>th</sup> letters to the end of the list. (04 Marks)
- c. Discuss the lists handling functions in python with example. (08 Marks)

**OR**

- 6 a. Differentiate between list and dictionary. (08 Marks)  
b. Define tuple, explain DSU pattern. Write a python code to determinate tuples by sorting a list of words from longest to shortest using loops. (04 Marks)  
c. Explain the need of Regular expressions in python language. (04 Marks)

**Module-4**

- 7 a. Explain classes and attributes in python language with examples. (05 Marks)  
b. Explain pure functions and modifiers with examples. (05 Marks)  
c. Write a program that uses class to store the name and marks of students. Use list to store the marks in three subjects. (06 Marks)

**OR**

- 8 a. Explain initialization method with example. (04 Marks)  
b. Write a class Rectangle that has attributes length and breadth and a method area which returns the area of the rectangle. (06 Marks)  
c. What is operator overloading? Write python code to overload “+” “-” and “\*” operator by providing the methods \_\_add\_\_, \_\_sub\_\_ and \_\_mul\_\_. (06 Marks)

**Module-5**

- 9 a. Write a python code for retrieving the romeo.txt file from the web and compute the frequency of each word in the file. (06 Marks)  
b. Write a note on XML. (05 Marks)  
c. Explain with a neat diagram of Service Oriented Architecture. (05 Marks)

**OR**

- 10 a. Describe creation of database table using database cursor architecture. (08 Marks)  
b. Write a python code for creating employee database, inserting records and selecting the employees working in the company. (08 Marks)

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## CBCS SCHEME

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15CS664

### Sixth Semester B.E. Degree Examination, Dec.2019/Jan.2020 Python Application Programming

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

#### Module-1

1. a. Explain the salient features of python. (05 Marks)  
b. Write a python program to calculate the area of square, rectangle and circle. Print the results. Take input from user. (05 Marks)  
c. What are user defined functions? How can we pass parameters in user defined functions? Explain with suitable example. (06 Marks)

OR

2. a. Explain the concept of conditional execution alternate execution and chained conditions with suitable examples. (06 Marks)  
b. Write a python program to create a user defined function to find maximum and minimum letter in string. Also find the length the string without using inbuilt function. (05 Marks)  
c. Explain the concept of type conversion functions and math functions in python with examples. (05 Marks)

#### Module-2

3. a. Explain the working of while loop in python with suitable example. (05 Marks)  
b. Write a python program to demonstrate counting, summing and average of elements using loops. (05 Marks)  
c. What is a string? Write a python program to demonstrate traversal through a string with a loop. Also explain the concept of string slicing. (06 Marks)

OR

4. a. With syntax and example code, explain the working of definite loop in python. (05 Marks)  
b. Write a python program to concatenate and compare two strings. Read the strings from user. (05 Marks)  
c. Explain fileopen, fileclose, fileread and filewrite concepts in python with example. (06 Marks)

#### Module-3

5. a. What is a list? Explain the concept of list slicing and list traversing with example. (05 Marks)  
b. Explain the concept of comparing tuples. Describe the working of sort function with python code. (06 Marks)  
c. Write a python program to search for lines that start with 'F' followed by 2 characters, followed by 'm'. (05 Marks)

OR

6. a. What is dictionary? How is it different from list? Write a python program to count occurrence of characters in a string and print the count. (06 Marks)  
b. With an example program, illustrate how to pass function arguments to list. (05 Marks)  
c. Write a python program to search lines that start with 'X' followed by any non whitespace characters, followed by ':' ending with number. Display the sum of all these number. (05 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to examiner and/or questions written eg. 42/8 = 50, will be treated as malpractice.

**Module-4**

- 7 a. Define class and object? What are programmer defined types? Explain with example (05 Marks)  
b. Illustrate the concept of pure function with python code. (05 Marks)  
c. What is the difference between method and function? Explain the working of init method with suitable code. (06 Marks)

**OR**

- 8 a. Define attribute? With the help of python code, explain how functions return instance values. (06 Marks)  
b. Explain the concept of modifier with python code. (05 Marks)  
c. What is type based dispatch? Illustrate with python example. (05 Marks)

**Module-5**

- 9 a. Define socket? Write a python program that makes a connection to a webserver and follows the rules of HTTP protocol to request a plain test document and display what server sends back. (06 Marks)  
b. What is XML? How is it used in python? Explain parsing of XML with example. (05 Marks)  
c. Define cursor? Explain connect, execute and close command of databases with suitable example. (05 Marks)

**OR**

- 10 a. Write a python code to read the file from web using urllib and retrieve the data of the file. Also compute the frequency of each word in the file. (06 Marks)  
b. What is JSON? Illustrate the concept of parsing JSON python code. (05 Marks)  
c. Explain the concept of using JOIN to retrieve data in python. (05 Marks)

**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGG**



YEAR / SEMESTER	III / VI
COURSE TITLE	Python Application F
COURSE CODE	18EC646
ACADEMIC YEAR	2022-23
BATCH	2019-23

CO Attainment Level	Significance	
Level 1	60% and above students should have scored >= 60% of Total marks	
Level 2	55% to 59% of students should have scored >= 60% of Total marks	
Level 3	50% to 54% of students should have scored >= 60% of Total marks	

For Direct attainment , 50% of CIE and 50% of SEE marks are considered.	
For Indirect attainment, Course end survey is considered.	
CO attainment is 90%of direct attainment + 10% of indirect attainment.	
PQ attainment = CO-PO mapping strength/3 * CO attainment .	

