



**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BANGALORE - 560109**  
**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

## **Course File**

# **BPOPS103** **PRINCIPLES OF PROGRAMMING USING C**

**I Sem A 2023-24**

**Faculty In-charge**

**AMBUJA K**

Assistant Professor

Dept. of Computer science and Engineering  
K S School of Engineering & Management, Bangalore



**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BANGALORE - 560109**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**CONTENTS**

1. Front sheet (Cover page)
2. Vision and Mission of the Department
3. Syllabus
4. Calendar of Events
5. Time table (Individual)
6. Student list
7. Lesson plan
8. Question Bank
9. CO-PO mapping
10. Assignments ( 3 Assignments)
11. Internal Question paper and scheme (Set-A & Set-B) (3 Internals) - *transferred to Dept. file*
12. Previous year university question papers
13. Course Materials
  - Notes/PPT/ lecture videos/ Materials/other contents related to the subject
14. Additional teaching aid with proof (TPS/flip class/programming etc) (IF ANY)
15. Slow learners and Advanced learners list (after the first internals)
16. Assignments Marks (3 Assignments)
17. Internal Test Marks (3 Internals)
18. Internal Final Marks



## K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

### VISION

To impart quality education in engineering and management to meet technological, business and societal needs through holistic education and research.

### MISSION

K.S. School of Engineering and Management shall,

- Establish state-of-art infrastructure to facilitate effective dissemination of technical and Managerial knowledge.
- Provide comprehensive educational experience through a combination of curricular and Experiential learning, strengthened by industry-institute-interaction.
- Pursuesocially relevant research and disseminate knowledge.
- Inculcate leadership skills and foster entrepreneurial spirit among students.

## Department of Computer Science and Engineering

### VISION

To produce quality Computer Science professional, possessing excellent technical knowledge, skills, personality through education and research.

### MISSION

Department of Computer Science and Engineering shall,

- Provide good infrastructure and facilitate learning to become competent engineers who meet global challenges.
- Encourages industry instituteinteraction to give an edge to the students.
- Facilitates experimental learning through interdisciplinary projects.
- Strengthen soft skill to address global challenges.



Course Title:	<b>Principles of Programming using C</b>	
Course Code:	<b>BPOPS103/203</b>	CIE Marks 50
Course Type (Theory/Practical /Integrated )	Integrated	SEE Marks 50
		Total Marks 100
Teaching Hours/Week (L:T:P: S)	2:0:2	Exam Hours 3+2
Total Hours of Pedagogy	40 hours	Credits 03
	<b>Course Objectives:</b>  CLO 1. Elucidate the basic architecture and functionalities of a Computer CLO 2. Apply programming constructs of C language to solve the real-world problems CLO 3. Explore user-defined data structures like arrays, structures and pointers in implementing solutions to problems CLO 4. Design and Develop Solutions to problems using structured programming constructs such as functions and procedures	
	<b>Teaching-Learning Process (General Instructions)</b>  These are sample strategies, which teachers can use to accelerate the attainment of the various course outcomes. <ol style="list-style-type: none"> <li>1. Lecturer method (L) need not to be only traditional lecture method, but alternative effective teaching methods could be adopted to attain the outcomes.</li> <li>2. Use of Video/Animation to explain functioning of various concepts.</li> <li>3. Encourage collaborative (Group Learning) Learning in the class.</li> <li>4. Ask at least three HOT (Higher Order Thinking) questions in the class, which promote critical thinking.</li> <li>5. Adopt Problem Based Learning (PBL), which fosters students' Analytical skills, develop design thinking skills such as the ability to design, evaluate, generalize, and analyze information rather than simply recall it.</li> <li>6. Introduce Topics in manifold representations.</li> <li>7. Show the different ways to solve the same problem and encourage the students to come up with their own creative ways to solve them.</li> <li>8. Discuss how every concept can be applied to the real world and when that's possible, it helps to improve the students' understanding.</li> <li>9. Use <a href="https://pythontutor.com/visualize.html#mode=edit">https://pythontutor.com/visualize.html#mode=edit</a> in order to visualize the operations of C Programs</li> </ol>	
	<b>Module-1 (6 Hours of Pedagogy)</b>	
	<b>Introduction to C:</b> Introduction to computers, input and output devices, designing efficient programs. Introduction to C, Structure of C program, Files used in a C program, Compilers, Compiling and executing C programs, variables, constants, Input/output statements in C,  <b>Textbook:</b> Chapter 1.1-1.9, 2.1-2.2, 8.1 - 8.6, 9.1-9.14	
<b>Teaching-Learning Process</b>	Chalk and talk method/PowerPoint Presentation/ Web Content: <a href="https://tinyurl.com/4xmrexre">https://tinyurl.com/4xmrexre</a>	



<b>Module-2 (6 Hours of Pedagogy)</b>	
<p>Operators in C, Type conversion and typecasting.</p> <p><b>Decision control and Looping statements:</b> Introduction to decision control, Conditional branching statements, iterative statements, nested loops, break and continue statements, goto statement.</p> <p><b>Textbook: Chapter 9.15-9.16, 10.1-10.6</b></p>	
<b>Teaching-LearningProcess</b>	Chalkandtalkmethod/PowerPointPresentation
<b>Module-3 (8 Hours of Pedagogy)</b>	
<p>Functions: Introduction using functions, Function definition, function declaration, function call, return statement, passing parameters to functions, scope of variables, storage classes, recursive functions.</p> <p>Arrays: Declaration of arrays, accessing the elements of an array, storing values in arrays, Operations on arrays, Passing arrays to functions, two dimensional arrays, operations on two-dimensional arrays, two-dimensional arrays to functions, multidimensional arrays, applications of arrays.</p> <p>Textbook: Chapter 11.1-11.10, 12.1-12.10, 12.12</p>	
<b>Teaching-LearningProcess</b>	Chalkandtalkmethod/PowerPointPresentation
<b>Module-4 (6 Hours of Pedagogy)</b>	
<p><b>Strings and Pointers:</b> Introduction, string taxonomy, operations on strings, Miscellaneous string and character functions, arrays of strings. <b>Pointers:</b> Introduction to pointers, declaring pointer variables, Types of pointers, Passing arguments to functions using pointers</p> <p><b>Textbook: Chapter 13.1-13.6, 14-14.7</b></p>	
<b>Teaching-LearningProcess</b>	Chalkandtalkmethod/PowerPointPresentation
<b>Module-5 (6 Hours of Pedagogy)</b>	
<p><b>Structure, Union, and Enumerated Data Type:</b> Introduction, structures and functions, Unions, unions inside structures, Enumerated data type.</p> <p><b>Files:</b> Introduction to files, using files in C, reading and writing data files. , Detecting end of file</p> <p><b>Textbook: Chapter 15.1 – 15.10, 16.1-16.5</b></p>	
<b>Teaching-LearningProcess</b>	Chalkandtalkmethod/PowerPointPresentation
<p><b>CourseOutcomes(CourseSkillSet)</b></p> <p>Attheendofthecoursethestudentwillbeableto:</p> <p>CO1. Elucidate the basic architecture and functionalities of a computer and also recognize the hardware parts.</p> <p>CO 2. Apply programming constructs of C language to solve the real world problem</p> <p>CO 3.Explore user-defined data structures like arrays in implementing solutions to problems like searching and sorting</p> <p>CO 4.Explore user-defined data structures like structures, unions and pointers in implementing solutions</p>	



CO5.Design and Develop Solutions to problems using modular programming constructs using functions

### Programming Assignments

- 1 Simulation of a Simple Calculator.
- 2 Compute the roots of a quadratic equation by accepting the coefficients. Print appropriate messages.
- 3 An electricity board charges the following rates for the use of electricity: for the first 200 units 80 paise per unit; for the next 100 units 90 paise per unit; beyond 300 units Rs 1 per unit. All users are charged a minimum of Rs. 100 as meter charge. If the total amount is more than Rs 400, then an additional surcharge of 15% of total amount is charged. Write a program to read the name of the user, number of units consumed and print out the charges.
4. Write a C Program to display the following by reading the number of rows as input,

```

      1
    1 2 1
  1 2 3 2 1
1 2 3 4 3 2 1
-----
nth row

```

- 5 Implement Binary Search on Integers.
- 6 Implement Matrix multiplication and validate the rules of multiplication.
- 7 Compute  $\sin(x)/\cos(x)$  using Taylor series approximation. Compare your result with the built-in library function. Print both the results with appropriate inferences.
- 8 Sort the given set of N numbers using Bubble sort.
- 9 Write functions to implement string operations such as compare, concatenate, and find string length. Use the parameter passing techniques.
- 10 Implement structures to read, write and compute average- marks of the students, list the students scoring above and below the average marks for a class of N students.
- 11 Develop a program using pointers to compute the sum, mean and standard deviation of all elements stored in an array of N real numbers.
12. Write a C program to copy a text file to another, read both the input file name and target file name.

Note:

SEE marks for the practical course is 50 Marks.



continuous evaluation of the laboratory report. Each experiment report can be evaluated for 10 marks. Marks of all experiments' write-ups are added and scaled down to 15 marks.

- The laboratory test (**duration 03 hours**) at the end of the 15<sup>th</sup> week of the semester /after completion of all the experiments (whichever is early) shall be conducted for 50 marks and scaled down to **05 marks**.

Scaled-down marks of write-up evaluations and tests added will be CIE marks for the laboratory component of IC/IPCC for **20 marks**.

- The minimum marks to be secured in CIE to appear for SEE shall be 12 (40% of maximum marks) in the theory component and 08 (40% of maximum marks) in the practical component. The laboratory component of the IC/IPCC shall be for CIE only. However, in SEE, the questions from the laboratory component shall be included. The maximum of 05 questions is to be set from the practical component of IC/IPCC, the total marks of all questions should not be more than 25 marks.

The theory component of the IC shall be for both CIE and SEE.

#### **Semester End Examination:**

Theory SEE will be conducted by University as per the scheduled timetable, with common question papers for the subject (duration 03 hours)

1. The question paper will have ten questions. Each question is set for 20 marks. Marks scored shall be proportionally reduced to 50 marks.
2. There will be 2 questions from each module. Each of the two questions under a module (with a maximum of 3 sub-questions), should have a mix of topics under that module.
3. The students have to answer 5 full questions, selecting one full question from each module

#### **Suggested Learning Resources:**

##### **Textbooks**

1. Computer fundamentals and programming in c, "Reema Thareja", Oxford University, Second edition, 2017.

##### **Reference Books:**

1. E. Balaguruswamy, Programming in ANSI C, 7th Edition, Tata McGraw-Hill.
2. Brian W. Kernighan and Dennis M. Ritchie, The 'C' Programming Language, Prentice Hall of India.

##### **Web links and Video Lectures (e-Resources):**

1. [elearning.vtu.ac.in/econtent/courses/video/BS/15PCD23.html](http://elearning.vtu.ac.in/econtent/courses/video/BS/15PCD23.html)
2. <https://nptel.ac.in/courses/106/105/106105171/> MOOC courses can be adopted for more clarity in understanding the topics and verities of problem solving methods.



SEE shall be conducted jointly by the two examiners of the same institute, examiners are appointed by the University

All laboratory experiments are to be included for practical examination.

(Rubrics) Breakup of marks and the instructions printed on the cover page of the answer script to be strictly adhered to by the examiners. OR based on the course requirement evaluation rubrics shall be decided jointly by examiners.

Students can pick one question (experiment) from the questions lot prepared by the internal /external examiners jointly.

