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PO Attainment

Faculty Name: Dr. Gaurav Agarwal Class/Sem: B.Tech(CC)/2 Academic Year: 2022-23

Course Name: DESIGN THINKING Course Code: BCSI-201 Program Name: B.Tech(CC)

CO-PO MAPPING:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	1	3			2	3	2	3			
CO2	1	1	1		3	3	1	3	3	1	2	1
CO3	1		1	1	3	2	2	3	2		1	
CO4	2	1	3	1		1	3	1			2	
CO5	3	1	2	1	2		1	1	1	2	1	2
CO6	2	3	3	3	1	2	1	1	3		3	1

CO ATTAINMENT:

Dr. Gaurav Agarwal	Att. Level
CO1	2.78
CO2	2.78
CO3	2.67
CO4	2.78
CO5	2.78
CO6	2.67

PO ATTAINMENT :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Overall PO Attainment	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.8	2.7	2.8

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Invertis University, Bareilly

CO Attainment

Faculty Name: Dr.Gaurav Agarwal

Course Name: DESIGN THINKING

Class/Sem: B.Tech(CC)/II Sem Academic Year: 2022-23

Course Code: BCSI-201 Program Name: B.Tech(CC)

S. No.	University Reg. No.	Student Name	First Unit Test	Second Unit Test	First Class Test	Second Class Test	Best One From Unit Test	Best One From Class Test	Internal Marks Scheme			Total Internal Marks	End Sem Exam Marks	Total Marks
			Theory (25)	Theory (25)	Theory (10)	Theory (10)	Theory (25)	Theory (10)	Unit Test(UT)	Attendance(AT)	Teacher Assessment(TA)	Theory (25)	Theory (50)	Theory (75)
									12	12	6			
1	BTCC2022001	AMAN	25	20	7	5	25	7	10	9	4	23	29	52
2	BTCC2022004	MOHD MUNAZIR	25	20	7	5	25	7	10	9	4	23	26	49
		Students appeared for the examination	2	2	2	2	2	2	2	2	2	22	2	2
		Target / satisfactory mark set as benchmark	12	12	4	4	12	4	8	8	2	12	28	40
		Students scored above the target set	2	2	2	2	2	2	2	2	2	12	1	2
		% Students scored above the target set	100%	100%	100%	100%	100%	100%	100%	100%	100%	18	50%	100%
		Attainment Level	3	3	3	3	3	3	3	3	3	18	1	3

															Overall
CO1	3		3		3	3	3	3	3	15	1	3	2.78		
CO2	3		3		3	3	3	3	3	15	1	3	2.78		
CO3	3				3		3	3		15	1	3	2.67		
CO4		3		3	3	3	3	3	3	15	1	3	2.78		
CO5		3		3	3	3	3	3	3	15	1	3	2.78		
CO6		3			3		3	3		15	1	3	2.67		

Rubric:

% Students	Level
<50%	1
50-75%	2
>75%	3

Overall attainment	2.74

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Even Semester Examination 2022-23

B.TECH(CC)- II Semester

Course/Code: DESIGN THINKING (BCSI-201)

Maximum Marks :50; Duration: 3 Hours

Q.No	Questions	Marks (50)	CO	BL
	Explain the following:			
1-I	What do you mean by creativity?	01	CO1	L2
1-II	Differentiate between learning and hearing.	01	CO2	L1
1-III	Differentiate between ideation and prototype.	01	CO2	L2
1-IV	Infer the meaning of mind mapping.	01	CO2	L1
1-V	List out the various sector using the design thinking concept	01	CO2	L1
	Explain the following:			
2-I	Define a product and classify them.	01	CO1	L1
2-II	State any two tools of empathy.	01	CO1	L1
2-III	Show the characteristics of design thinking.	01	CO1	L1
2-IV	What do you mean by design thinking?	01	CO1	L2
2-V	Explain the term usability.	01	CO1	L1
3-I	Analysis of design thinking in the service sector. Or Define Brainstorming. what are its principles and rules?	5	CO2	L2
3-II	Discuss innovation with its type and characteristics. Or How is the design process related to design thinking?	5	CO3	L3
4-I	What is the problem with reframing and why it is important? Or Discuss the core creativity skills in detail.	5	CO3	L5
4-II	How does design thinking work with agile? Or Illustrate the role of innovation and creativity in the organization.	5	CO4	L3
5	What are business challenges? Explain any two with design thinking solutions. Or What are the tools and techniques for generating the ideas? Discuss the SCAMPER technique in detail.	10	CO5	L4
6	What do you mean by grounded theory? Explain with a suitable example. Or Elaborate human-centered design with all four principles.	10	CO6	L6

BL – Bloom's Taxonomy Levels

(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)

CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

Level	Marks
Level1	7
Level2	8
Level3	10
Level4	10
Level5	5
Level6	10
Total	**50**