SL NO.	USN	NAME	IA1						Assignment 1						IA2						Assignment 2						IA3						Assignment 3						EXTERNAL															
			IA1	CO 1	Scorers	Tar get 60%	%	IA1	CO 1	Scorers	Tar get 60%	CO 2	Scorers	Tar get 60%	%	IA1	CO 2	Scorers	Tar get 60%	CO 3	Scorers	Tar get 60%	%	A2	CO 2	Scorers	Tar get 60%	CO 4	Scorers	Tar get 60%	%	A3	CO 4	Scorers	Tar get 60%	CO 5	Scorers	Tar get 60%	%	A3	CO 4	Scorers	Tar get 60%	CO 5	Scorers	Tar get 60%	%	SE	Scorers	Tar get 60%	%	SE	Scorers	Tar get 60%
<b>Maximum Marks</b>			30	18				12	3	10	6	4	30	6	18	6	10	2	6	2	30	12	18	6	10	4	6	6	60																									
1	IKS19EC026	ERAM FATHIMA	23	9	1	N		12	3	Y	10	6	3	Y	4	3	Y	26	4	3	Y	15	3	Y	3	1	N	30	2	3	Y	6	3	Y	0	N	10	2	N	10	4	3	Y	6	3	Y	0	N						
2	IKS19EC034	UJIMA SWETHA S	26	14	3	Y		12	3	Y	10	6	3	Y	4	3	Y	25	6	3	Y	16	3	Y	5	2	3	Y	20	2	3	Y	6	3	Y	0	N	14	3	Y	6	3	Y	0	N									
3	IKS20EC001	ABHISHEK J	26	18	3	Y		8	3	Y	10	6	3	Y	4	3	Y	17	3	1	N	14	3	Y	0	0	N	10	2	3	Y	6	3	Y	17	3	0	N	14	3	Y	6	3	Y	0	N								
4	IKS20EC002	Aditi dubey	30	18	3	Y		12	3	Y	10	6	3	Y	4	3	Y	29	6	3	Y	18	3	Y	5	3	Y	10	2	3	Y	6	3	Y	2	3	Y	18	3	Y	6	3	Y	0	N									
5	IKS20EC003	AFEEFA SHARIEFF	28	16	3	Y		12	3	Y	10	6	3	Y	4	3	Y	28	6	3	Y	18	3	Y	5	3	Y	10	2	3	Y	6	3	Y	2	3	Y	16	4	0	N	12	3	Y	6	3	Y	0	N					
6	IKS20EC004	Ajay B G	23	17	3	Y		6	1	N	10	6	3	Y	4	3	Y	27	5	3	Y	18	3	Y	4	3	Y	10	2	3	Y	6	3	Y	18	6	3	Y	10	4	3	Y	6	3	Y	0	N							
7	IKS20EC006	Akash M	23	17	3	Y		6	1	N	10	6	3	Y	4	3	Y	24	6	3	Y	18	3	Y	0	0	N	6	1	1	N	4	3	Y	1	1	N	18	0	0	N	18	3	Y	10	4	3	Y	6	3	Y	0	N	
8	IKS20EC008	B S HEMASHREE	15	13	3	Y		2	0	N	10	6	3	Y	4	3	Y	25	6	3	Y	17	3	Y	2	0	N	10	2	3	Y	6	3	Y	22	6	1	N	16	3	Y	10	4	3	Y	6	3	Y	0	N				
9	IKS20EC009	BHARATH M	22	14	3	Y		8	3	Y	5	1	1	N	2	1	N	10	6	3	Y	4	0	N	0	0	N	5	1	1	N	3	1	N	1	1	N	12	2	0	N	10	2	N	0	0	N	0	0	N	0	N		
10	IKS20EC010	Bhavitha. B	18	12	3	Y		6	1	N	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	16	4	0	N	12	3	Y	6	3	Y	0	N					
11	IKS20EC011	Bhuwaneshwan k	25	15	3	Y		10	3	Y	10	6	3	Y	4	3	Y	26	4	3	Y	18	3	Y	4	3	Y	10	2	3	Y	6	3	Y	23	8	2	Y	12	3	Y	10	4	3	Y	6	3	Y	0	N				
12	IKS20EC012	Chaitanya k	24	14	3	Y		10	3	Y	10	6	3	Y	4	3	Y	18	4	3	Y	12	3	Y	2	0	N	10	2	3	Y	6	3	Y	14	4	0	N	10	2	N	10	4	3	Y	6	3	Y	0	N				
13	IKS20EC013	CHAITHRA K	23	13	3	Y		10	3	Y	10	6	3	Y	4	3	Y	24	3	1	N	15	3	Y	6	3	Y	10	2	3	Y	6	3	Y	22	7	2	N	15	3	Y	10	4	3	Y	6	3	Y	0	N				
14	IKS20EC014	C. Sri Srijaitha	29	18	3	Y		11	3	Y	10	6	3	Y	4	3	Y	21	5	3	Y	16	3	Y	0	0	N	4	1	1	N	3	1	N	0	0	N	20	6	1	N	14	3	Y	10	4	3	Y	6	3	Y	0	N	
15	IKS20EC015	C Umadevi	28	16	3	Y		12	3	Y	10	6	3	Y	4	3	Y	24	6	3	Y	14	3	Y	4	3	Y	10	2	3	Y	6	3	Y	2	3	Y	10	4	3	Y	6	3	Y	0	N								
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17	IKS20EC017	Chethan G	16	8	0	N		8	3	Y	10	6	3	Y	4	3	Y	19	3	1	N	14	3	Y	2	0	N	4	1	1	N	3	1	N	0	0	N	20	4	0	N	16	3	Y	10	4	3	Y	6	3	Y	0	N	
18	IKS20EC018	Chethankumar J	14	6	0	N		8	3	Y	10	6	3	Y	4	3	Y	12	0	0	N	12	3	Y	0	0	N	10	2	3	Y	6	3	Y	2	3	Y	7	2	0	N	5	0	N	6	2	1	N	4	3	Y	0	N	
19	IKS20EC019	CHETHAN KUMAR T	22	14	3	Y		8	3	Y	8	5	3	Y	3	3	Y	27	5	3	Y	12	3	Y	0	0	N	6	1	1	N	4	3	Y	1	1	N	11	4	0	N	7	0	N	10	4	3	Y	6	3	Y	0	N	
20	IKS20EC020	DARSHAN K	22	14	3	Y		8	3	Y	10	6	3	Y	4	3	Y	29	6	3	Y	17	3	Y	6	3	Y	6	1	1	N	4	3	Y	1	1	N	18	4	0	N	14	3	Y	10	4	3	Y	6	3	Y	0	N	
21	IKS20EC021	DARSHAN KUMAR S	29	17	3	Y		12	3	Y	10	6	3	Y	4	3	Y	27	5	3	Y	18	3	Y	4	3	Y	10	2	3	Y	6	3	Y	2	3	Y	14	4	0	N	10	2	N	10	4	3	Y	6	3	Y	0	N	
22	IKS20EC023	Dhamini J	26	14	3	Y		12	3	Y	10	6	3	Y	4	3	Y	15	4	3	Y	8	0	N	3	1	N	10	2	3	Y	6	3	Y	2	3	Y	13	1	0	N	12	3	Y	10	4	3	Y	6	3	Y	0	N	
23	IKS20EC024	Dhruva Kumar S	19	11	3	Y		8	3	Y	10	6	3	Y	4	3	Y	21	4	3	Y	15	3	Y	2	0	N	10	2	3	Y	6	3	Y	2	3	Y	19	2	0	N	17	3	Y	5	2	1	N	3	0	N	0	N	
24	IKS20EC025	Divya N	23	11	3	Y		10	3	Y	10	6	3	Y	4	3	Y	27	0	3	Y	18	3	Y	3	1	N	10	2	3	Y	6	3	Y	2	3	Y	17	0	0	N	17	3	Y	10	4	3	Y	6	3	Y	0	N	
25	IKS20EC026	Edwar Bradar	18	12	3	Y		6	1	N	10	6	3	Y	4	3	Y	15	6	3	Y	8	0	N	1	0	N	10	2	3	Y	6	3	Y	2	3	Y	15	4	0	N	11	3	Y	8	3	1	V	5	3	V	0	N	
26	IKS20EC027	G BHAVANA PRIYADARSHINI	29	17	3	Y		12	3	Y	10	6	3	Y	4	3	Y	30	6																																			