Evaluation of test write-up/ conduction procedure and result/viva will be conducted jointly by examiners.

General rubrics suggested for SEE are mentioned here, writeup-20%, Conduction procedure and result in -60%, Viva-voce 20% of maximum marks. SEE for practical shall be evaluated for 100 marks and scored marks shall be scaled down to 50 marks (however, based on course type, rubrics shall be decided by the examiners)

Students can pick one experiment from the questions lot with equal choice to all the students in a batch. Student should develop an algorithm, program, execute and demonstrate the results with appropriate output for the given problem.

Change of experiment is allowed only once and 15% Marks allotted to the procedure part to be made zero.

**The duration of SEE is 02 hours**

#### **Assessment Details (both CIE and SEE)**

The weightage of Continuous Internal Evaluation (CIE) is 50% and for Semester End Exam (SEE) is 50%. The minimum passing mark for the CIE is 40% of the maximum marks (20 marks out of 50). The minimum passing mark for the SEE is 35% of the maximum marks (18 marks out of 50). A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each subject/ course if the student secures not less than 35% (18 Marks out of 50) in the semester-end examination(SEE), and a minimum of 40% (40 marks out of 100) in the sum total of the CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) taken together.

#### **Continuous Internal Evaluation(CIE):**

The CIE marks for the theory component of the IC shall be **30 marks** and for the laboratory component **20 Marks**.

#### **CIE for the theory component of the IC**

- Three Tests each of 20 Marks; after the completion of the syllabus of 35-40%, 65-70%, and 90-100% respectively.
- Two Assignments/two quizzes/ seminars/one field survey and report presentation/one-course project totaling 20 marks.

Total Marks scored (test + assignments) out of 80 shall be scaled down to **30 marks**

#### **CIE for the practical component of the IC**

- On completion of every experiment/program in the laboratory, the students shall be evaluated and marks shall be awarded on the same day. The **15 marks** are for conducting the experiment and preparation of the laboratory record, the other **05 marks shall be for the test** conducted at the end of the semester.
- The CIE marks awarded in the case of the Practical component shall be based on the



3. <https://tinyurl.com/4xmrexre>

**Activity Based Learning (Suggested Activities in Class)/ Practical Based learning**

- Quizzes
- Assignments
- Seminars





**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU-560109**

**CALENDAR OF EVENTS: 1 ODD SEMESTER (2023-2024)**

**SESSION: SEP 2023 TO JAN 2024**

Week No.	Month	Day						Days	Activities
		Mon	Tue	Wed	Thu	Fri	Sat		
1	SEP	4 *	5	6	7	8	9	6	4th-12th Sep 2023 First sem Induction program J7:J24
2	SEP	11 **	12	13 *	14	15	16DH	5	11*-Inaugural function 13*-Commencement of 1 sem regular classes
3	SEP	18H	19	20	21	22	23	5	18-Varasiddhi Vinayaka Vrata 23-Monday Time Table
4	SEP	25	26	27	28H	29	30	5	28-Eid-Milad 30-Thursday Time Table
5	OCT	2H	3	4	5	6	7DH	4	2-Gandhi Jayanthi
6	OCT	9	10	11	12	13	14 H	5	14- Mahalaya Amavasya
7	OCT	16	17	18	19	20	21DH	5	
8	OCT	23H	24H	25	26	27	28H	4	23-Mahanavami, Ayudhapooja 24- Vijayadasami 28 - Maharshi Valmiki Jayanti
9	OCT/NOV	30	31	1H	2	3 TA	4DH	4	1-Kannada Rajyotsava
10	NOV	6 T1	7 T1	8 T1	9	10	11	6	11-Wednesday Time Table T1-06,07,08-1st Internal Test
11	NOV	13	14H	15 BV	16 ASD	17	18DH	4	14-Balipadyami, Deepavali
12	NOV	20	21	22	23	24	25	6	25- Wednesday Time Table
13	NOV/DEC	27	28	29	30H	1	2DH	4	30- Kanakadasa Jayanti
14	DEC	4 T2	5 T2	6 T2	7 SSTP	8 SSTP	9 SSTP	6	T2-04,05,06-2nd Internal Test 7th-11th Softskill Training Program
15	DEC	11 SSTP	12	13	14	15	16DH	5	
16	DEC	18	19	20	21	22	23 TA	6	23- Monday Time Table
17	DEC	25 H	26	27	28	29	30	5	25- Christmas
18	JAN	1 T3	2 T3	3 T3	4 LT	5 LT	6LT	6	T3-01,02,03-3rd Internal Test LT- 04,05,06 - Lab Test 6 - Last Working day

**Total No of Working Days : 91**

**Total Number of working days ( Excluding holidays and Tests)=79**

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

Monday	14
Tuesday	16
Wednesday	17
Thursday	16
Friday	18
Saturday	10
<b>Total</b>	<b>91</b>

*Dr. C. Vasudev*  
**Dr. C. VASUDEV**  
Professor & HOD  
Department of Applied Science  
K.S. School of Engineering & Management  
Bengaluru - 560 109

*Dr. K. Rama Narasimha*  
**Dr. K. RAMA NARASIMHA**  
Principal/Director  
K S School of Engineering and Management  
Bengaluru - 560 109





**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU-560109**  
**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**SESSION: 2023-2024(ODD SEMESTER)**

**(w. e. f 15/9/2023 )**

**INDIVIDUAL TIME TABLE**

**Class: I A & B**

**Faculty Name: Ms. Ambuja K**

DAY	8.40-9.35	9.35-10.30	10.30 -10.45	10.45 -11.40	11.40-12.35	12.35-1.20	1.20 -2.10	2.10-3.00	3.00-3.50
MONDAY	IOT (I B)		TEA BREAK			LUNCH BREAK			
TUESDAY	POP (I A)				POP (I A)		POP Lab Batch B1		
WEDNESDAY	POP Lab Batch A2						POP (I A)		IOT (I B)
THURSDAY		POP (I A)	TEA BREAK	DVP Lab Batch - B2			POP Lab Batch A1		
FRIDAY	POP Lab Batch B2						IOT (I B)		IOT (I B)
SATURDAY	AS PER CALENDAR OF EVENTS								
CODE	SUBJECT				Hours /Week	Ms. Ambuja K			
BPOPS103	Principles of Programming Using C				4				
BETCK105H	Introduction to Internet of Things				4				
BPOPS103	Principles of Programming Using C Laboratory				3				
18CSP77	Project Work Phase -1				1.5				

**Time Table Coordinator**

**Head of the Department**  
**HOD**

Department of Computer Science Engineering  
K.S School of Engineering & Management  
Bengaluru-560109

**Principal**  
**Dr. K. RAMA NARASIMHA**  
**Principal/Director**  
**K S School of Engineering and Management**  
**Bengaluru - 560 109**



K. S. SCHOOL OF ENGINEERING & MANAGEMENT, Bengaluru- 560109						
Semester- I	Physics group , With effect from 13.09.2023		Year:2023-24			
Section: A	Branch: CSE		Room No. A 104			
Sl.No.	Student Name	Mentors	Class Teacher	Lab Batches		
A1	A YASHWITHA		Mr. Sumantha H S	BATCH - 1		
A2	ADITYA H					
A3	AJITH KUMAR					
A4	AKASH S					
A5	AKHIL GOUTHAM K					
A6	AMAR					
A7	AMRUTHA K					
A8	ANKITHA P					
A9	ASHWINI N R					
A10	BHARATH KUMAR S C					
A11	BIASKAR S					
A12	BHAVYA SAI SHREE V					
A13	CHALLA BALAJI NAIDU					
A14	D JAYA KRISHNA					
A15	DEEKSHA N					
A16	DEEKSHITHA K					
A17	DHEERAJ R					
A18	DIVIT V					
A19	DYUTHI S					
A20	G DAEWOO SRI PRASAD					
A21	GABBURI NARASANNA PALLAVI					
A22	GADDAMADUGU DINAVYA			Mr. Sumantha H S	BATCH - 1	
A23	GANNI NAVEEN RAJ ANUDEEP					
A24	H VISHNU					
A25	HARI NARAYANA S					
A26	IMPANA P					
A27	INCHARA S					
A28	JANHVI SUDHAKAR THORAT					
A29	JHANAVI C					
A30	K BINDU					
A31	K DHEERAJ CHOWDARY					
A32	K P NIHAAL					
A33	K YESHWANTH CHOWDARY					
A34	KAMBHAMPATI VEDAVYAS					
A35	KARANAM VENNELA					
A36	KOTHA HARSHA NANDHAN					
A37	KUSHAL K R					
A38	LAKSHMI B					
A39	LALITH ADITHYA M					
A40	M NEVARUTH SAI					
A41	CHAITHANYA C GOWDA					
A42	ADITYA P MASABINAL					
A43	MEGHA				Mr. Sumantha H S	BATCH - 2
A44	KIRAN S					
A45	ANUSHA M N					
A46	SHASHIDHARA S C					
A47	MANIYA B M					
A48	HARSHITHA S					
A49	CHAITHANYA R					
A50	RISHMITHA K B					
A51	S AKSHATHA					
A52	D YASHAWANTHI					
A53	CHITRA U					
A54	LISHANTH N					
A55	M HARSHITH PRAMOD					
A56	ISMATH ZEHERA					
A57	MALLIKARJUNA BIRADAR					
A58	MANOJ KUMAR C					
A59	C YUVARAJ					
A60	SOURABH GOUD ALLOLLI					
A61	K G SOUMYA					
A62	DARSHAN GOWDA (1KG21CS025)					
A63						

*C. Vasudev*  
Dr. C. VASUDEV

Professor & HOD  
Department of Applied Science  
K.S. School of Engineering & Management  
Bangalore - 560 109





**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU - 560109**

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**SESSION: 2023-2024 (ODD SEMESTER)**

**LESSON PLAN**

**NAME OF THE STAFF : Ms. Ambuja K**

**SUBJECT CODE/TITLE :BPOPS103 /PRINCIPLES OF PROGRAMMING USING C**

**SEMESTER/ SEC/ YEAR : I / B / I Year**

Sl. No.	Topic to be covered	Mode of Delivery	Teaching Aid	No. of Periods	Cumulative No. of Periods	Proposed Date	Delivery Date
<b>MODULE 1</b>							
1	<b>Introduction:</b> Introduction to computers, History and classification of computers	L+D	BB	1	1	13/9/2023	13/9/23
2	Application of computers and Motherboard	L+ D	BB	1	2	14/9/2023	14/9/23
3	Input and Output devices	L+ D	BB	1	3	19/9/2023	15/9/23
4	Designing efficient programs	L+D	BB	1	4	19/9/2023	19/9/23
5	Introduction to C, Structure of C program	L+ D	BB	1	5	20/9/2023	20/9/23
6	Files used in a C program, Compilers, Compiling and executing C programs	L+D	BB	1	6	21/9/2023	21/9/23
7	variables, constants	L+ D	BB	1	7	26/9/2023	22/9/23
8	Input/output statements in C,	L+ D	BB	1	8	26/9/2023	27/9/23
9	<b>Practical:</b> Inside the computer Lab session	Practical	D	3	3	13/9/2023 14/9/2023	13/9/23 14/9/23