28	IKS20EC029	Gagan B S	21	13	3	Y	8	3	Y	10	0	3	Y	4	3	Y	30	6	3	Y	18	3	Y	0	3	Y	10	2	3	Y	6	3	Y	2	3	Y	42	10	3	Y	15	3	Y	10	4	3	Y	6	3	Y	0	N
29	IKS20EC030	Gandhamani C M	28	10	3	Y	10	3	Y	10	0	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	23	7	0	N	18	3	Y	10	4	3	Y	6	3	Y	0	N
30	IKS20EC031	Gomitha R C	25	13	3	Y	12	3	Y	10	6	3	Y	4	3	Y	26	5	3	Y	16	3	Y	5	3	Y	10	2	3	Y	6	3	Y	2	3	Y	17	4	0	N	13	3	Y	9	4	3	Y	5	3	Y	0	N
31	IKS20EC032	Harini k	23	15	3	Y	8	3	Y	10	6	3	Y	4	3	Y	24	5	3	Y	14	3	Y	5	3	Y	10	2	3	Y	6	3	Y	2	3	Y	24	9	3	Y	15	3	Y	7	3	3	Y	4	3	Y	0	N
32	IKS20EC033	Harshith Gowda AR	19	11	3	Y	8	3	Y	10	6	3	Y	4	3	Y	24	6	3	Y	18	3	Y	0	0	N	10	2	3	Y	6	3	Y	2	3	Y	19	4	0	N	15	3	Y	10	4	3	Y	6	3	Y	0	N
33	IKS20EC034	Harshitha B L	24	14	3	Y	10	3	Y	10	6	3	Y	4	3	Y	26	6	3	Y	13	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	25	8	1	Y	17	3	Y	10	4	3	Y	6	3	Y	0	N
34	IKS20EC035	Harshitha J	21	13	3	Y	8	3	Y	10	9	3	Y	4	3	Y	26	6	3	Y	18	3	Y	2	0	N	10	2	3	Y	6	3	Y	2	3	Y	25	8	3	Y	17	3	Y	10	4	3	Y	6	3	Y	0	N
35	IKS20EC036	HARSHITHA N	25	17	3	Y	8	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	25	8	3	Y	17	3	Y	10	4	3	Y	6	3	Y	0	N
36	IKS20EC037	Inchira P	21	15	3	Y	6	1	N	10	6	3	Y	4	3	Y	29	5	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	11	0	0	N	11	3	Y	10	4	3	Y	6	3	Y	0	N
37	IKS20EC038	Chaitanya Krishna J	16	8	0	N	8	3	Y	10	6	3	Y	4	3	Y	25	6	3	Y	17	3	Y	2	0	N	10	2	3	Y	6	3	Y	2	3	Y	15	3	0	N	12	3	Y	10	4	3	Y	6	3	Y	0	N
38	IKS20EC039	Jamuna S G	28	11	3	Y	12	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	22	6	1	N	16	3	Y	10	4	3	Y	6	3	Y	0	N
39	IKS20EC040	Janhavi f	29	17	3	Y	12	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	21	6	1	N	15	3	Y	10	4	3	Y	6	3	Y	0	N
40	IKS20EC041	JAYANTH H	26	18	3	Y	8	3	Y	10	6	3	Y	4	3	Y	24	6	3	Y	18	3	Y	0	0	N	10	2	3	Y	6	3	Y	2	3	Y	24	6	1	N	18	3	Y	10	4	3	Y	6	3	Y	0	N
41	IKS20EC042	K Jeevitha	29	17	3	Y	12	3	Y	10	6	3	Y	4	3	Y	28	6	3	Y	17	3	Y	5	3	Y	10	2	3	Y	6	3	Y	2	3	Y	24	6	1	N	18	3	Y	10	4	3	Y	6	3	Y	0	N
42	IKS20EC043	K M Arshumanth	30	18	3	Y	12	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	0	0	N	10	2	3	Y	6	3	Y	2	3	Y	15	3	0	N	12	3	Y	10	4	3	Y	6	3	Y	0	N
43	IKS20EC044	Kavana G S	17	9	1	N	8	3	Y	10	6	3	Y	4	3	Y	38	1	1	N	12	3	Y	3	1	N	5	1	1	N	3	1	N	1	1	N	10	0	0	N	10	2	N	8	3	Y	5	3	Y	0	N	
44	IKS20EC046	Kavya S M	27	16	3	Y	11	3	Y	30	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	24	6	1	N	18	3	Y	10	4	3	Y	6	3	Y	0	N
45	IKS20EC047	Keerthanha BS	27	9	1	N	8	3	Y	10	6	3	Y	4	3	Y	16	2	0	N	14	3	Y	0	0	N	10	2	3	Y	6	3	Y	2	3	Y	13	4	0	N	9	0	N	10	4	3	Y	6	3	Y	0	N
46	IKS20EC048	Kiran Dao D	26	14	3	Y	12	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	22	4	0	N	18	3	Y	10	4	3	Y	6	3	Y	0	N
47	IKS20EC049	KIRAN V NARAYAN	28	16	3	Y	12	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	21	4	0	N	17	3	Y	10	4	3	Y	6	3	Y	0	N
48	IKS20EC050	KODIDELA PRATHIMA	24	12	3	Y	12	3	Y	10	6	3	Y	4	3	Y	26	6	3	Y	17	3	Y	3	1	N	10	2	3	Y	6	3	Y	2	3	Y	29	11	3	Y	18	3	Y	10	4	3	Y	6	3	Y	0	N
49	IKS20EC051	KUMAR K G	24	16	3	Y	8	3	Y	10	6	3	Y	4	3	Y	26	6	3	Y	14	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	28	10	3	Y	18	3	Y	0	0	N	0	N	0	N		
50	IKS20EC052	Kusuma VR	24	18	3	Y	6	1	N	10	6	3	Y	4	3	Y	24	6	3	Y	18	3	Y	0	0	N	10	2	3	Y	6	3	Y	2	3	Y	28	12	3	Y	16	3	Y	10	4	3	Y	6	3	Y	0	N
51	IKS20EC053	M Archana	23	11	3	Y	12	3	Y	10	6	3	Y	4	3	Y	23	6	3	Y	14	3	Y	3	1	N	10	2	3	Y	6	3	Y	2	3	Y	26	8	3	Y	18	3	Y	10	4	3	Y	6	3	Y	0	N
52	IKS20EC054	MADHHA	23	9	1	N	12	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	8	2	3	Y	5	3	Y	1	1	N	13	8	3	Y	5	0	N	10	4	3	Y	6	3	V	0	N
53	IKS20EC055	MAHESH BIRADAR	20	10	2	N	10	3	Y	16	6	3	Y	4	3	Y	23	6	3	Y	14	3	Y	3	1	N	10	2	3	Y	6	3	Y	2	3	Y	16	4	0	N	12	3	Y	9	4	3	Y	5	3	Y	0	N
54	IKS20EC056	MANASWINI KM	15	13	3	Y	2	0	N	10	6	3	Y	4	3	Y	20	5	3	Y	13	3	Y	2	0	N	10	2	3	Y	6	3	Y	2	3	Y	24	6	1	N	18	3	Y	10	4	3	Y	6	3	Y	0	N
55	IKS20EC057	Meghashree M	28	16	3	Y	12	3	Y	10	6	3	Y	4	3	Y	28	6	3	Y	16	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	28	12	3	Y	17	3	Y	10	4	3	Y	6	3	Y	0	N
56	IKS20EC058	MOHAN KRISHNA K	27	15	3	Y	12	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	9	0	0	N	9	0	N	10	4	3	Y	6	3	Y	0	N
57	IKS20EC059	N Shreya	26	16	3	Y	10	3	Y	10	6	3	Y	4	3	Y	29	6	3	Y	17	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	30	12	3	Y	18	3	Y	10	4	3	Y	6	3	Y	0	N
58	IKS20EC060	NALLANI GOWTHAMI	12	6	0	N	6	1	N	10	6	3	Y	4	3	Y	18	6	3	Y	11	3	Y	1	0	N	5	1	1	N	3	1	N	1	1	N	10	3	0	N	7	0	N	10	4	3	Y	6	3	Y	0	N
59	IKS20EC061	NEHA CG	22	14	3	Y	8	3	Y	10	6	3	Y	4	3	Y	20	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	22	4	0	N	18	3	Y	10	4	3	Y	6				

70	IKS20EC072	Pushpa DT	15 5 0 N	10 3 Y 10 6 3 Y 4 3 Y 15 1 0 N 14 3 Y 0 0 N 10 2 3 Y 6 3 Y 2 3 Y 6 0 0 N 6 0 N 7 3 3 Y 4 3 Y 0 N
71	IKS20EC073	RAHUL KRISHNAN V	27 14 3 Y	8 3 Y 10 6 3 Y 4 3 Y 28 6 3 Y 18 3 Y 4 3 Y 10 2 3 Y 6 3 Y 2 3 Y 18 4 0 N 14 3 Y 10 4 3 Y 6 3 Y 0 N
72	IKS20EC074	RAHUL R	17 11 3 Y	6 1 N 10 6 3 Y 4 3 Y 14 1 0 N 13 3 Y 0 0 N 4 1 1 N 1 N 0 0 N 2 0 0 N 3 0 N 10 4 3 Y 6 3 Y 0 N
73	IKS20EC075	RAJATH K ACHAR	24 16 3 Y	8 3 Y 10 6 3 Y 4 3 Y 27 6 3 Y 17 3 Y 4 3 Y 10 2 3 Y 6 3 Y 2 3 Y 22 6 1 N 16 3 Y 8 3 3 Y 5 3 Y 0 N
74	IKS20EC076	Rakithth NM	15 9 1 N	6 1 N 10 6 3 Y 4 3 Y 26 6 3 Y 16 3 Y 4 3 Y 10 2 3 Y 6 3 Y 2 3 Y 18 3 0 N 15 3 Y 10 4 3 Y 6 3 Y 0 N
75	IKS20EC077	RAKSHITH R	22 14 3 Y	8 3 Y 10 6 3 Y 4 3 Y 29 0 3 Y 17 3 Y 6 3 Y 10 2 3 Y 6 3 Y 2 3 Y 22 4 0 N 18 3 Y 10 4 3 Y 6 3 Y 0 N
76	IKS20EC078	Rakshitha A	26 15 3 Y	11 3 Y 10 6 3 Y 4 3 Y 29 6 3 Y 18 3 Y 5 3 Y 8 2 3 Y 5 3 Y 1 1 N 27 11 3 Y 16 3 Y 10 4 3 Y 6 3 Y 0 N
77	IKS20EC079	RAMESHWAR	18 13 3 Y	5 0 N 10 6 3 Y 4 3 Y 16 0 0 N 16 3 Y 2 0 N 8 2 3 Y 5 3 Y 1 1 N 19 3 0 N 16 3 Y 10 4 3 Y 6 3 Y 0 N
78	IKS20EC080	Ramya T	20 12 3 Y	8 3 Y 10 6 3 Y 4 3 Y 16 6 3 Y 14 3 Y 6 3 Y 10 2 3 Y 6 3 Y 2 3 Y 25 8 3 Y 17 3 Y 8 3 3 Y 5 3 Y 0 N
79	IKS20EC082	Rohit A k	22 13 3 Y	0 0 N 10 6 3 Y 4 3 Y 5 1 0 N 4 0 N 0 0 N 10 2 3 Y 6 3 Y 2 3 Y 10 4 0 N 6 0 N 10 4 3 Y 6 3 Y 0 N
80	IKS20EC083	S Annu Kumar	20 12 3 Y	8 3 Y 10 6 3 Y 4 3 Y 28 6 3 Y 16 3 Y 6 3 Y 10 2 3 Y 6 3 Y 2 3 Y 21 10 3 Y 11 3 Y 10 4 3 Y 6 3 Y 0 N
81	IKS20EC084	Sudhin NM	7 6 0 N	1 0 N 10 6 3 Y 4 3 Y 16 4 3 Y 12 3 Y 0 0 N 10 2 3 Y 6 3 Y 2 3 Y 12 3 0 N 9 0 N 10 4 3 Y 6 3 Y 0 N
82	IKS20EC085	SADHANA.SRINIVAS	22 13 3 Y	9 3 Y 10 6 3 Y 4 3 Y 28 5 3 Y 17 3 Y 6 3 Y 10 2 3 Y 6 3 Y 2 3 Y 17 8 3 Y 9 0 N 10 4 3 Y 6 3 Y 0 N
83	IKS20EC087	Sandeep Y H	20 12 3 Y	8 3 Y 10 6 3 Y 4 3 Y 23 6 3 Y 17 3 Y 0 0 N 10 2 3 Y 6 3 Y 2 3 Y 18 3 0 N 15 3 Y 10 4 3 Y 6 3 Y 0 N
84	IKS20EC089	Sanjana G	29 17 3 Y	12 3 Y 10 6 3 Y 4 3 Y 28 6 3 Y 16 3 Y 6 3 Y 10 2 3 Y 6 3 Y 2 3 Y 23 8 3 Y 15 3 Y 10 4 3 Y 6 3 Y 0 N
85	IKS20EC090	Sarjana T Gaikwar	26 12 3 Y	4 3 Y 10 6 3 Y 4 3 Y 20 4 3 Y 12 3 Y 4 3 Y 10 2 3 Y 6 3 Y 2 3 Y 19 4 0 N 15 3 Y 8 3 3 Y 5 3 Y 0 N
86	IKS20EC092	Shakthi Ambizagam M	26 18 1 Y	8 3 Y 10 6 3 Y 4 3 Y 30 6 3 Y 18 3 Y 6 3 Y 10 2 3 Y 6 3 Y 2 3 Y 26 8 3 Y 18 3 Y 10 4 3 Y 6 3 Y 0 N
87	IKS20EC093	Shanketh M	23 13 3 Y	10 3 Y 10 6 3 Y 4 3 Y 29 6 3 Y 17 3 Y 6 3 Y 10 2 3 Y 6 3 Y 2 3 Y 19 7 2 N 12 3 Y 10 4 3 Y 6 3 Y 0 N
88	IKS20EC094	SHASHANK S	23 17 3 Y	6 1 N 10 6 3 Y 4 3 Y 27 6 3 Y 17 3 Y 4 3 Y 10 2 3 Y 6 3 Y 2 3 Y 18 0 0 N 18 3 Y 10 4 3 Y 6 3 Y 0 N
89	IKS20EC095	SHIVAREDDY B A	22 14 3 Y	8 3 Y 10 6 3 Y 4 3 Y 22 3 1 N 13 3 Y 6 3 Y 10 2 3 Y 6 3 Y 2 3 Y 26 8 3 Y 18 3 Y 10 4 3 Y 6 3 Y 0 N
90	IKS20EC096	Shreya H Padmanabha	23 15 3 Y	8 3 Y 10 6 3 Y 4 3 Y 30 6 3 Y 18 3 Y 6 3 Y 10 2 3 Y 6 3 Y 2 3 Y 23 6 1 N 17 3 Y 10 4 3 Y 6 3 Y 0 N
91	IKS20EC097	Shreyas M S	18 10 2 N	8 1 Y 10 6 3 Y 4 1 Y 95 4 3 Y 18 1 Y 1 1 N 10 2 3 Y 6 3 Y 2 3 Y 10 4 0 N 6 0 N 10 4 3 Y 6 3 Y 0 N
92	IKS20EC098	Shreyas p s rao	15 14 3 Y	1 0 N 10 6 3 Y 4 3 Y 22 5 3 Y 16 3 Y 1 0 N 10 2 3 Y 6 3 Y 2 3 Y 17 3 0 N 14 3 Y 10 4 3 Y 6 3 Y 0 N
93	IKS20EC099	SHWETA DEEPAK K	24 14 3 Y	10 3 Y 10 6 3 Y 4 3 Y 30 6 3 Y 18 3 Y 6 3 Y 10 2 3 Y 6 3 Y 2 3 Y 22 8 3 Y 14 3 Y 10 4 3 Y 6 3 Y 0 N
94	IKS20EC101	SONIKA R	26 16 3 Y	12 3 Y 10 6 3 Y 4 3 Y 28 6 3 Y 16 3 Y 6 3 Y 10 2 3 Y 6 3 Y 2 3 Y 17 11 3 Y 6 0 N 10 4 3 Y 6 3 Y 0 N
95	IKS20EC102	SUMANA N	29 17 3 Y	12 3 Y 10 6 3 Y 4 3 Y 30 6 3 Y 18 3 Y 6 3 Y 10 2 3 Y 6 3 Y 2 3 Y 24 8 3 Y 10 3 Y 10 4 3 Y 6 3 Y 0 N
96	IKS20EC103	SUMUKHAS	22 14 3 Y	8 3 Y 10 6 3 Y 4 3 Y 29 6 3 Y 17 3 Y 6 3 Y 10 2 3 Y 6 3 Y 2 3 Y 16 3 0 N 17 3 Y 7 3 3 Y 4 3 Y 0 N
97	IKS20EC104	SURAKSHA N	28 16 3 Y	12 3 Y 10 6 3 Y 4 3 Y 30 6 3 Y 18 3 Y 6 3 Y 10 2 3 Y 6 3 Y 2 3 Y 30 12 3 Y 18 3 Y 10 4 3 Y 6 3 Y 0 N
98	IKS20EC105	Tanu Prasanna	25 17 3 Y	8 3 Y 10 6 3 Y 4 3 Y 28 6 3 Y 16 3 Y 6 3 Y 10 2 3 Y 6 3 Y 2 3 Y 22 7 2 N 15 3 Y 10 4 3 Y 6 3 Y 0 N
99	IKS20EC106	TEJAS N REDDY	21 15 3 Y	6 1 N 10 6 3 Y 4 3 Y 16 4 3 Y 8 0 N 4 3 Y 5 1 1 N 3 1 N 1 1 N 17 3 0 N 14 3 Y 0 0 0 N 0 N 0 N
100	IKS20EC107	T GIRISH CHOWDARY	15 12 3 Y	1 0 N 10 6 3 Y 4 3 Y 22 6 3 Y 12 3 Y 4 3 Y 10 2 3 Y 6 3 Y 2 3 Y 7 3 0 N 4 0 N 10 4 3 Y 6 3 Y 0 N
101	IKS20EC108	Uday C H	29 17 3 Y	12 3 Y 10 6 3 Y 4 3 Y 30 6 3 Y 18 3 Y 6 3 Y 10 2 3 Y 6 3 Y 2 3 Y 23 10 3 Y 13 3 Y 10 4 3 Y 6 3 Y 0 N
102	IKS20EC109	UJJWAL NAIDU	17 9 1 N	8 3 Y 10 6 3 Y 4 3 Y 21 6 3 Y 10 2 N 5 3 Y 10 2 3 Y 6 3 Y 2 3 Y 14 3 0 N 11 3 Y 10 4 3 Y 6 3 Y 0 N
103	IKS20EC110	VAISHNAVI A	24 16 3 Y	8 3 Y 10 6 3 Y 4 3 Y 28 6 3 Y 17 3 Y 5 3 Y 10 2 3 Y 6 3 Y 2 3 Y 28 10 3 Y 18 3 Y 10 4 3 Y 6 3 Y 0 N
104	IKS20EC111	Vaishnavi V.H	22 14 3 Y	8 3 Y 10 6 3 Y 4 3 Y 25 6 3 Y 15 3 Y 4 3 Y 10 2 3 Y 6 3 Y 2 3 Y 22 4 0 N 18 3 Y 10 4 3 Y 6 3 Y 0 N
105	IKS20EC112	N Varsha	25 16 3 Y	9 3 Y 10 6 3 Y 4 3 Y 30 6 3 Y 18 3 Y 6 3 Y 10 2 3 Y 6 3 Y 2 3 Y 18 5 0 N 13 3 Y 9 4 3 Y 5 3 Y 0 N
106	IKS20EC113	Vijayalakshmi K	23 13 3 Y	10 3 Y 10 6 3 Y 4 3 Y 25 3 1 N 18 3 Y 4 3 Y 10 2 3 Y 6 3 Y 2 3 Y 18 2 0 N 16 3 Y 10 4 3 Y 6 3 Y 0 N
107	IKS20EC114	VINAY S P	19 11 3 Y	6 1 N 10 6 3 Y 4 3 Y 30 6 3 Y 18 3 Y 0 3 Y 10 2 3 Y 6 3 Y 2 3 Y 23 7 2 N 16 3 Y 10 4 3 Y 6 3 Y 0 N
108	IKS20EC115	VINAY SAGAR V ALUR	9 15 3 Y	4 0 N 10 6 3 Y 4 3 Y 16 5 3 Y 8 0 N 1 N 9 2 3 Y 6 3 Y 1 1 N 8 2 0 N 6 0 N 10 4 3 Y 6 3 Y 0 N
109	IKS20EC116	VINEETH M S	21 15 3 Y	6 1 N 10 6 3 Y 4 3 Y 23 6 3 Y 17 3 Y 0 0 N 10 2 3 Y 6 3 Y 2 3 Y 12 4 0 N 8 0 N 8 3 3 Y 5 3 Y 0 N
110	IKS20EC117	YASHILAA.S	24 16 3 Y	8 3 Y 10 6 3 Y 4 3 Y 29 6 3 Y 18 3 Y 5 3 Y 10 2 3 Y 6 3 Y 2 3 Y 10 4 0 N 0 0 N 0 0 N 10 4 3 Y 6 3 Y 0 N
111	IKS20EC118	YASHWANTH Y	25 15 3 Y	8 3 Y 10 6 3 Y 4 3 Y 30 6 3 Y 16 3 Y 6 3 Y 10 2 3 Y 6 3 Y 2 3 Y 26 8 3 Y 18 3 Y 8 3 3 Y 5 3 Y 0 N