10	Tutorial	L+ D	BB	3	-	27/9/2023 3/10/2023 3/10/2023	—
<b>MODULE 2</b>							
11	Operators in C- Arithmetic, Relational, Equality, Logical, Unary, Conditional Operators	L+D	BB	1	9	4/10/2023	30/9/23
12	Bitwise, Assignment, Comma operator, sizeof operator , Operator precedence	L+ D	BB	1	10	5/10/2023	3/10/23
13	Type conversion and typecasting	L+ D	BB	1	11	10/10/2023	4/10/23
14	<b>Decision control:</b> Introduction to decision control, Conditional branching statements- if statement, if-else statement	L+D	BB	1	12	10/10/2023	5/10/23
15	branching statements –if-else-if and switch statements	L+ D	BB	1	13	11/10/2023	6/10/23
16	<b>Looping statements:</b> Introduction to iterative statements- while, do-while and for loop.	L+D	BB	1	14	12/10/2023	10/10/23
17	Nested loops, break statements	L+ D	BB	1	15	17/10/2023	10/10/23
18	Continue statements, goto statement	L+ D	BB	1	16	17/10/2023	11/10/23
19	<b>Practical:</b> 1.Simulation of a Simple Calculator. 2. Compute the roots of a quadratic equation by accepting the coefficients. Print appropriate messages. Generate electricity bill Write a program to read the name of the user, number of units consumed and print out the charges.	Practical	D	6	9	20/10/2023 21/10/2023 27/10/2023 5/11/023	21/9/23 30/9/23 20/9/23 27/9/23
20	Tutorial	L+D	BB	2	-	18/10/2023 19/10/2023	—
<b>MODULE 3</b>							
21	<b>Functions:</b> Introduction using functions, Function definition, function declaration, function call, return	L+D	BB	1	17	25/10/2023	17/10/23



	statement						
22	Passing parameters to functions	L+ D	BB	1	18	26/10/2023	17/10/23
23	Scope of variables, storage classes	L+ D	BB	1	19	31/10/2023	25/10/23
24	Recursive functions- GCD, Finding Exponents, Fibonacci series	L+D	BB	1	20	31/10/2023	26/10/23
25	<b>Arrays:</b> Declaration of arrays, accessing the elements of an array, storing values in arrays	L+ D	BB	1	21	2/11/2023	31/10/23
26	Operations on arrays - Traversing, Insertion, deletion, Merging, Searching, Passing arrays to functions	L+D	BB	1	22	9/11/2023	2/11/23
27	Two dimensional arrays, operations on two-dimensional arrays, two dimensional arrays to functions	L+ D	BB	1	23	11/11/2023	9/11/23
28	Multidimensional arrays, applications of arrays	L+ D	BB	1	24	15/11/2023	11/11/23
29	<b>Practical:</b> 1. Write a C Program to display the number pattern by reading the number of rows as input. 2. Implement Binary Search on Integers. 3. Implement Matrix multiplication and validate the rules of multiplication.	Practical	D	6	15	4/11/2023 11/11/2023 12/11/2023 18/11/2023	5/10/23 12/10/23 19/10/23 4/10/23 11/10/23, 18/10/23
30	Tutorial	L+D	BB	2	-	16/11/2023 21/11/2023	30/11/23
<b>MODULE 4</b>							
31	<b>Strings:</b> Introduction to strings, string taxonomy.	L+D	BB+LCD	1	25	22/11/2023	16/11/23
32	Operations on strings – string length, string case, Concatenation, appending, comparing, and Reversing a string.	L+ D	BB+LCD	1	26	23/11/2023	21/11/23
33	Extracting a substring, Inserting, Indexing, Deleting a string, Replacing a pattern	L+ D	BB+LCD	1	27	25/11/2023	22/11/23
34	Miscellaneous string and character functions: Character manipulation functions, String Manipulation functions, arrays of strings	L+D	BB+LCD	1	28	28/11/2023	22/11/23



35	<b>Pointers:</b> Introduction to pointers, declaring pointer variables	L+ D	BB+LCD	1	29	28/11/2023	23/11/23
36	Types of pointers, Passing arguments to functions using pointers	L+D	BB+LCD	1	30	29/11/2023	25/11/23
39	<b>Practical:</b> 1. Compute $\sin(x)/\cos(x)$ using Taylor series approximation. Compare your result with the built-in library function. 2. Sort the given set of N numbers using Bubble sort. 3. Write functions to implement string operations such as compare, concatenate, and find string length. Use the Parameter passing techniques.	Practical	D	6	21	19/11/2023 25/11/2023 26/11/2023 15/12/2023	26/10/23 2/11/23 9/11/23 25/10/23 11/11/23
40	Tutorial	L+D	BB	2	-	12/12/2023 13/12/2023	27/11/23 14/12/23
<b>MODULE 5</b>							
41	<b>Structure,</b> Introduction, structure Declaration, Initialization, accessing the members,	L+D	BB+LCD	1	33	14/12/2023	28/11/23
42	Copying and comparing structures, Nested structures, Self-referential structures and structures and functions	L+ D	BB+LCD	1	34	19/12/2023	29/11/23
43	<b>Union:</b> Declaring, Initializing, Accessing a members of unions, arrays of unions, union inside structure, structure inside union	L+ D	BB+LCD	1	35	19/12/2023	12/12/23
44	<b>Enumerated Data Type:</b> enum variables, using typedef keyword, Enumeration type conversion, I/O operations	L+D	BB+LCD	1	36	20/12/2023	12/12/23
45	<b>Files:</b> Introduction to files, Using Files in C,	L+ D	BB+LCD	1	37	21/12/2023	13/12/23
46	Reading data from files, Writing data to files, Detecting End-of-File	L+D	BB+LCD	1	38	26/12/2023	14/12/23
49	<b>Practical:</b> 1. Implement structures to read, write and compute average- marks of the students, list the students scoring above and below the average marks for a class of	Practical	D	6	27	2/12/2023	16/11/23 14/12/23 2/12/23



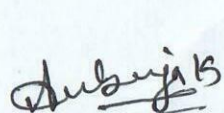
	N students. 2. Develop a program using pointers to compute the sum, mean and standard deviation of all elements stored in an array of N real numbers. 3. Write a C program to copy a text file to another, read both the input file name and target file name.					9/12/2023 15/12/2023 16/12/2023	15/11/23 13/12/23 20/12/23
50	Tutorial	L+D	BB	1	-	26/12/2023	15/12/23
	Revision	L+D	BB	2	-	27/12/2023 28/12/2023	20/12/23 20/12/23 21/12/23

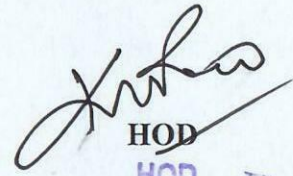
	Week	Remarks
Assignment 1	4 <sup>th</sup> Week - 16/10/2023	Mode of Assignment – Written Assignment
Assignment 2	6 <sup>th</sup> Week- 20/11/2023	

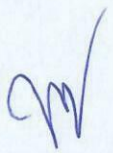
Total No. of Lecture Hours = 40


Total No. of Tutorial Hours = 10

Total No. of Practical Hours = 20

  
Course In charge

  
HOD  
HOD  
Department of Computer Science Engineering  
K.S School of Engineering & Management  
Bangalore-560109

  
IQAC Coordinator

  
Principal  
Dr. K. RAMA NARASIMHA  
Principal/Director  
K S School of Engineering and Management  
Bengaluru - 560 109

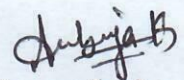


**FIRST ASSIGNMENT**

Degree : B.E  
 Branch : CSE/ AI & DS  
 Course Title : Principles of Programming using C  
 Date : 16/10/2023

Semester : I  
 Course Code : BPOPS103  
 Max Marks : 25  
 Last Date for submission : 25/10/2023

Q No.	Question	Marks	K-Level	CO mapping
1	a) <b>Define</b> computer. <b>Explain</b> characteristics of computers? b) <b>Demonstrate</b> the classification of Computers? c) <b>List</b> and <b>Explain</b> the generations of computer? <b>Discuss</b> applications of computers.	5	Understanding K2	CO1
2	a) <b>List</b> and <b>Explain</b> input and output devices? b) <b>Explain</b> the organization of basic computer model with neat diagram? c) <b>Demonstrate</b> the structure of C program with example.	5	Understanding K2	CO1
3	a) <b>Define</b> variable. <b>Explain</b> the rules to declare variable with example. b) <b>Explain</b> different data types used in C with syntax? c) <b>Explain</b> the Input and Output statements in C language with syntax and examples.	5	Understanding K2	CO1
4	a) <b>Write</b> a C program to compute the roots of quadratic equation by accepting the coefficients print appropriate messages. b) <b>Define</b> operators. <b>Explain</b> different types of operators with examples. c) <b>Demonstrate</b> the concept of type conversion with example.	5	Applying K3	CO2
5	a) <b>Illustrate</b> the conditional statements with syntax, flow diagram and sample program. b) <b>Write</b> a C program to find the largest number among three numbers using ternary operator?	5	Applying K3	CO2

  
 Course Incharge

  
 HOD

HOD  
 Department of Computer Science Engineering  
 K.S School of Engineering & Management  
 Bangalore-560109





**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BANGALORE - 560109**  
**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**  
**SESSION: 2023-2024 (ODD SEMESTER)**

**SECOND ASSIGNMENT**

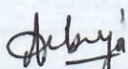
Degree : B.E  
Branch : CSE/ AI&DS  
Course Title : Principles of Programming using C  
Date : 21/11/2023

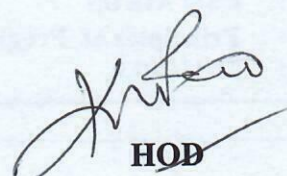
Semester : I (A,B,C)  
Course Code : BPOPS103/203  
Max Marks : 25  
Last Date for submission : 29/11/2023

Q No.	Question	Marks	K-Level	CO mapping
1(a)	Define looping. Explain for, while and do-while with suitable example.	5	Applying (K3)	CO2
(b)	Distinguish between the break and continue statement.		Applying (K3)	
2(a)	Explain the working of goto statement in C with example.	5	Applying (K3)	CO2
(b)	Write a C program to print whether a given number is palindrome or not.		Applying (K3)	
3(a)	Discuss the implementation of user defined function with suitable example.	5	Applying (K3)	CO3
(b)	Develop a C program to swapping of 2 numbers using call by reference and call by value.		Applying (K3)	
(c)	Illustrate the working of recursion with suitable example.		Applying (K3)	
4(a)	Define an array? Explain the declaration and initialization of one dimensional and two dimensional arrays with an example.	5	Applying (K3)	CO3
(b)	Elaborate various scope of variables.		Applying (K3)	
(c)	Develop a C program to transpose and addition of MxN matrix.		Applying (K3)	
5(a)	Write a C program to implement Bubble sort technique (ascending order).	5	Applying (K3)	CO3



(b)	<b>Describe</b> the various storage classes.		<b>Applying</b> <b>(K3)</b>	<b>CO3</b>
(c)	<b>Discuss</b> any three operations that can be performed on arrays with example.		<b>Applying</b> <b>(K3)</b>	
(d)	<b>Develop</b> a C program to implement Binary search on integers.		<b>Applying</b> <b>(K3)</b>	<b>CO3</b>

  
Course Incharge

  
**HOD**  
**HOD**  
Department of Computer Science Engineering  
K.S School of Engineering & Management  
Bangalore-560109