CO	CIE	SE F	DIRECT ATTAIN MENT	Level I	ATTAINMEN T	Final Att
CO1	91.35	0	45.67	0.0	3.0	0.3
CO2	87.98	0	43.99	0.0	3.0	0.3
CO3	90.87	0	45.43	0.0	3.0	0.3
CO4	66.35	0	33.17	0.0	3.0	0.3
CO5	86.06	0	43.03	0.0	3.0	0.3
AVERAGE						0.3

CO	Score index out of 5
CO1	1.33
CO2	1.71
CO3	1.37
CO4	0.49
CO5	1.22

Co-Po Mapping Table													
Co <sup>+</sup> S <sub>-</sub>	Po1	Po2	Po3	Po4	Po5	Po6	Po7	Po8	Po9	Po10	Po11	Po12	Po13
Co1	3	3	1	1	2	3	3	—	3	3	1	2	3
Co2	3	1	1	1	2	1	1	—	3	3	1	2	3
Co3	3	2	1	1	2	1	—	1	1	1	1	2	2
Co4	3	2	1	1	2	1	1	—	1	1	1	2	2
Co5	3	3	2	2	1	1	—	1	1	1	2	1	2
AVG	3.00	2.60	1.40	1.20	2.00	1.80	1.80	—	1.80	1.80	1.00	1.60	2.00

PO Attainment															
CO'S	CO Attainment														
	CO RES- ULT	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO7	PO8	PO 9	PO 10	PO 11	PO 12	PS 01	PS 02
CO1	0.30	N	0.3	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.1	0.2	0.3	0.2	0.3
CO2	0.30	N	0.3	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.1	0.2	0.3	0.2
CO3	0.30	N	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
CO4	0.30	N	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
CO5	0.3	N	0.3	0.5	0.3	0.2	0.2	0.1	0.4	0.1	0.1	0.1	0.3	0.5	0.2
Average	0.38	N	0.3	0.26	0.14	0.12	0.2	0.18	0.18	0.18	0.18	0.18	0.1	0.18	0.26

CO	CIE	SE F	DIRECT ATTAIN MENT	LIVE I	INDI RES T	Final Att
C01	91.35	0	45.67	0.0	3.0	0.3
C02	87.98	0	43.99	0.0	3.0	0.3
C03	90.87	0	45.43	0.0	3.0	0.3
C04	66.35	0	33.17	0.0	3.0	0.3
C05	86.06	0	43.03	0.0	3.0	0.3
AVERAGE						0.3

CO	Score index out of 5
CO1	1.33
CO2	1.71
CO3	1.37
CO4	0.49
CO5	1.22

Co-Po Mapping Table													
Co-S.	Po1	Po2	Po3	Po4	Po5	Po6	Po7	Po8	Po9	Po10	Po11	Po12	Po13
CO1	3	3	1	1	2	3	3	—	3	3	1	2	3
CO2	3	3	1	1	2	3	1	—	3	3	1	2	3
CO3	3	2	1	1	2	1	—	—	1	1	1	1	2
CO4	3	2	1	1	2	1	1	—	1	1	1	2	2
CO5	3	3	2	2	2	1	—	—	1	1	2	1	2
AVG	3.00	2.60	1.40	1.20	2.00	1.80	1.80	—	1.80	1.80	1.00	1.60	2.00

PO Attainment															
CO'S	CO Attainment														
	CO RES ULT	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS OI	PS RS OI
CO1	0.30	N	0.3	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.1	0.2	0.3	0.2
CO2	0.30	N	0.3	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.1	0.2	0.3	0.2
CO3	0.30	N	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
CO4	0.30	N	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
CO5	0.3	N	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.5
Average		N	0.3	0.26	0.14	0.12	0.2	0.18	0.18	0.18	0.18	0.18	0.13	0.13	0.26

**K.S.Institute of Technology,Bangalore -109**  
**Department of Electronics and Communication Engg**  
**6th sem Course End Survey 2022-23**

Course : Python Application Programming ( Professional Elective-1) Course Code :18EC646

Q1.How well you are able to understand Python programming syntax and semantics ?

Q2.To what level are you familiar with use of flow control, functions, strings and file systems in python.

Q3.To what extent are you familiar with the concepts of object oriented programming as used in Python.

Q4.How well you can utilize the concepts related to network programming, web services and database in python application?

Q5.How well you are able to make use of knowledge gained from python programming for different applications ?

Date	USN	Name of the Student	Faculty Name	Q1	Q2	Q3	Q4	Q5
06-07-2023	1KS20EC080	Ramya T	Dr. Surekha Borra	2	2	2	2	2
06-07-2023	1KS20EC091	Sanjana t gadikar	Dr. Surekha Borra	3	3	3	3	2
06-07-2023	1KS20EC117	Yashilaa S	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1KS20EC099	Shweta Deepak K	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1KS20EC084	Sachin NM	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1KS20EC062	Neha Nagraj Airani	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1KS20EC113	Vijayalakshmi K	Dr. Surekha Borra	3	2	3	2	3
06-07-2023	1KS20EC023	DHAMINI. J	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1ks20ec115	Vinay sagar	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1KS20EC111	Vaishnavi vh	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1KS20EC008	B.S.Hemashree	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1KS20EC031	Gomitha R C	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1KS20EC036	HARSHITHA N	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1KS20EC105	Tarun Prasanna	Dr. Surekha Borra	2	3	2	3	2
06-07-2023	1ks20ec107	T.Girishchowdary	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1KS20EC060	Nallani gowthami	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	Chaitanya k	Chaitanya k	Dr. Surekha Borra	2	2	2	2	2
06-07-2023	1KS20EC032	Harini k	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1KS20EC106	tejas n reddy	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1ks20ec094	Shashank S	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1KS20EC034	Harshitha.B.L	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1KS20EC051	KUMAR KG	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1KS20EC072	Pushpa DT	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1KS20EC035	Harshitha J	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1ks20ec074	Rahul R	Dr. Surekha Borra	2	2	2	2	2
06-07-2023	1KS20EC103	SUMUKHA.S	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1KS20EC019	Chethan Kumar T	Dr. Surekha Borra	3	3	3	3	3
06-07-2023	1KS20EC043	Amshumanth	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC048	Kiran Dev D	Dr. Surekha Borra	3	3	3	3	1
07-07-2023	1KS20EC068	Prema G	Dr. Surekha Borra	2	2	2	2	2
07-07-2023	1KS20EC093	Sharath M	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC055	Mahesh Biradar	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC033	Harshith Gowda AR	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC028	Gagan HC	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC041	Jayanth H	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC087	Sandeep YH	Dr. Surekha Borra	3	3	3	3	3

07-07-2023	1KS20EC095	Shivareddy	Dr. Surekha Borra	1	1	1	1	1
07-07-2023	1KS20EC108	Uday C H	Dr. Surekha Borra	3	3	3	2	3
07-07-2023	1KS20EC066	Pradhyumna S Kashyap	Dr. Surekha Borra	2	2	2	2	2
07-07-2023	1KS20EC039	Jamuna s g	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC056	Manaswini km	Dr. Surekha Borra	3	3	3	2	3
07-07-2023	1KS20EC010	Bhavitha	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC013	CHAITHRA K	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC085	Sadhana Srinivas	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC015	C.Umadevi	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC052	Kusuma VR	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1st	Aditi dubey	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1ks19ec034	Hima swetha	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC024	Dhruva Kumar S	Dr. Surekha Borra	2	2	2	2	2
07-07-2023	1ks20ec067	Praveen D B	Dr. Surekha Borra	2	2	2	2	2
07-07-2023	1KS20EC003	Afeefa Sharieff	Dr. Surekha Borra	2	2	2	2	2
07-07-2023	1KS20EC049	Kiran V Narayan	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC097	Shreyas M S	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC018	Chethan Kumar J	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC027	G BHAVANA PRIYADARSHINI	Dr. Surekha Borra	3	3	3	1	2
07-07-2023	1KS20EC070	Priyanka K	Dr. Surekha Borra	3	3	3	3	2
07-07-2023	1KS20EC029	Gagana B S	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC050	K Prathima	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC065	Pavani T S	Dr. Surekha Borra	2	3	3	2	2
07-07-2023	1KS20EC061	Neha cr	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1ks20ec071	Priyanika.M	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC037	INCHARA P	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC014	Challagundla Sai Srijitha	Dr. Surekha Borra	2	2	2	2	2
07-07-2023	1KS20EC045	Kavana G S	Dr. Surekha Borra	2	2	2	3	2
07-07-2023	1KS20EC089	Sanjana G	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC025	Divya N	Dr. Surekha Borra	2	2	2	2	2
07-07-2023	1KS20EC083	S Arun Kumar	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC047	Keerthana B S	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC073	Rahul Krishnan V	Dr. Surekha Borra	3	3	3	2	2
07-07-2023	1ks20ec063	Vasanth Kumar	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1KS20EC112	Varsha N	Dr. Surekha Borra	3	3	2	3	3
07-07-2023	1KS20EC021	Darshan kumar	Dr. Surekha Borra	3	3	2	3	2
07-07-2023	1KS20EC079	Rameshwar	Dr. Surekha Borra	3	3	3	3	3
07-07-2023	1ks20ec092	Shakthi Anbazhagan M	Dr. Surekha Borra	3	3	3	3	2
07-07-2023	1KS20EC075	RAJATH K ACHAR	Dr. Surekha Borra	3	3	3	3	3
08-07-2023	1KS20EC116	Vineeth M S	Dr. Surekha Borra	3	3	3	3	3
08-07-2023	1KS20EC030	Gandhamani	Dr. Surekha Borra	3	3	3	3	3
08-07-2023	1KS20EC109	Ujjwal Naidu	Dr. Surekha Borra	3	3	3	3	3
08-07-2023	1KS20EC078	RAKSHITHA A	Dr. Surekha Borra	3	3	3	3	3
08-07-2023	1ks20ec069	Priyanka hc	Dr. Surekha Borra	3	3	3	3	3
08-07-2023	1KS20EC016	CHAYA S	Dr. Surekha Borra	3	3	3	3	3
08-07-2023	1KS20EC026	Eshwar Biradar	Dr. Surekha Borra	3	3	3	3	3
09-07-2023	1KS20EC102	SUMANA N	Dr. Surekha Borra	3	3	3	3	3
09-07-2023	1KS20EC104	Suraksha N	Dr. Surekha Borra	3	3	3	3	3
09-07-2023	1. KS20EC059	N shreya	Dr. Surekha Borra	3	3	3	3	3

09-07-2023	1KS20EC046	KAVYA S M	Dr. Surekha Borra	3	3	3	3	3
09-07-2023	1KS20EC053	M.Archana	Dr. Surekha Borra	3	3	3	3	3
09-07-2023	1kz20ec004	Ajay B.G	Dr. Surekha Borra	3	3	3	3	3
09-07-2023	1KS20EC057	Meghashree.M	Dr. Surekha Borra	3	3	3	3	3
09-07-2023	1KS20EC054	Madiha	Dr. Surekha Borra	2	2	2	2	2
09-07-2023	1KS20EC042	K Jeevitha	Dr. Surekha Borra	2	2	3	3	3
09-07-2023	1KS20EC020	Darshan.K	Dr. Surekha Borra	3	3	2	2	2
09-07-2023	1KS20EC011	Bhuvaneshwari k	Dr. Surekha Borra	2	2	2	2	2
09-07-2023	1KS20EC114	VINAY S P	Dr. Surekha Borra	3	3	3	3	3
09-07-2023	1KS20EC118	YASHWANTH Y	Dr. Surekha Borra	3	3	3	3	3
09-07-2023	1KS20EC110	Vaishnavi A	Dr. Surekha Borra	3	2	3	3	3
09-07-2023	1KS20EC077	RAKSHITH R	Dr. Surekha Borra	1	2	2	2	1
09-07-2023	1KS20EC096	Shreya h	Dr. Surekha Borra	3	3	3	3	3
09-07-2023	1KS20EC009	Bharath.M	Dr. Surekha Borra	3	2	2	2	2
10-07-2023	1ks20ec064	Pavan c	Dr. Surekha Borra	3	3	3	3	3
10-07-2023	1ks20ec038	JAMPULA CHAITHANYA KRISHNA	Dr. Surekha Borra	3	2	3	2	3
10-07-2023	1KS20EC101	Sonika.R	Dr. Surekha Borra	2	2	2	2	2
10-07-2023	1KS20EC017	Chethan G	Dr. Surekha Borra	3	3	3	3	3
10-07-2023	1KS20EC001	Abhishek J	Dr. Surekha Borra	3	3	3	3	3
10-07-2023	1KS20EC082	Rohit A K	Dr. Surekha Borra	3	3	3	3	3
10-07-2023	1ks19ec026	Eram fathima	Dr. Surekha Borra	3	3	3	3	3
				No.of '1's	2	1	1	2
				Total	106	106	106	106
				%age of 2 and above	98.11	99.06	99.06	98.11
				Average	98.30			97.17

YEAR / SEMESTER	III / VI
COURSE TITLE	Python Application P
COURSE CODE	18EC646
ACADEMIC YEAR	2022-23
BATCH	2019-23

DEPARTMENT OF EDUCATION AND CULTURAL AFFAIRS

CO	Attainment Level	Significance
L1	60% and above students should have scored $\geq 60\%$ of Total marks	
L2	55% to 59% of students should have scored $\geq 60\%$ of Total marks	
L3	50% to 54% of students should have scored $\geq 60\%$ of Total marks	

For Direct attainment , 50% of CIE and 50% of SEE marks are considered	
For indirect attainment, Course end survey is considered.	
CO attainment = 90% of direct attainment + 10% of indirect attainment	
PD attainment = CO PD mapping strength3 * CO attainment ,	