# K. S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU - 560109

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

2023 -24 (ODD SEM) CO-PO Mapping

Course: Principles of Programming Using C			
Type: Core		Course Code: BPOPS103	
No of Hours			
Theory (Lecture Class)	Practical/Field Work/Allied Activities	Total/Week	Total teaching hours
3	1	4	40
Marks			
Internal Assessment	Examination	Total	Credits
50	50	100	3
<b>Aim/Objective of the Course:</b>			
<div><div></div><div>1. Elucidate the basic architecture and functionalities of a Computer.</div><div>2. Apply programming constructs of C language to solve the real-world problems</div><div>3. Explore user-defined data structures like arrays, structures and pointers in implementing solutions to problems</div><div>4. Design and Develop Solutions to problems using modular programming constructs such as functions and procedures.</div></div>			
<b>Course Learning Outcomes</b>			
After completing the course, the students will be able to:			
CO1	Understand the basic architecture and functionalities of a computer and also recognize the hardware parts.		Understanding (K2)
CO2	Applying different programming constructs using conditional branching and loops to solve real-world problems.		Applying (K3)
CO3	Implement sorting and searching Techniques by using arrays. Make use of the functions and recursion to implement programs like Fibonacci and factorial.		Applying (K3)
CO4	Solve a given problem by making use of pointers and strings.		Applying (K3)
CO5	Explore user-defined data structures such as structures, unions and Enumerated data type.		Applying (K3)
Syllabus Content			
MODULE 1: Introduction to C: Introduction to computers, input and output devices, designing efficient programs. Introduction to C, Structure of C program, Files used in a C program, Compilers, Compiling and executing C programs, variables, constants,			CO1 6hrs  PO1-2 PO2-2



Input/output statements in C. <b>LO:</b> At the end of this session the student will be able to, <ol style="list-style-type: none"> <li>1. Identify the need of Computer system.</li> <li>2. Understand Primary and Secondary memory.</li> <li>3. Understand Basic structure of C program.</li> <li>4. Acquire the knowledge to write the programs and execute.</li> </ol>	PO12 -1 PSO1-3 PSO2-1
--	-----------------------------

<b>MODULE 2 :</b> Operators in C, Type conversion and typecasting. <b>Decision control and Looping statements:</b> Introduction to decision control, Conditional branching statements, iterative statements, nested loops, break and continue statements, goto statement. <b>LO:</b> At the end of this session the student will be able to, <ol style="list-style-type: none"> <li>1. Demonstrate different kinds of operators to solve the expressions.</li> <li>2. Understand Conditional Branching and Un-Conditional Branching.</li> <li>3. Distinguishing between Entry Controlled and Exit Controlled loops.</li> </ol>	CO2 6hrs  PO1-3 PO2-3 PO3-3 PO4-2 PO12-2 PSO1-3 PSO2-1
--	---

<b>MODULE 3 :</b> <b>Functions:</b> Introduction using functions, Function definition, function declaration, function call, return statement, passing parameters to functions, scope of variables, storage classes, recursive functions. <b>Arrays:</b> Declaration of arrays, accessing the elements of an array, storing values in arrays, Operations on arrays, Passing arrays to functions, two dimensional arrays, operations on two-dimensional arrays, two dimensional arrays to functions, multi-dimensional arrays, applications of arrays. <b>LO:</b> At the end of this session the student will be able to, <ol style="list-style-type: none"> <li>1. Understand Functions concepts.</li> <li>2. Understand 1-dimensional and 2-dimensional arrays, declare arrays, perform operations on arrays.</li> <li>3. Implement passing arrays to functions with a suitable example.</li> </ol>	CO3 8hrs  PO1-3 PO2-3 PO3-3 PO4-1 PO12-1 PSO1-3 PSO2-1
---	---

<b>MODULE 4:</b> <b>Strings and Pointers:</b> Introduction, string taxonomy, operations on strings, Miscellaneous string and character functions, arrays of strings. <b>Pointers:</b> Introduction to pointers, declaring pointer variables, Types of pointers, Passing arguments to functions using pointers.	CO4 6hrs  PO1-3 PO2-3 PO3-3 PO4-1
--	---



<p><b>LO:</b> At the end of this session the student will be able to,</p> <ol style="list-style-type: none"> <li>1. Understand strings and perform the operations on strings.</li> <li>2. Understand pointers, types of pointers.</li> <li>3. Demonstrate the concept of Passing arguments to functions with a suitable example.</li> </ol>	<p>PO12-1 PSO1-3 PSO2-1</p>
<p><b>MODULE 5:</b></p> <p><b>Structure, Union, and Enumerated Data Type:</b> Introduction, structures and functions, Unions, unions inside structures, Enumerated data type.</p> <p><b>Files:</b> Introduction to files, using files in C, reading and writing data files. , Detecting end of file</p> <p><b>LO:</b> At the end of this session the student will be able to,</p> <ol style="list-style-type: none"> <li>1. Defining astructure, accessing members of a structure.</li> <li>2. Understand the knowledge of unions and enumerated data type.</li> <li>3. Illustrate different kinds of files, read and write data files and detecting end of the filewith an example.</li> </ol>	<p>CO5 6hrs</p> <p>PO1-3 PO2-3 PO3-2 PO4-1 PO12-1 PSO1-3 PSO2-1</p>
<p><b>Text Books: -</b></p> <ol style="list-style-type: none"> <li>1. Computer fundamentals and programming in C, "ReemaThareja", Oxford University, Second edition, 2017.</li> </ol>	
<p><b>Reference Books:</b></p> <ol style="list-style-type: none"> <li>1. E. Balaguruswamy, Programmingin ANSI C, 7<sup>th</sup> Edition, TataMcGraw-Hill.</li> <li>2. Brian W. Kernighan and Dennis M. Ritchie, The'C'Programming Language, Prentice Hall of India.</li> </ol>	
<p><b>Useful Websites.</b></p> <ol style="list-style-type: none"> <li>1. elearning.vtu.ac.in/econtent/courses/video/BS/15PCD23.html.</li> <li>2. <a href="https://nptel.ac.in/courses/106/105/106105171/">https://nptel.ac.in/courses/106/105/106105171/</a> MOOC courses can be adopted for more clarity in Understanding the topics and various problem solving methods.</li> <li>3. <a href="https://tinyurl.com/4xmrexre">https://tinyurl.com/4xmrexre</a>.</li> </ol>	
<p><b>Useful Journals</b></p> <ul style="list-style-type: none"> <li>● International Journal of Engineering Research &amp; Technology</li> <li>● International Journal of Innovative Research in Technology</li> </ul>	
<p><b>Teaching and Learning Methods:</b></p> <ol style="list-style-type: none"> <li>1. Lecture class: 40 hrs.</li> <li>2. Group Discussions (tutorial): 1hr.</li> </ol>	



3. Problem Solving (tutorial): 5hr.

**Assessment:**

**Type of test/examination:** Written examination

**Continuous Internal Evaluation(CIE) :** 50

**Semester End Exam(SEE) :** 50 marks (students have to answer all main questions)

**Test duration:** 1 hr

**Examination duration:** 3 hr

**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& Team Work
<b>PO4:</b> Investigations of Complex Problems	<b>PO10:</b> Communication
<b>PO5:</b> Modern Tool Usage	<b>PO11:</b> ProjectMngmt& Finance
<b>PO6:</b> Engineer & Society	<b>PO12:</b> Lifelong Learning

**PSO1:** Understand fundamental and advanced concepts in the core areas of Computer Science and Engineering to analyze, design and implement the solutions for the real world problems.

**PSO2:** Utilize modern technological innovations efficiently in various applications to work towards the betterment of society and solve engineering problems.

CO	PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2
21PS P23	K-level														
CO1	K2	2	2	-	-	-	-	-	-	-	-	-	2	3	1
CO2	K2	3	3	3	2	-	-	-	-	-	-	-	2	3	1
CO3	K3	3	3	3	1	-	-	-	-	-	-	-	1	3	1
CO4	K3	3	3	3	1	-	-	-	-	-	-	-	1	3	1
CO5	K3	3	3	2	1	-	-	-	-	-	-	-	1	3	1

Course In charge

HOD

IQAC Coordinator

Principal

HOD  
Department of Computer Science Engineering  
K.S School of Engineering & Management  
Bangalore-560109

Dr. K. RAMA NARASIMHA  
Principal/Director  
K S School of Engineering and Management  
Bengaluru - 560 109



**First Semester B.E./B.Tech. Degree Examination, Jan./Feb. 2023**  
**Principles of Programming using C**

Time: 3 hrs.

Max. Marks: 100

- Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.  
 2. VTU Formula Hand Book is permitted.  
 3. M : Marks , L: Bloom's level , C: Course outcomes.*

Module – 1			M	L	C
Q.1	a.	Explain the organization of Basic computer model with neat diagram.	8	L1	CO2
	b.	Explain Input/Output statement in C.	8	L1	CO2
	c.	List and explain any two input-output devices.	4	L1	CO2
OR					
Q.2	a.	What are the basic datatypes available in C?	6	L2	CO2
	b.	Define variable. Explain the rules to declare a variable with example.	6	L2	CO2
	c.	With suitable example – Explain the basic structure of C program.	8	L2	CO2
Module – 2					
Q.3	a.	What is type casting? Explain its types with suitable example.	6	L2	CO2
	b.	Write a C program to find the largest of three numbers using ternary operator.	6	L3	CO2
	c.	List and explain unconditional branching statements with example.	8	L1	CO2
OR					
Q.4	a.	List the conditional branching statements in 'C'. Explain any two with example.	6	L1	CO2
	b.	Write a C program to compute the roots of a quadratic equation by accepting the coefficients print appropriate messages.	6	L3	CO2
	c.	Explain different types of loops in C. Justify with its syntax and example.	8	L2	CO2
Module – 3					
Q.5	a.	Define an array. Explain with example. How to declare and initialize 2D-array.	6	L2	CO3
	b.	Write a C program to search an element using binary search technique (for numericals).	6	L3	CO3
	c.	Write a C program to perform addition of 2-dimensional matrix (consider 3×3 ordered matrices A and B).	8	L3	CO3
OR					



Q.6	a.	Define function. Explain the type of functions based on parameters.	8	L2	CO3
	b.	Write a C program to sort the elements using bubble sort technique by passing array as function argument.	6	L3	CO4
	c.	Write a C program to find the $n_c$ . $\left[ n_c = \frac{n!}{(n-r)!r!} \right]$	6	L3	CO3
<b>Module – 4</b>					
Q.7	a.	Define a string. List the string manipulation functions. Explain any two with examples.	8	L2	CO2
	b.	Write a C program to find the length of a given string without using built-in function.	6	L3	CO3
	c.	Write a C program to check whether the given string is Palindrome or not without using built in function.	6	L3	CO2
<b>OR</b>					
Q.8	a.	Define Pointer. Explain how the pointer is declared and initialized with example.	6	L2	CO4
	b.	Write a C program using pointers to compute the sum, mean and standard deviation of all elements stored in an array of 'n' real numbers.	8	L3	CO4
	c.	Write a C program to replace each constant in a string with the text one except letter 'z', 'Z' and 'a' 'A', for the string "Corona Virus" should be modified as "DpSboa Wjsvt".	6	L3	CO3
<b>Module – 5</b>					
Q.9	a.	Differentiate between structures and Union.	6	L2	CO4
	b.	Write a C program to implement structures to read and write Book-Title, Book-Author and Book-id of n books.	8	L3	CO3
	c.	Write a note on files.	6	L3	CO4
<b>OR</b>					
Q.10	a.	List and explain any four file operations in C.	6	L2	CO2
	b.	Write a C program to store and print name, USN, Subject and IA marks of students using structure.	8	L3	CO4
	c.	Write a note on enumerated data type.	6	L2	CO4



# CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

BPOPS103/203

**First/Second Semester B.E./B.Tech. Degree Examination, Dec.2023/Jan.2024**

## Principles of Programming Using C

Time: 3 hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.*

*2. M : Marks , L: Bloom's level , C: Course outcomes.*

Module – 1			M	L	C
Q.1	a.	Define a Computer. Explain the characteristics of a digital computer.	10	L1	CO1
	b.	Explain the basic structure of a C program with a neat diagram.	10	L1	CO1
OR					
Q.2	a.	With a neat diagram explain the steps in the execution of C program.	10	L1	CO1
	b.	Explain the input and output statements in C with examples for each.	10	L2	CO1
Module – 2					
Q.3	a.	Explain the various operators in C.	10	L2	CO1
	b.	Explain the different forms of if statement with flowcharts.	10	L1	CO2
OR					
Q.4	a.	Explain the switch statement with an example.	10	L2 L3	CO2
	b.	Explain break and continue statements with examples for each.	04	L2 L3	CO2
	c.	Write a C program to find the largest of 3 numbers using nested if statement.	06	L3	CO2
Module – 3					
Q.5	a.	Discuss in detail the parts of a user-defined function.	10	L2	CO3
	b.	Discuss the storage classes in C.	10	L2	CO3
OR					
Q.6	a.	Define recursion. Write a C program to find the factorial of 'n' using recursion.	05	L1 L3	CO3
	b.	What is an array? Explain the declaration and initialization of 1-D arrays.	05	L1 L2	CO3
	c.	Write a C program to perform Matrix Multiplication.	10	L3	CO3
Module – 4					
Q.7	a.	Write functions to implement string operations such as compare concatenate and string length. Convince the parameter passing techniques.	10	L3	CO4
	b.	Develop a program using pointers to compute, sum, mean and standard deviation of all the elements stored in an array.	10	L3	CO4
OR					
Q.8	a.	Define a pointer. Discuss the declaration of pointer variables.	05	L2	CO4
	b.	Discuss the various string handling functions in C.	10	L2	CO4
	c.	Write a C program to swap two numbers using call by reference technique.	05	L3	CO4
Module – 5					
Q.9	a.	Define a structure. Explain the types of structure declarations with examples for each.	10	L1	CO4
	b.	Implement structures to read, write and compute average marks and the students scoring below and above average in a class of 'N' students.	10	L3	CO4
OR					
Q.10	a.	Differentiate between structures and union.	06	L2	CO5
	b.	Define a structure by name DOB consisting of three members dd, mm and yy. Develop a C program that would read values to the individual member and display the date in the form dd/mm/yyyy.	06	L3	CO5
	c.	Explain the various file operations with syntax for each.	08	L2	CO5

\*\*\*\*\*





**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BANGALORE - 560109**  
**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**SESSION: 2023-2024 (ODD SEMESTER)**  
**I SESSIONAL TEST QUESTION PAPER**  
**SET-B**

USN

Degree : B.E  
Branch : CSE/AI&DS  
Course Title : Principles of Programming Using C  
Duration : 75 Minutes

Semester : II (A,B,C)  
Course Code : BPOPS103  
Date : 07-11-2023  
Max Marks : 25

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

Q No.	Question	Marks	K-Level	CO mapping
<b>PART-A</b>				
1(a)	<b>Define</b> Computers. <b>Summarize</b> the characteristics of computers.	5	Understanding K2	CO1
(b)	<b>List</b> and <b>Explain</b> the classification of computers.	5	Understanding K2	CO1
(c)	<b>Define</b> algorithm. <b>Explain</b> control structures used in Algorithm.	5	Understanding K2	CO1
<b>OR</b>				
2(a)	<b>Demonstrate</b> the basic organization of a computer with a neat block diagram.	5	Understanding K2	CO1
(b)	<b>Discuss</b> the structure of a C program.	5	Understanding K2	CO1
(c)	<b>Define</b> flowchart? <b>Describe</b> the symbols used in flowchart.	5	Understanding K2	CO1
<b>PART-B</b>				
3(a)	<b>Explain</b> the concept increment and decrement operator with an example.	5	Applying K3	CO2
(b)	<b>Define</b> variable. <b>Illustrate</b> the rules to declare variable with example.	5	Applying K3	CO2
<b>OR</b>				
4(a)	<b>Develop</b> a C program to find the largest number among three numbers using ternary operator.	5	Applying K3	CO2
(b)	<b>Demonstrate</b> the following with syntax and example: (i) if-else (ii) switch.	5	Applying K3	CO2

Course Incharge

HOD

IQAC- Coordinator

Principal

HOD  
Department of Computer Science Engineering  
K.S School of Engineering & Management  
Bangalore-560109

Dr. K. RAMA NARASIMHA  
Principal/Director  
K S School of Engineering and Management  
Bangalore - 560 109



# CBCS SCHEME

USN

1 K G 2 2 C S O 8 9

BPOPS103/203

## First/Second Semester B.E /B.Tech. Degree Examination, June/July 2023 Principles of Programming Using C

Time: 3 hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.  
2. M : Marks, L: Bloom's level, C: Course outcomes.*

Module - 1			M	L	C
Q.1	a.	Define Computer. Describe the characteristics of computer in detail.	10	L2	CO1
	b.	Explain various Input devices.	10	L2	CO1
OR					
Q.2	a.	Explain the following programming paradigms. i) Procedural Programming ii) Structured Programming iii) Object Oriented Programming.	10	L2	CO2
	b.	Explain printf() and scanf() functions with their syntax. Give the illustrative examples.	10	L2	CO2
Module - 2					
Q.3	a.	Explain any five types of operators in C language with the illustrative examples.	10	L2	CO2
	b.	Write a C program to find the roots of quadratic equation by accepting the coefficients. Print appropriate messages.	10	L3	CO2
OR					
Q.4	a.	What are iterative statements? Explain three types of iterative statements with their syntax.	10	L2	CO2
	b.	Write a program to print the following pattern. <div style="text-align: center;">1 1 2 1 2 3 1 2 3 4</div>	10	L3	CO2
Module - 3					
Q.5	a.	Explain the syntax of function declaration and function definition with example.	06	L2	CO2, CO5
	b.	Write a C program to swap two numbers using call by reference method.	06	L3	CO2, CO5
	c.	Describe different types of storage classes with examples.	08	L2	CO2
OR					
Q.6	a.	What is an array? Explain how arrays are declared and initialized with example.	08	L2	CO3
	b.	Write a C program to transpose a 3x3 matrix.	08	L3	CO3
	c.	List applications of arrays.	04	L3	CO3



## Module -- 4

Q.7	a.	Write a C program to convert characters of a string into upper case without using built-in function.	10	L3	CO3
	b.	Discuss the working of the following string manipulation functions with suitable examples. i) strcmp ii) strlen iii) strcpy iv) strcat v) strcmp	10	L2	CO3

## OR

Q.8	a.	Define Pointer. Explain the declaration of a pointer variable with an example.	05	L2	CO2, CO4
	b.	Mention the applications of pointers.	05	L2	CO4
	c.	Develop a C program to compute the sum, mean and standard deviation of all elements of an array using pointers.	10	L3	CO3, CO4

## Module -- 5

Q.9	a.	What is structure? Explain the declaration of a structure with an example.	06	L2	CO4
	b.	Differentiate between Structures and Unions.	06	L3	CO4
	c.	Develop a C program to read and display the information of all the students in the class.	08	L3	CO4

## OR

Q.10	a.	Define Enumerated datatype. Explain the declaration and access of enumerated datatypes with a code in C.	06	L2	CO2
	b.	Explain the process of opening a file in C.	06	L2	CO2
	c.	Write a C program to demonstrate fwrite( ) function.	08	L3	CO2

\*\*\*\*\*





K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BANGALORE - 560109

DEPARTMENT OF BASIC SCIENCE

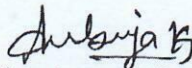
Attendance for Remedial Class

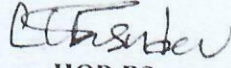
Class/ Section: I A

Subject/ Subject code: Principles of Programming Using C/ BPOPS103

Date: 12/12/2023

Sl.No	Student Name	USN	Signature
1	A YASHWITHA		Yal -
2	AKHIL GOUTHAM K		Akhil
3	AMAR		Amar
4	BHARATH KUMAR S C		Bharath S.C.
5	BHASKAR S		Bhaskar S.
6	BHAVYA SAI SHREE V		Bhavya
7	CHALLA BALAJI NAIDU		Challa
8	DHEERAJ R		Dheeraj
9	DIVIT V		Divit
10	G DAEWOO SRI PRASAD		G Dae Woo
11	H VISHNU		H Vishnu
12	HARI NARAYANA S		Hari Narayana
13	IMPANA P		Impana
14	K BINDU		K Bindu
15	K DHEERAJ CHOWDARY		K Dheeraj
16	K YESHWANTH CHOWDARY		K Yeswanth
17	KAMBHAMPATI VEDAVYAS		Kambhampati
18	LALITH ADITHYA M		Lalith
19	M NEVARUTH SAI		M Nevaruth
20	SHASHIDHARA S C		Shashidhara
21	D YASHAWANTH		D Yashwanth
22	LISHANTH N		Lishanth
23	MALLIKARJUNA BIRADAR		Mallikarjuna
24	SOURABH GOUD ALLOLLI		Sourabh

  
Signature of the Staff

  
HOD BS  
Dr. C. VASUDEV  
Professor & HOD  
Department of Applied Science  
K.S. School of Engineering & Management  
Bangalore - 560 109





K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BANGALORE - 560109

DEPARTMENT OF BASIC SCIENCE

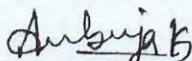
Attendance for Remedial Class

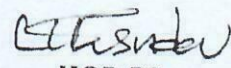
Class/ Section: I A

Subject/ Subject code: Principles of Programming Using C/ BPOPS103

Date: 16/11/2023

Sl.No	Student Name	USN	Signature
1	A YASHWITHA		Yal
2	AKHIL GOUTHAM K		Akhil
3	AMAR		Amar
4	BHARATH KUMAR S C		Bharath
5	BHASKAR S		Bhaskar S.
6	BHAVYA SAI SHREE V		Bhavya
7	CHALLA BALAJI NAIDU		Challa
8	DHEERAJ R		Dheeraj
9	DIVIT V		Divit
10	G DAEWOO SRI PRASAD		G Daewoo
11	H VISHNU		H Vishnu
12	HARI NARAYANA S		Hari
13	IMPANA P		Impana
14	K BINDU		K. Bindu
15	K DHEERAJ CHOWDARY		Dheeraj - K.
16	K YESHWANTH CHOWDARY		K. Yeshwanth
17	KAMBHAMPATI VEDAVYAS		K. Vedav
18	LALITH ADITHYA M		Lalith
19	M NEVARUTH SAI		M. Nevaruth
20	SHASHIDHARA S C		Shashi
21	D YASHAWANTH		D. Yashwanth
22	LISHANTH N		Lishanth
23	MALLIKARJUNA BIRADAR		M. Biradar
24	SOURABH GOUD ALLOLLI		Sourabh

  
Signature of the Staff

  
HOD BS  
**Dr. C. VASUDEV**  
Professor & HOD  
Department of Applied Science  
K.S. School of Engineering & Management  
Bangalore - 560 109





K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU - 560109

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Practical Marks List: Principles of Programming Using C ( BPOPS103) I A sec