33	IKS20EC054	Harsitha,B.L	24	14	3	Y	10	3	Y	1	3	Y	25	6	3	Y	13	3	Y	6	3	Y	111	2	3	Y	6	3	Y	2	3	Y	19	4	0	N	15	3	Y	10	4	3	Y	6	3	Y	30	1	N				
34	IKS20EC035	Harsitha,J	23	13	3	Y	8	3	Y	10	6	3	Y	4	3	Y	26	6	3	Y	18	3	Y	2	0	N	10	2	3	Y	6	3	Y	2	3	Y	25	8	3	Y	17	3	Y	10	4	3	Y	6	3	Y	36	1	Y
35	IKS20EC036	HARSHITHA N	25	17	3	Y	9	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	25	8	3	Y	17	3	Y	10	4	3	Y	6	3	Y	36	3	Y
36	IKS20EC037	Indraja,P	21	15	3	Y	6	1	N	10	6	3	Y	4	3	Y	29	5	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	11	0	0	N	11	3	Y	10	4	3	Y	6	3	Y	39	3	Y
37	IKS20EC038	Chaitanya krishna,J	16	8	0	N	8	3	Y	10	6	3	Y	4	3	Y	25	6	3	Y	17	3	Y	2	0	N	10	2	3	Y	6	3	Y	2	3	Y	15	3	0	N	12	3	Y	10	4	3	Y	6	3	Y	35	2	N
38	IKS20EC039	Jurmania,s.g	23	11	3	Y	12	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	22	6	1	N	16	3	Y	10	4	3	Y	6	3	Y	41	3	Y
39	IKS20EC040	Janhavir	29	17	3	Y	12	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	21	6	1	N	15	3	Y	10	4	3	Y	6	3	Y	40	3	Y
40	IKS20EC041	JAYANTH,II	26	18	3	Y	8	3	Y	10	6	3	Y	4	3	Y	24	6	3	Y	18	3	Y	6	0	N	10	2	3	Y	6	3	Y	2	3	Y	24	6	1	N	18	3	Y	10	4	3	Y	6	3	Y	24	0	N
41	IKS20EC042	K Jeertha	20	17	3	Y	12	3	Y	10	6	3	Y	4	3	Y	28	6	3	Y	17	3	Y	5	3	Y	10	2	3	Y	6	3	Y	2	3	Y	24	6	1	N	18	3	Y	10	4	3	Y	6	3	Y	47	3	Y
42	IKS20EC043	K.M.Anshumanth	30	18	3	Y	12	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	23	6	1	N	17	3	Y	10	4	3	Y	6	3	Y	47	3	Y
43	IKS20EC045	Kavyana,G,S	47	9	1	N	8	3	Y	10	6	3	Y	4	3	Y	18	3	1	N	17	3	Y	3	1	N	5	1	1	N	3	1	N	1	1	N	10	0	0	N	10	2	N	8	3	Y	5	3	Y	23	0	N	
44	IKS20EC046	Kavya S M	27	16	3	Y	11	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	21	4	0	N	17	3	Y	10	4	3	Y	6	3	Y	36	3	Y
45	IKS20EC047	Keerthana BS	17	9	1	N	8	3	Y	10	6	3	Y	4	3	Y	16	2	0	N	14	3	Y	9	0	N	10	2	3	Y	6	3	Y	2	3	Y	13	4	0	N	9	0	N	10	4	3	Y	6	3	Y	24	0	N
46	IKS20EC048	Kiran Dev D	26	14	3	Y	12	3	Y	10	6	3	Y	4	3	Y	24	6	3	Y	18	3	Y	0	0	N	10	2	3	Y	6	3	Y	2	3	Y	23	6	1	N	17	3	Y	10	4	3	Y	6	3	Y	53	3	Y
47	IKS20EC049	KIRAN V NARAYAN	28	16	3	Y	12	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	22	4	0	N	18	3	Y	10	4	3	Y	6	3	Y	37	3	Y
48	IKS20EC050	KODIDELA,PRATHIMA	24	12	3	Y	12	3	Y	10	6	3	Y	4	3	Y	26	6	3	Y	17	3	Y	2	3	N	10	2	3	Y	6	3	Y	2	3	Y	29	11	3	Y	18	3	Y	10	4	3	Y	6	3	Y	41	3	Y
49	IKS20EC051	KUMAR,K G	24	16	3	Y	8	3	Y	10	6	3	Y	4	3	Y	26	6	3	Y	14	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	28	10	3	Y	18	3	Y	0	0	N	0	0	N	44	3	Y	
50	IKS20EC052	Kusumita VR	24	18	3	Y	6	1	N	10	6	3	Y	4	3	Y	24	6	3	Y	18	3	Y	0	0	N	10	2	3	Y	6	3	Y	2	3	Y	28	12	3	Y	16	3	Y	10	4	3	Y	6	3	Y	53	3	Y
51	IKS20EC053	M.Aruchumi	25	11	3	Y	12	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	14	3	Y	3	1	N	10	2	3	Y	6	3	Y	2	3	Y	26	8	3	Y	18	3	Y	10	4	3	Y	6	3	Y	31	1	N
52	IKS20EC054	MADHIKA	21	9	1	N	12	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	29	11	3	Y	18	3	Y	10	4	3	Y	6	3	Y	32	1	N
53	IKS20EC055	MAHESH BIJADAR	20	10	2	N	10	3	Y	10	6	3	Y	4	3	Y	23	6	3	Y	14	3	Y	3	1	N	10	2	3	Y	6	3	Y	2	3	Y	16	4	0	N	12	3	Y	9	4	3	Y	5	3	Y	36	3	Y
54	IKS20EC056	MAN ASWINI KM	15	13	3	Y	2	0	N	10	6	3	Y	4	3	Y	20	5	3	Y	13	3	Y	2	0	N	10	2	3	Y	6	3	Y	2	3	Y	28	6	1	N	18	3	Y	10	4	3	Y	6	3	Y	53	3	Y
55	IKS20EC057	Meghushree M	28	16	3	Y	12	3	Y	10	6	3	Y	4	3	Y	28	6	3	Y	16	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	29	12	3	Y	17	3	Y	10	4	3	Y	6	3	Y	38	3	Y
56	IKS20EC058	MOHAN KRISHNA K	27	15	3	Y	12	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	30	11	3	Y	10	4	3	Y	6	3	Y	32	1	N			
57	IKS20EC059	Nalayya	26	16	3	Y	10	3	Y	10	6	3	Y	4	3	Y	29	6	3	Y	17	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	29	11	3	Y	18	3	Y	10	4	3	Y	6	3	Y	39	3	Y
58	IKS20EC060	NALANI GOVTHAMI	12	6	0	N	6	1	N	10	6	3	Y	4	3	Y	18	6	3	Y	11	3	Y	1	0	N	5	1	1	N	3	1	N	1	1	N	10	3	0	N	7	0	N	10	4	3	Y	6	3	Y	25	0	N
59	IKS20EC061	NEHA CR	22	14	3	Y	8	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	22	4	0	N	18	3	Y	10	4	3	Y	6	3	Y	48	3	Y
60	IKS20EC062	NEHA NAGARAJ AIRANI	25	13	3	Y	12	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	24	0	N	3	0	N	15	3	Y	24	0	N	0	N			
61	IKS20EC063	VASANTH Kumar	16	14	3	Y	4	0	N	10	6	3	Y	4	3	Y	18	3	Y	8	0	N	0	0	N	5	1	1	N	3	1	N	1	1	N	10	0	N	12	3	Y	5	2	1	N	3	0	N	15	0	N	0	N
62	IKS20EC064	PAVANI C	21	15	3	Y	8	3	Y	10	6	3	Y	4	3	Y	28	6	3	Y	17	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	17	3	0	N	14	3	Y	10	4	3	Y	6	3	Y	29	0	N
63	IKS20EC065	Pavani TS	22	14	3	Y	8	3	Y	10	6	3	Y	4	3	Y	29	6	3	Y	17	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	23	5	0	N	16	3	Y	8	3	3	Y	5	3	Y	37	3	Y
64	IKS20EC066	Pradyumna S Kadhyap	23	15	3	Y	8	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y																																	