S.No	Roll No	Write up	Conduct	Viva	Total 50	Out of 10	Record	Observation	Total 15	Total 25	Sign
		8					10	5			
1	A01	8	35	5	48	9.6	10	5	15	25	A. J. A.
2	A02	8	33	7	48	9.6	10	5	15	25	A. J. A.
3	A03	0	30	6	36	7.2	10	5	15	22	A. J. A.
4	A04	8	35	6	49	9.8	10	5	15	25	A. J. A.
5	A05	0	35	7	42	8.4	10	5	15	23	A. J. A.
6	A06	0	34	7	41	8.2	10	5	15	23	A. J. A.
7	A07	0	35	7	42	8.4	10	5	15	23	A. J. A.
8	A08	0	35	7	42	8.4	10	5	15	23	A. J. A.
9	A09	7	35	5	47	9.4	10	5	15	24	A. J. A.
10	A10	6	32	4	42	8.4	10	5	15	23	A. J. A.
11	A11	0	35	7	42	8.4	10	5	15	23	A. J. A.
12	A12	0	35	3	38	7.6	7	3	10	18	A. J. A.
13	A13	0	34	6	40	8	10	5	15	23	A. J. A.
14	A14	0	35	7	42	8.4	10	5	15	23	A. J. A.
15	A15	8	35	5	48	9.6	10	5	15	25	A. J. A.
16	A16	0	35	7	42	8.4	10	5	15	23	A. J. A.
17	A17	7	34	3	44	8.8	10	5	15	24	A. J. A.
18	A18	0	30	3	33	6.6	10	5	15	22	A. J. A.
19	A19	5	30	5	40	8	10	5	15	23	A. J. A.
20	A20	0	0	0	0	0	9	5	14	14	A. J. A.
21	A21	8	35	6	49	9.8	10	5	15	25	A. J. A.
22	A22	8	35	6	49	9.8	10	5	15	25	A. J. A.
23	A23	6	35	3	44	8.8	10	5	15	24	A. J. A.
24	A24	5	30	4	39	7.8	10	5	15	23	A. J. A.
25	A25	6	30	4	40	8	10	5	15	23	A. J. A.
26	A26	8	35	5	48	9.6	10	5	15	25	A. J. A.
27	A27	0	31	7	38	7.6	10	5	15	23	A. J. A.
28	A28	0	35	7	42	8.4	10	5	15	23	A. J. A.
29	A29	8	35	5	48	9.6	10	5	15	25	A. J. A.
30	A30	0	30	3	33	6.6	10	5	15	22	A. J. A.
31	A31	8	35	2	45	9	10	5	15	24	A. J. A.
32	A32	6	33	4	43	8.6	10	5	15	24	A. J. A.
33	A33	0	30	5	35	7	9	5	14	21	A. J. A.
34	A34	0	35	4	39	7.8	9	5	14	22	A. J. A.
35	A35	8	35	6	49	9.8	10	5	15	25	A. J. A.
36	A36	0	35	5	40	8	10	5	15	23	A. J. A.
37	A37	8	35	5	48	9.6	10	5	15	25	A. J. A.
38	A38	8	35	5	48	9.6	10	5	15	25	A. J. A.
39	A39	6	32	5	43	8.6	10	5	15	24	A. J. A.



40	A40	7	34	2	43	8.6	10	5	15	24	Chaitanya
41	A41	0	0	0	0	0	10	5	15	15	Chaitanya
42	A42	8	35	5	48	9.6	10	5	15	25	Chaitanya
43	A43	6	34	5	45	9	10	5	15	24	Chaitanya
44	A44	0	34	4	38	7.6	10	5	15	23	Chaitanya
45	A45	0	35	7	42	8.4	10	5	15	23	Chaitanya
46	A46	0	35	5	40	8	10	5	15	23	Chaitanya
47	A47	8	35	6	49	9.8	10	5	15	25	Chaitanya
48	A48	8	35	5	48	9.6	10	5	15	25	Chaitanya
49	A49	7	35	6	48	9.6	10	5	15	25	Chaitanya
50	A50	5	35	5	45	9	10	5	15	25	Chaitanya
51	A51	0	35	5	40	8	10	5	15	24	Chaitanya
52	A52	8	35	5	48	9.6	10	5	15	23	Chaitanya
53	A53	7	35	6	48	9.6	10	5	15	25	Chaitanya
54	A54	8	35	5	48	9.6	10	5	15	25	Chaitanya
55	A55	6	35	5	46	9.2	10	5	15	25	Chaitanya
56	A56	8	35	4	47	9.4	10	5	15	24	Chaitanya
57	A57	5	32	5	42	8.4	10	5	15	24	Chaitanya
58	A58	8	35	5	48	9.6	10	5	15	23	Chaitanya
59	A59	8	35	6	49	9.8	10	5	15	25	Chaitanya
60	A60	0	30	3	33	6.6	10	5	15	22	Chaitanya
61	A61	8	35	6	49	9.8	10	5	15	25	Chaitanya
62	A62	5	32	4	41	8.2	10	5	15	23	Chaitanya
63	A63	6	35	2	43	8.6	10	5	15	24	Chaitanya

*Chaitanya*  
Faculty Incharge

*Chaitanya*  
HOD  
HOD

Department of Computer Science Engineering  
K.S School of Engineering & Management  
Bangalore-560109



**K.S.SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU-560109**



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**PRINCIPLES OF PROGRAMMING USING C LABORATORY**

**I Semester Lab Internals B-Form - Jan - 2024**

**BATCH: - B 2,3,1    SUBJECT CODE: - BPOPS103/203    DATE: - 11/01/2024**

**SEMESTER: - I    A    TIME: - 8.40 AM To 3.40 PM**

S.No	Roll No	Name	Signature	Batch No	Time
1	A18	DIVIT V		BATCH B2	8.40 AM To 11.40 AM
2	A19	DYUTHI S			
3	A20	G DAEWOO SRI PRASAD			
4	A21	GABBURI NARASANNA PALLAVI			
5	A22	GADDAMADUGU DINAVYA			
6	A23	GANNI NAVEEN RAJ ANUDEEP			
7	A24	H VISHNU			
8	A25	HARI NARAYANA S			
9	A26	IMPANA P			
10	A27	INCHARA S			
11	A28	JANHAVI SUDHAKAR THORAT			
12	A29	JHANAVI C			
13	A30	K BINDU			
14	A31	K DHEERAJ CHOWDARY			
15	A32	K P NIHAAL			
16	A33	K YESHWANTH CHOWDARY			
17	A34	KAMBHAMPATI VEDAVYAS			



K.S.SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU-560109



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PRINCIPLES OF PROGRAMMING USING C LABORATORY

I Semester Lab Internals B-Form - Jan - 2024

BATCH: - B 2,3,1 SUBJECT CODE: - BPOPS103/203

DATE: - 11/01/2024

SEMESTER: - I A

TIME: - 8.40 AM To 3.40 PM

S.No	Roll No	Name	Signature	Batch No	Time
35	A01	A YASHWITHA		BATCH B1	12.40 PM To 3.40 PM
36	A02	ADITYA H			
37	A03	AJITH KUMAR			
38	A04	AKASH S			
39	A05	AKHIL GOUTHAM K			
40	A06	AMAR			
41	A07	AMRUTHA K			
42	A08	ANKITHA P			
43	A09	ASHWINI N R			
44	A10	BHARATH KUMAR S C			
45	A11	BHASKAR S			
46	A12	BHAVYA SAI SHREE V			
47	A13	CHALLA BALAJI NAIDU			
48	A14	D JAYA KRISHNA			
49	A15	DEEKSHA N			
50	A16	DEEKSHITHA K			
51	A17	DHEERAJ R			

1) Ambujath

2) Prasanna N

Faculty Signature

HOD

Department of Computer Science Engineering  
K.S School of Engineering & Management  
Bangalore-560109



K.S.SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU-560109



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
PRINCIPLES OF PROGRAMMING USING C LABORATORY

I Semester Lab Internals B-Form - Jan - 2024

BATCH: - B 2,3,1 SUBJECT CODE: - BPOPS103/203 DATE: - 11/01/2024

SEMESTER: - I A

TIME: - 8.40 AM To 3.40 PM

S.No	Roll No	Name	Signature	Batch No	Time
18	A35	KARANAM VENNELA		BATCH B3	10.40 AM To 1.40 PM
19	A36	KOTHA HARSHA NANDHAN			
20	A37	KUSHAL K R			
21	A38	LAKSHMI B			
22	A39	LALITH ADITHYA M			
23	A40	M NEVARUTH SAI			
24	A41	CHAITHANYA C GOWDA			
25	A42	ADITYA P MASABINAL			
26	A43	MEGHA			
27	A44	KIRAN S			
28	A45	ANUSHA M N			
29	A46	SHASHIDHARA S C			
30	A47	MANYA B M			
31	A48	HARSHITHA S			
32	A49	CHAITHANYA R			
33	A50	RISHMITHA K B			
34	A51	S AKSHATHA			





K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU - 560109

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

IA Marks List: Principles of Programming Using C (BPOPS103) I A sec

Sl. No.	USN	Name of the Student	BPOPS103											
			TOTAL CLASS =44	Att. %	IA1(25)	IA2(25)	IA3(25)	Average of best of two internals (25)	IA(15)	Assignment(10)	Theory Total(25)	Lab Total (25)	Final Marks IA(50)	Sign
1		A YASHWITHA	42	95	10	17	13	15	9	10	19	25	44	Yal---
2		ADITYA H	42	95	13	9	15	14	9	10	19	25	44	Aditya
3		AJITH KUMAR	40	91	14	13	3	14	9	10	19	22	41	Ajith K
4		AKASH S	39	89	20	25	24	25	15	10	25	25	50	Akash
5		AKHIL GOUTHAM K	39	89	7	9	14	12	8	10	18	23	41	Akhil
6		AMAR	40	91	8	15	13	14	9	10	19	23	42	Amar
7		AMRUTHA K	43	98	15	8	18	17	11	10	21	23	44	Amrutha
8		ANKITHA P	39	89	14	13	11	14	9	10	19	23	42	Ankitha
9		ASHWINI N R	43	98	13	13	16	15	9	10	19	24	43	Ashwini N
10		BHARATH KUMAR S C	41	93	6	10	12	11	7	10	17	23	40	Bharath S C
11		BIHASKAR S	41	93	10	17	15	16	10	10	20	23	43	Bihas
12		BHAVYA SAI SHREE V	38	86	11	5	11	11	7	10	17	18	35	Bhavya
13		CHALLA BALAJI NAIDU	43	98	11	13	5	12	8	10	18	23	41	Balaji
14		D JAYA KRISHNA	41	93	17	15	12	16	10	10	20	23	43	D-Jaya Krishna
15		DEEKSHA N	38	86	13	11	14	14	9	10	19	25	44	Deeksha
16		DEEKSHITHA K	38	86	20	14	16	18	11	10	21	23	44	Deekshitha
17		DHEERAJ R	40	91	10	10	6	10	6	10	16	24	40	Dheeraj
18		DIVIT V	41	93	13	9	5	11	7	10	17	22	39	Divit
19		DYUTHI S	38	86	18	17	10	18	11	10	21	23	44	Dyuthi
20		G DAEWOOSRI PRASAD	40	91	10	20	AB	15	9	10	19	14	33	G Daewoosri
21		GABBURI NARASANNA PALLAYI	44	100	23	24	14	24	15	10	25	25	50	Gabburi
22		GADDAMADUGU DINAVYA	44	100	24	23	25	25	15	10	25	25	50	Gaddamadu
23		GANNI NAVEEN RAJ ANUDEEP	38	86	13	15	AB	14	9	10	19	24	43	Ganni
24		H VISHNU	39	89	11	20	19	20	12	10	22	23	45	H Vishnu
25		HARI NARAYANA S	39	89	10	11	15	13	8	10	18	23	41	Hari
26		IMPANA P	39	89	10	20	22	21	13	10	23	25	48	Impana
27		INCHARA S	39	89	14	13	17	16	10	10	20	23	43	Inchara
28		JANHVI SUDHAKAR THODAT	44	100	15	7	12	14	9	10	19	23	42	Janhvi
29		JHANAVI C	44	100	16	20	22	21	13	10	23	25	48	Jhanavi
30		K BINDU	38	86	15	5	5	10	6	10	16	22	38	K Bindu

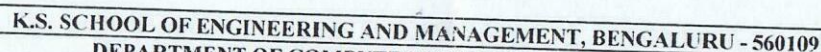


31	K DHEERAJ CHOWDARY	41	93	10	9	10	10	6	10	16	24	40	Dijai*
32	K P NIHAAL	41	93	17	11	12	15	9	8	9	24	41	Nihad
33	K YESHWANTH CHOWDARY	39	89	8	14	4	11	7	10	17	21	38	Kalavathi
34	KAMBHAMPATI VEDAVYAS	40	91	7	15	16	16	7	10	17	22	39	Ki. Venkatesh
35	KARANAM VENNELA	43	98	23	25	24	25	15	10	25	25	50	Karuna
36	KOTHA HARSHA NANDILAN	39	89	13	10	AB	12	8	10	18	23	41	KH
37	KUSHAL K R	42	95	14	20	21	21	13	10	23	25	48	Kushal
38	LAKSHMI B	44	100	23	24	21	24	15	10	25	25	50	Lakshmi
39	LALITH ADITHYA M	40	91	8	14	7	11	7	10	17	24	41	Lalit
40	M NEVARUTH SAI	39	89	7	15	1	11	7	10	17	24	41	M. Nevaruth Sai
41	CHAITHANYA C GOWDA	41	93	21	21	21	21	13	10	23	15	38	Chaitanya
42	ADITYA P MASABINAL	39	89	15	14	24	20	12	10	22	25	47	Aditya
43	MEGHA	43	98	19	18	20	20	12	10	22	24	46	Megha
44	KIRAN S	42	95	13	15	9	14	9	10	19	23	42	Kiran
45	ANUSHA M N	39	89	16	16	14	16	10	10	20	23	43	Anusha
46	SHASHIDHARA S C	40	91	7	11	13	12	8	10	18	23	41	Shashi
47	MANYA B M	44	100	19	24	24	24	15	10	25	25	50	Manya B.M
48	HARSHITHA S	42	95	13	14	17	16	10	10	20	25	45	Harshitha
49	CHAITHANYA R	41	93	16	13	20	18	11	10	21	25	46	Chaitanya
50	RISHMITHA K B	42	95	13	10	15	14	9	10	19	24	43	Rishmitha
51	S AKSHATHA	42	95	14	15	22	19	12	10	22	23	45	Sakshatha
52	D YASHAWANTH	39	89	12	19	16	18	11	10	21	25	46	D. Yashawanth
53	CHITRA U	41	93	18	21	20	21	13	10	23	25	48	Chitra
54	LISHANTH N	39	89	10	9	13	12	8	10	18	25	43	Lishanth
55	M HARSHITH PRAMOD	39	89	13	15	9	14	9	10	19	24	43	M. Harshith
56	ISMATH ZEHERA	43	98	17	20	18	19	12	10	22	24	46	Ismath
57	MALLIKARJUNA BIDAD	39	89	3	11	10	11	7	10	17	23	40	Mallikarjuna
58	MANOJ KUMAR C	39	89	15	20	12	18	11	10	21	25	46	Manoj
59	C YUVARAJ	40	91	20	22	AB	21	13	10	23	25	48	C. Yuvaraj
60	SOURABH GOUD ALLOU	39	89	3	7	13	10	6	10	16	22	38	Sourabh
61	K G SOUMYA	40	91	17	23	22	23	14	10	24	25	49	K. G. Soumya
62	VAIBHAV S	40	91	16	10	11	14	9	10	19	23	42	Vaibhavi
63	PARSHURAM N	40	91	18	10	10	14	9	10	19	24	43	Parashuram

*Chaitanya*  
Faculty Incharge

*Kiran*  
HOD





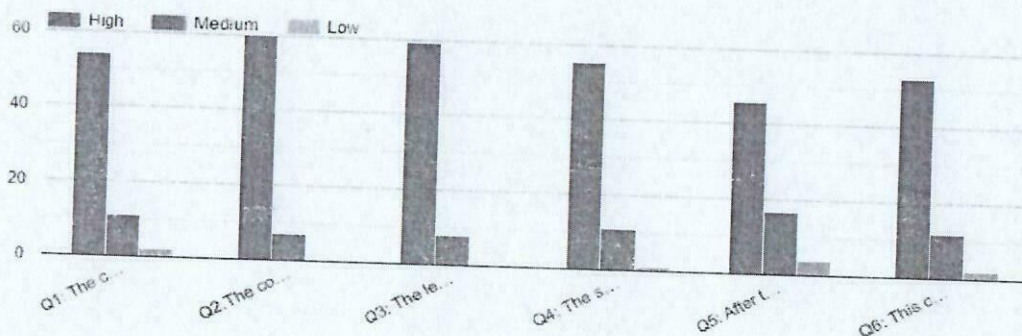
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING					
Course End Survey: Principles of Programming Using C (BPOPS103) I A sec					

Course End Survey: Principles of Programming Using C (BPOPS103) I A sec										
Timestamp	Email	Name	USN	[Q1: The course increased your level of interest?]	[Q2: The course content was appropriate and was presented in a structured manner]	[Q3: The learning material, theory/practical sessions were relevant to the course outcomes?]	[Q4: The self study (including reading) required for this course will ensure better achievement of course objectives?]	[Q5: After this course, you will be able to solve analyze real life engineering problems related to this course?]	[Q6: This course has given you enough understanding to take next level courses?]	Sign
1-4-2024 21:45:05	harshanandhan2006@gmail.com	K HARSHA NANDHAN	A-36	High	High	High	High	High	High	
1-4-2024 21:45:36	@dheerajraji1114@gmail.com	Dheeraj	A17	High	High	High	High	High	High	
1-4-2024 21:46:14	djayakrishna14@gmail.com	D Jaya Krishna	A-14	High	High	High	High	High	High	
1-4-2024 21:46:16	Jhanavic2005@gmail.com	Jhanavi.C	A29	High	High	High	High	High	High	
1-4-2024 21:46:29	thorattjanahvi@gmail.com	Janhavi S Thorat	A28	Medium	High	High	High	High	High	
1-4-2024 21:46:40	incharaurs2005@gmail.com	Inchara S	A27	High	High	High	High	Medium	High	
1-4-2024 21:46:47	anudeepr1816@gmail.com	G Naveen raj anudeep	A23	High	High	High	High	High	High	
1-4-2024 21:46:59	shashidharascshashi@gmail.com	SHASHIDHARA SC	A-46	High	High	High	High	High	High	
1-4-2024 21:47:00	dheerajchowdary172@gmail.com	K DHEERAJ CHOWDARY	31	High	High	High	Medium	Medium	High	
1-4-2024 21:47:19	amarbommani797@gmail.com	Amar	A6	High	High	High	High	High	High	
1-4-2024 21:47:20	adityah2212@gmail.com	Aditya H	A02	Medium	High	High	High	High	Medium	
1-4-2024 21:47:21	kgsoumya1605@gmail.com	K G. Soumya	61	High	High	High	High	High	High	
1-4-2024 21:47:37	Pallavimagic2006@gmail.com	G N Pallavi	A21	High	High	High	High	Medium	Medium	
1-4-2024 21:48:14	akhilgouthamK@gmail.com	Akhil Goutham K	5	High	High	High	High	High	High	
1-4-2024 21:48:19	bhaskars17812@gmail.com	Bhaskar s	11	High	High	High	Medium	High	High	
1-4-2024 21:55:29	masabinaladitya82@gmail.com	Aditya masabinal	A42	High	High	High	High	Medium	Medium	
1-4-2024 22:00:24	rp068496@gmail.com	Megha	A43	High	High	High	High	High	High	
1-4-2024 22:00:52	akash.s12590@gmail.com	Akash S	A04	Medium	High	High	High	High	High	
1-4-2024 22:01:58	impanap04@gmail.com	IMPANA P	A26	High	High	High	High	Medium	High	
1-4-2024 22:02:59	anamanenisaritha@gmail.com	A yashwitha	A1	High	High	High	High	High	High	
1-4-2024 22:20:56	gowdachaitanya68@gmail.com	Chaithanya c gowda	A41	High	High	High	High	High	High	
1-4-2024 22:22:19	sridevimegha634@gmail.com	Hari Narayana S	25	High	High	High	High	High	High	
1-4-2024 22:29:38	dinavyagaddamadugu1.3@gmail.com	G.Dinavya	A22	High	High	High	High	High	High	
1-4-2024 22:36:18	desaiyashwanth@gmail.com	D YASHWANTH	A52	Medium	High	High	High	High	High	
1-4-2024 23:24:13	hv0510604@gmail.com	Vishnu	24	Medium	High	High	High	High	High	
1-5-2024 0:35:32	anudeepr1816@gmail.com	G Naveen raj anudeep	A23	High	Medium	Medium	Medium	Medium	High	
1-5-2024 1:39:10	vennela.k004@gmail.com	Karanam Vennela	A35	High	High	High	High	Medium	Medium	
1-5-2024 3:53:38	deekshithakumar23@gmail.com	Deekshitha K	A16	High	High	High	High	High	High	
1-5-2024 4:25:43	ankithap192004@gmail.com	Ankitha p	A 08	Medium	High	High	High	High	High	
1-5-2024 6:14:13	chitrachittu920@gmail.com	Chithra.U	A53	High	Medium	Medium	Medium	High	High	
1-5-2024 6:29:33	chukkayavaraj123@gmail.com	C Yuvaraj	A59	High	High	High	High	Medium	Medium	
1-5-2024 7:00:58	gdaewoosriprasad@gmail.com	G DAEWOO SRI PRASAD	A20	High	High	High	High	Medium	Medium	
1-5-2024 7:27:19	chaithanyarajkumar594@gmail.com	Chaithanya R	A49	High	High	High	High	High	High	
1-5-2024 7:31:28	Kundulabindu@gmail.com	K bindu	A30	High	High	High	High	High	High	
1-5-2024 7:32:00	Kundulabindu@gmail.com	K bindu	A30	High	High	High	Medium	Medium	Medium	