80	IKS20EC080	S Arun Kumar	20	12	3	Y	8	3	Y	10	6	3	Y	4	3	Y	25	6	3	Y	16	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	23	10	3	Y	11	3	Y	20	4	3	Y	6	3	Y	25	3	Y
81	IKS20EC084	Sachin NM	7	6	0	N	1	0	N	10	6	3	Y	4	3	Y	16	4	3	Y	12	3	Y	0	0	N	10	2	3	Y	6	3	Y	2	3	Y	12	3	0	N	9	0	N	10	4	3	Y	6	3	Y	25	0	N
82	IKS20EC085	SADHANA.SRINIVAS	22	13	3	Y	9	3	Y	10	6	3	Y	4	3	Y	28	5	3	Y	17	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	17	8	3	Y	9	0	N	10	4	3	Y	6	3	Y	26	3	Y
83	IKS20EC087	Sandeep Y H	20	12	3	Y	8	3	Y	10	6	3	Y	4	3	Y	28	6	3	Y	17	3	Y	0	0	N	10	2	3	Y	6	3	Y	2	3	Y	18	3	0	N	15	3	Y	10	4	3	Y	6	3	Y	27	3	Y
84	IKS20EC089	Sanjana.G	29	17	3	Y	12	3	Y	10	6	3	Y	4	3	Y	28	6	3	Y	16	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	23	8	3	Y	15	3	Y	10	4	3	Y	6	3	Y	24	2	N
85	IKS20EC091	Sanjana T Gadkar	24	12	3	Y	12	3	Y	10	6	3	Y	4	3	Y	20	4	3	Y	12	3	Y	4	3	Y	10	2	3	Y	6	3	Y	2	3	Y	19	4	0	N	15	3	Y	8	3	Y	5	3	Y	26	0	N	
86	IKS20EC092	Shukthi Antsahagam M	26	18	3	Y	8	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	26	8	3	Y	18	3	Y	10	4	3	Y	6	3	Y	33	2	N
87	IKS20EC093	Sharath M	23	13	3	Y	10	5	Y	10	6	2	Y	4	3	Y	29	6	3	Y	17	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	19	7	2	N	12	3	Y	10	4	3	Y	6	2	Y	51	3	Y
88	IKS20EC094	SHASHANK S	23	17	3	Y	6	1	N	10	6	3	Y	4	3	Y	27	6	3	Y	17	3	Y	4	3	Y	10	2	3	Y	6	3	Y	2	3	Y	18	0	0	N	18	3	Y	10	4	3	Y	6	3	Y	26	0	N
89	IKS20EC095	SHIVAREDDY B A	22	14	3	Y	8	3	Y	10	6	3	Y	4	3	Y	22	3	1	N	13	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	26	8	3	Y	18	3	Y	10	4	3	Y	6	3	Y	38	3	Y
90	IKS20EC096	Shreya H Padmanabha	23	15	3	Y	8	3	Y	10	6	3	Y	4	3	Y	26	4	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	23	6	1	N	17	3	Y	10	4	3	Y	6	3	Y	47	3	Y
91	IKS20EC097	Shreya M S	18	10	2	N	8	3	Y	10	6	3	Y	4	3	Y	25	4	3	Y	18	3	Y	3	1	N	10	2	3	Y	6	3	Y	2	3	Y	10	4	0	N	6	0	N	10	4	3	Y	6	3	Y	29	0	N
92	IKS20EC098	Shreyas p s sath	15	14	3	Y	1	0	N	10	6	3	Y	4	3	Y	22	5	3	Y	19	3	Y	1	0	N	10	2	3	Y	6	3	Y	2	3	Y	17	3	0	N	14	3	Y	10	4	3	Y	6	3	Y	29	0	N
93	IKS20EC099	SHWEITA DEEPAK K	24	14	3	Y	10	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	22	8	3	Y	14	3	Y	10	4	3	Y	6	3	Y	26	0	N
94	IKS20EC101	SONIKA R	28	16	3	Y	12	3	Y	10	6	3	Y	4	3	Y	28	6	3	Y	16	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	17	11	3	Y	6	0	N	10	4	3	Y	6	3	Y	31	1	N
95	IKS20EC102	SUMANAN.N	29	17	3	Y	12	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	24	8	3	Y	16	3	Y	10	4	3	Y	6	3	Y	39	3	Y
96	IKS20EC103	SUMUKHA.S	22	14	3	Y	8	3	Y	10	6	3	Y	4	3	Y	29	6	3	Y	17	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	16	3	0	N	13	3	Y	7	3	Y	4	3	Y	50	3	Y	
97	IKS20EC104	SURAKSHA.N	28	16	3	Y	12	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	30	12	3	Y	18	3	Y	10	4	3	Y	6	3	Y	42	3	Y
98	IKS20EC105	Tanum Prasanna	25	17	3	Y	8	3	Y	10	6	3	Y	4	3	Y	28	6	3	Y	16	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	22	7	2	N	15	3	Y	10	4	3	Y	6	3	Y	50	3	Y
99	IKS20EC106	TEJAS N REDDY	21	15	3	Y	6	1	N	10	6	3	Y	4	3	Y	16	4	3	Y	8	0	N	4	3	Y	5	1	1	N	1	1	N	17	3	0	N	14	3	Y	0	0	N	0	0	N	24	0	N				
100	IKS20EC107	T GIRISH CHOWDAK	13	12	3	Y	1	0	N	10	6	3	Y	4	3	Y	22	6	3	Y	12	3	Y	4	3	Y	10	2	3	Y	6	3	Y	2	3	Y	7	3	Y	4	3	Y	50	3	Y								
101	IKS20EC108	Uday C H	24	17	3	Y	12	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	23	10	3	Y	13	3	Y	10	4	3	Y	6	3	Y	38	3	Y
102	IKS20EC109	UJJWAL NAIDU	17	9	1	N	8	3	Y	10	6	3	Y	4	3	Y	21	6	3	Y	10	2	N	5	3	Y	10	2	3	Y	6	3	Y	2	3	Y	14	3	0	N	13	3	Y	10	4	3	Y	6	3	Y	42	3	Y
103	IKS20EC110	VAISHNAVIA	24	16	3	Y	8	3	Y	10	6	3	Y	4	3	Y	25	6	3	Y	15	3	Y	4	3	Y	10	2	3	Y	6	3	Y	2	3	Y	28	10	3	Y	18	3	Y	10	4	3	Y	6	3	Y	36	3	Y
104	IKS20EC111	Vishnuvi.V.H	22	14	3	Y	8	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	22	4	0	N	18	3	Y	10	4	3	Y	6	3	Y	36	3	Y
105	IKS20EC112	V Narsika	25	16	3	Y	9	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	18	5	0	N	13	3	Y	9	4	3	Y	5	3	Y	38	3	Y
106	IKS20EC113	Vignyalakshmi.K	23	13	3	Y	10	3	Y	10	6	3	Y	4	3	Y	26	3	1	N	18	3	Y	4	3	Y	10	2	3	Y	6	3	Y	2	3	Y	18	2	0	N	16	3	Y	10	4	3	Y	6	3	Y	38	3	Y
107	IKS20EC114	VINAY S P	39	11	3	Y	6	1	N	10	6	3	Y	4	3	Y	30	6	3	Y	18	3	Y	6	3	Y	10	2	3	Y	6	3	Y	2	3	Y	23	7	2	N	16	3	Y	10	4	3	Y	6	3	Y	35	1	N
108	IKS20EC115	VINAY SAGAR V ALLUR	9	15	3	Y	4	0	N	10	6	3	Y	4	3	Y	16	2	3	Y	8	0	N	3	1	N	9	2	3	Y	6	3	Y	1	1	N	8	2	0	N	6	0	N	10	4	3	Y	6	3	Y	35	2	N
109	IKS20EC116	VINEETHIMS	23	15	3	Y	8	3	Y	10	6	3	Y	4	3	Y	25	6	3	Y	15	3	Y	4	3	Y	10	2	3	Y	6	3	Y	2	3	Y	12	4	0	N	8	0	N	8	3	Y	5	3	Y	45	3	Y	
110	IKS20EC117	VISHALI A.S	28	16	3	Y	8	3	Y	10	6	3	Y	4	3	Y	29	6	3	Y	18	3	Y	5	3	Y	10	2	3	Y	6	3	Y	2	3	Y	A	0	0	N	0	0	N	10	4	3	Y	6	3	Y	48	3	Y
111	IKS20EC118	VISHWANTH Y	23	15	3	Y	8	3	Y	10	6	3	Y	4	3	Y	30	6	3	Y	1																																

Co-Po Mapping Table													
CO S.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13
CO1	1	3	1	1	2	3	3	-	3	3	1	2	3
CO2	3	3	1	1	2	3	3	-	3	3	1	2	3
CO3	3	2	1	1	2	1	1	-	1	1	1	1	2
CO4	1	2	1	1	2	1	1	-	1	1	1	1	2
CO5	3	3	3	2	2	1	1	-	1	1	1	2	3
Avg	3.00	2.60	1.60	1.20	2.00	1.80	1.80	-	1.80	1.80	1.60	2.60	2.00

PO Attainment

CO'S	CO Attainment	CO	PO	PO	PO	PO	PS	PS								
		REC	1	2	3	4	5	6	7	8	9	10	11	12	01	02
CO1	3.00	Y	3	3	1	1	3	3	3	-	3	3	1	2	3	2
CO2	3.00	Y	3	3	1	1	2	3	3	-	3	3	1	2	3	3
CO3	3.00	Y	3	2	1	1	2	1	1	-	1	1	1	1	2	2
CO4	2.10	Y	2.1	1.4	0.7	0.7	1.4	0.7	0.7	-	0.7	0.7	0.7	1.4	1.4	1.4
CO5	3	Y	3	3	3	2	2	1	1	-	1	1	1	1.33	3	2
Average			2.82	2.48	1.34	1.14	1.88	1.74	1.74	-	1.74	1.74	0.94	1.41	2.48	1.88