1-5-2024 7:40:07	manyabmmahadevappa@g	MANYA B M	A-47	High	High	High	High	High	High	High	
1-5-2024 11:10:35	mnanusha0@gmail.com	Anusha MN	45	High	High	High	High	High	High	High	
1-5-2024 11:10:50	Vedavyes3999@gmail.com	K.vedavyas	A34	High	High	High	High	High	High	High	
1-5-2024 11:21:58	ismathzehera39@gmail.com	ISMATH ZEHERA	A56	High	High	High	High	High	High	High	
1-5-2024 11:34:05	lakshmiaishu2005@gmail.c	Lakshmi.B	A38	High	High	High	High	High	Low	High	
1-5-2024 11:36:50	mekanaevruthsai@gmail.co	M.Neavruth Sai	A-40	High	High	High	High	High	High	High	
1-5-2024 11:46:32	ashwininr2005@gmail.com	Ashwini N R	A-09	High	High	High	High	High	High	High	
1-5-2024 22:59:43	harshithpramodm@gmail.co	M Harshith pramod	A55	Medium	High	High	High	High	High	High	
1-9-2024 10:25:16	kpnihaal1725@gmail.com	Kp Nihaal	A32	High	High	High	Medium	Medium	Medium	Medium	
1-9-2024 11:04:53	nparashuramgowda333@gr	Parashuram N	A63	High	High	High	High	High	High	High	
1-9-2024 11:14:04	deekshagowda1128@gmail	Deeksha N	A15	High	High	High	High	High	High	High	
1-9-2024 11:15:33	lishanth65cta@gmail.com	LISHANTH N	A54	Low	Medium	Medium	High	High	High	High	
1-9-2024 11:16:15	kiran46779@gmail.com	Kiran s	44	High	High	High	Medium	Medium	Low	Low	
1-9-2024 11:16:31	vaibhaviammu123@gmail.c	Vaibhavi S	A62	High	High	High	High	High	High	High	
1-9-2024 11:17:21	Vemuribhavya04@gmail.co	Bhavya sai shree.v	A12	Medium	High	High	High	High	High	High	
1-9-2024 11:17:25	chaithanyarakumar594@gr	Chaithanya R	A49	High	High	High	High	High	Medium	High	
1-9-2024 11:17:45	bharathkumarsc50@gmail.c	Bharath Kumar sc	10	High	High	High	High	High	High	Medium	
1-9-2024 11:18:39	bharathkumarsc50@gmail.c	Bharath Kumar sc	10	High	High	High	High	High	High	High	
1-9-2024 11:23:32	akshathashivanna05@gmai	S Akshatha	A51	High	High	High	High	High	High	High	
1-9-2024 11:35:40	mylifemyruls@gmail.com	MALLIKARJUN BIRADR	A 57	High	High	High	High	Medium	Medium	High	
1-9-2024 11:40:55	manojkumar.c.nic@gmail.co	Manoj Kumar C	A58	High	High	High	High	High	High	High	
1-9-2024 11:47:26	harshitha201016@gmail.co	HARSHITHA S	A48	Medium	High	High	High	Medium	High	High	
1-9-2024 11:53:02	rishmithakampalli2005@gm	Rishmitha	A-50	High	High	High	High	Medium	Medium	High	
1-9-2024 11:55:04	ajitk36820@gmail.com	Ajit kumar	A-03	High	Medium	High	High	High	High	High	
1-9-2024 12:21:37	yeswanth1508@gmail.com	K YESHWANTH CHOWDAR	A33	High	High	High	High	High	Medium	Medium	
1-9-2024 12:57:32	balajinairuchalla@gmail.co	Balaji naidu	A-13	High	High	High	High	High	High	High	
1-9-2024 13:00:55	kushal.kr6002@gmail.com	Kushal K R	A37	Low	Medium	Medium	High	High	High	High	
1-9-2024 16:45:38	divitvds1@gmail.com	Divit v	A18	High	High	High	High	High	Low	Medium	
1-9-2024 19:08:38	ankithap192004@gmail.com	Ankitha p	A-08	Medium	Medium	Medium	High	High	High	High	
1-9-2024 19:27:55	hv0510604@gmail.com	Vishnu	24	Medium	Medium	Medium	Medium	Low	Low	Low	
#####	deekshagowda1128@gmail	Deeksha.N	A15	High	High	High	High	Medium	Medium	Medium	



*[Signature]*  
Faculty Incharge

*[Signature]*  
HOD  
Department of Computer Science Engineering  
K.S School of Engineering & Management  
Bangalore-560109



Branch : CS

Semester : 1

Sl NO.	USN	BPOPS103
1	1KG23CS001	19 (TH) , 25 (PR)
2	1KG23CS003	19 (TH) , 25 (PR)
3	1KG23CS004	22 (TH) , 25 (PR)
4	1KG23CS005	19 (TH) , 22 (PR)
5	1KG23CS006	25 (TH) , 25 (PR)
6	1KG23CS007	18 (TH) , 23 (PR)
7	1KG23CS008	19 (TH) , 23 (PR)
8	1KG23CS009	21 (TH) , 23 (PR)
9	1KG23CS010	19 (TH) , 23 (PR)
10	1KG23CS011	20 (TH) , 23 (PR)
11	1KG23CS012	20 (TH) , 24 (PR)
12	1KG23CS013	19 (TH) , 24 (PR)
13	1KG23CS014	17 (TH) , 23 (PR)
14	1KG23CS015	20 (TH) , 23 (PR)
15	1KG23CS016	17 (TH) , 18 (PR)
16	1KG23CS017	23 (TH) , 25 (PR)
17	1KG23CS018	23 (TH) , 15 (PR)
18	1KG23CS019	21 (TH) , 25 (PR)
19	1KG23CS020	18 (TH) , 23 (PR)
20	1KG23CS021	23 (TH) , 25 (PR)
21	1KG23CS022	20 (TH) , 23 (PR)
22	1KG23CS023	21 (TH) , 25 (PR)
23	1KG23CS024	19 (TH) , 25 (PR)
24	1KG23CS025	21 (TH) , 23 (PR)
25	1KG23CS026	24 (TH) , 24 (PR)
26	1KG23CS027	16 (TH) , 24 (PR)
27	1KG23CS028	25 (TH) , 25 (PR)
28	1KG23CS029	17 (TH) , 22 (PR)
29	1KG23CS030	21 (TH) , 23 (PR)
30	1KG23CS031	19 (TH) , 14 (PR)
31	1KG23CS032	25 (TH) , 25 (PR)
32	1KG23CS033	25 (TH) , 25 (PR)
33	1KG23CS034	25 (TH) , 24 (PR)
34	1KG23CS035	19 (TH) , 24 (PR)
35	1KG23CS036	22 (TH) , 23 (PR)
36	1KG23CS037	18 (TH) , 23 (PR)



Sl NO.	USN	BPOPS103
37	1KG23CS038	25 (TH) , 25 (PR)
38	1KG23CS039	20 (TH) , 25 (PR)
39	1KG23CS040	23 (TH) , 25 (PR)
40	1KG23CS041	20 (TH) , 23 (PR)
41	1KG23CS042	22 (TH) , 24 (PR)
42	1KG23CS043	19 (TH) , 23 (PR)
43	1KG23CS044	23 (TH) , 25 (PR)
44	1KG23CS045	19 (TH) , 23 (PR)
45	1KG23CS046	16 (TH) , 22 (PR)
46	1KG23CS047	16 (TH) , 24 (PR)
47	1KG23CS048	24 (TH) , 25 (PR)
48	1KG23CS049	17 (TH) , 24 (PR)
49	1KG23CS050	17 (TH) , 21 (PR)
50	1KG23CS051	17 (TH) , 22 (PR)
51	1KG23CS052	25 (TH) , 25 (PR)
52	1KG23CS053	21 (TH) , 24 (PR)
53	1KG23CS054	19 (TH) , 23 (PR)
54	1KG23CS055	18 (TH) , 23 (PR)
55	1KG23CS056	23 (TH) , 25 (PR)
56	1KG23CS057	25 (TH) , 25 (PR)
57	1KG23CS058	17 (TH) , 24 (PR)
58	1KG23CS059	19 (TH) , 23 (PR)
59	1KG23CS060	18 (TH) , 25 (PR)
60	1KG23CS061	24 (TH) , 23 (PR)
61	1KG23CS062	19 (TH) , 24 (PR)
62	1KG23CS063	17 (TH) , 24 (PR)
63	1KG23CS064	21 (TH) , 24 (PR)
64	1KG23CS065	13 (TH) , 19 (PR)
65	1KG23CS066	17 (TH) , 23 (PR)
66	1KG23CS067	23 (TH) , 23 (PR)
67	1KG23CS068	21 (TH) , 25 (PR)
68	1KG23CS069	25 (TH) , 25 (PR)
69	1KG23CS070	21 (TH) , 23 (PR)
70	1KG23CS071	22 (TH) , 24 (PR)
71	1KG23CS072	25 (TH) , 25 (PR)
72	1KG23CS073	24 (TH) , 23 (PR)
73	1KG23CS074	23 (TH) , 24 (PR)
74	1KG23CS075	25 (TH) , 25 (PR)
75	1KG23CS076	17 (TH) , 24 (PR)



Sl NO.	USN	BPOPS103
76	1KG23CS077	21 (TH) , 23 (PR)
77	1KG23CS078	19 (TH) , 24 (PR)
78	1KG23CS079	24 (TH) , 24 (PR)
79	1KG23CS080	25 (TH) , 24 (PR)
80	1KG23CS081	20 (TH) , 18 (PR)
81	1KG23CS082	24 (TH) , 24 (PR)
82	1KG23CS083	21 (TH) , 23 (PR)
83	1KG23CS084	25 (TH) , 23 (PR)
84	1KG23CS085	17 (TH) , 19 (PR)
85	1KG23CS086	17 (TH) , 22 (PR)
86	1KG23CS087	17 (TH) , 20 (PR)
87	1KG23CS088	18 (TH) , 23 (PR)
88	1KG23CS089	22 (TH) , 23 (PR)
89	1KG23CS090	19 (TH) , 24 (PR)
90	1KG23CS091	22 (TH) , 23 (PR)
91	1KG23CS092	21 (TH) , 23 (PR)
92	1KG23CS093	21 (TH) , 23 (PR)
93	1KG23CS094	20 (TH) , 24 (PR)
94	1KG23CS095	18 (TH) , 23 (PR)
95	1KG23CS096	25 (TH) , 25 (PR)
96	1KG23CS097	21 (TH) , 24 (PR)
97	1KG23CS098	18 (TH) , 23 (PR)
98	1KG23CS099	20 (TH) , 22 (PR)
99	1KG23CS100	24 (TH) , 24 (PR)
100	1KG23CS101	24 (TH) , 23 (PR)
101	1KG23CS102	25 (TH) , 24 (PR)
102	1KG23CS103	22 (TH) , 24 (PR)
103	1KG23CS104	25 (TH) , 25 (PR)
104	1KG23CS105	25 (TH) , 25 (PR)
105	1KG23CS106	16 (TH) , 22 (PR)
106	1KG23CS107	19 (TH) , 23 (PR)
107	1KG23CS108	18 (TH) , 12 (PR)
108	1KG23CS109	19 (TH) , 24 (PR)
109	1KG23CS110	18 (TH) , 24 (PR)
110	1KG23CS111	18 (TH) , 24 (PR)
111	1KG23CS112	19 (TH) , 23 (PR)
112	1KG23CS113	25 (TH) , 25 (PR)
113	1KG23CS114	21 (TH) , 24 (PR)
114	1KG23CS115	18 (TH) , 23 (PR)



Sl NO.	USN	BPOPS103
115	1KG23CS116	24 (TH) , 23 (PR)
116	1KG23CS117	24 (TH) , 25 (PR)
117	1KG23CS118	24 (TH) , 25 (PR)
118	1KG23CS119	17 (TH) , 23 (PR)
119	1KG23CS120	25 (TH) , 25 (PR)
120	1KG23CS121	17 (TH) , 22 (PR)
121	1KG23CS122	20 (TH) , 24 (PR)
122	1KG23CS123	19 (TH) , 23 (PR)
123	1KG23CS124	24 (TH) , 24 (PR)
124	1KG23CS125	24 (TH) , 24 (PR)