CO	Marks
CO1	6
CO2	9
CO3	10
CO4	5
CO5	10
CO6	10
Total	**50**

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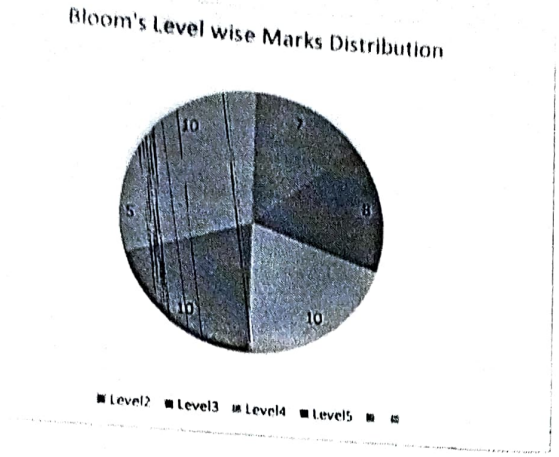

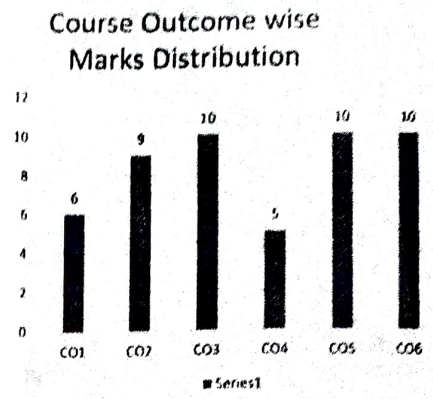

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First Unit Test 2022-23

B.TECH(CC)- II Semester

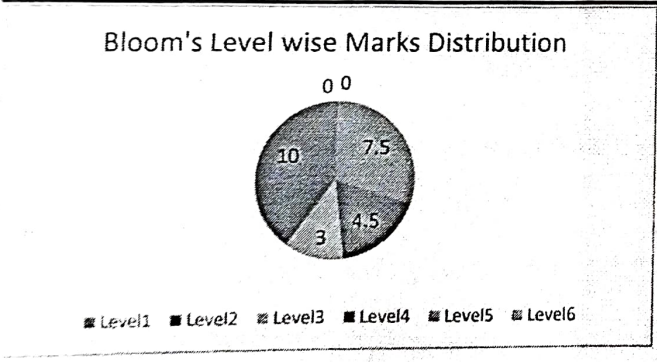
Course/Code: DESIGN THINKING (BCSI-201)

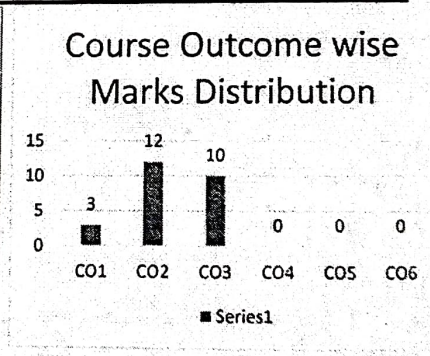
Maximum Marks :25; Duration: 1.5 Hours

Q.No	Questions	Marks (25)	CO	BL
	Explain the following in very short -			
1-I	Foundations of Human Centered Design?	01	CO1	L1
1-II	Barriers to Innovation	01	CO1	L1
1-III	Barriers to Adoption	01	CO2	L2
1-IV	How we can learn the things by doing?	01	CO1	L2
	Explain the following function -			
2-I	What is the need of design?	03	CO2	L2
2-II	Design of Usability?	03	CO2	L1
3-I	What is the impect of Design thinking on society?	03	CO2	L1
3-II	How problem reframing is important?	03	CO2	L3
4-I	What is the role of Design in Engineering?	05	CO3	L4
4-II	Why design thinking is so important?	05	CO3	L4

BL – Bloom's Taxonomy Levels
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

Level	Marks	CO	Marks
Level1	7.5	CO1	3
Level2	4.5	CO2	12
Level3	3	CO3	10
Level4	10	CO4	0
Level5	0	CO5	0
Level6	0	CO6	0
Total	**25**	**Total**	**25**





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Second Unit Test 2022-23

B.TECH(CC)- II Semester

Course/Code: DESIGN THINKING (BCSI-201)

Maximum Marks :25; Duration: 1.5 Hours

Q.No	Questions	Marks (25)	CO	BL
	Explain the following in very short -			
1-I	How can you generate ideas?	01	CO4	L1
1-II	What do you mean by prototyping?	01	CO4	L1
1-III	How we document the design?	01	CO4	L2
1-IV	What is learning through thinking.	01	CO4	L1
	Explain the following function -			
2-I	creativity as Teaching and Learning	03	CO4	L2
2-II	What do you mean by design thinking?	03	CO5	L2
3-I	What are the tools and techniques for generating the ideas? Discuss the	03	CO5	L2
3-II	Analysis of design thinking in the service sector.	03	CO5	L2
4-I	How does design thinking work with agile?	05	CO5	L3
4-II	What do you mean by grounded theory? Explain with a suitable example.	05	CO6	L4

BL – Bloom's Taxonomy Levels

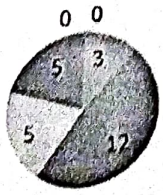
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)

CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

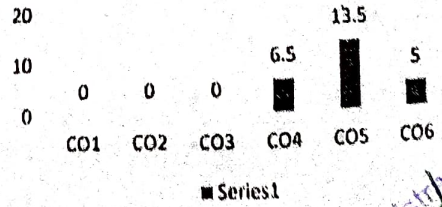
Level	Marks
Level1	3
Level2	12
Level3	5
Level4	5
Level5	0
Level6	0
Total	25

CO	Marks
CO1	0
CO2	0
CO3	0
CO4	6.5
CO5	13.5
CO6	5
Total	25

Bloom's Level wise Marks Distribution



Course Outcome wise Marks Distribution



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First Class Test 2022-23

B.TECH(CC)- II Semester

Course/Code: DESIGN THINKING (BCSI-201)

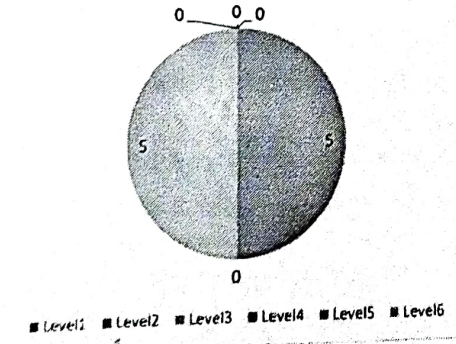
Maximum Marks :10; Duration: 30 MIN

Q.No	Questions	Marks (10)	CO	BL
1	State any two tools of empathy.	05	CO1	L3
2	Analysis of design thinking in the service sector.	05	CO2	L1

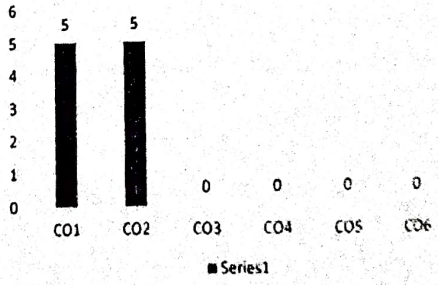
BL – Bloom's Taxonomy Levels
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

Level	Marks	CO	Marks
Level1	5	CO1	5
Level2	0	CO2	5
Level3	5	CO3	0
Level4	0	CO4	0
Level5	0	CO5	0
Level6	0	CO6	0
Total	10	Total	10

Bloom's Level wise Marks Distribution



Course Outcome wise Marks Distribution



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Second Class Test 2022-23

B.TECH(CO)- II Semester

Course/Code: DESIGN THINKING (BCSI-201)

Maximum Marks :10; Duration: 30 MIN

Q.No	Questions	Marks (10)	CO	BL
1	Illustrate the role of innovation and creativity in the organization	05	CO4	L2
2	What are the tools and techniques for generating the ideas? Discuss the SCAMPER technique in detail	05	CO5	L1

BL – Bloom's Taxonomy Levels

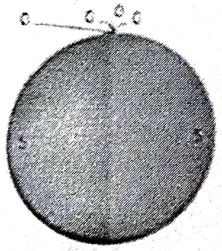
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)

CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

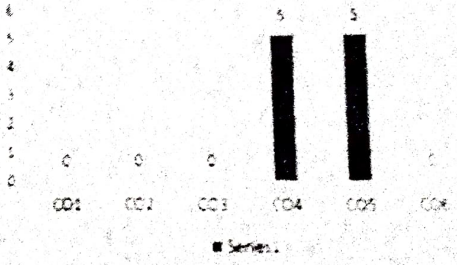
Level	Marks
Level1	5
Level2	5
Level3	0
Level4	0
Level5	0
Level6	0
Total	10

CO	Marks
CO1	0
CO2	0
CO3	0
CO4	5
CO5	5
CO6	0
Total	10

Bloom's Level wise Marks Distribution



Course Outcome wise Marks Distribution



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PO Attainment

Faculty Name: [illegible] Class/Sem: B.Tech(CC)/I Academic Year: 2022-23

Course Name: Problem Solving and Programming in C Course Code: BCS1101 Program Name: B.Tech(CC)

CO-PO MAPPING:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	1	3			2	3	2	3			
CO2	1	1	1		3	3	1	3	3	1	2	1
CO3	1		1	1	3	2	2	3	2		1	
CO4	2	1	3	1		1	3	1			2	
CO5	3	1	2	1	2		3	1	1	2	1	2
CO6	2	3	3	3	1	2	1	1	3		3	1

CO ATTAINMENT:

0	Att. Level
CO1	3.00
CO2	3.00
CO3	3.00
CO4	3.00
CO5	3.00
CO6	3.00

PO ATTAINMENT :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Overall PO Attainment	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

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CO Attainment

Faculty Name: Ms. Priya Chauhan

Course Name: Problem Solving and Programming in C

Class/Sem: B.Tech(CC)/I **Academic Year:** 2022-23

Course Code: BCSI101 **Program Name:** B.Tech(CC)

S. No.	University Reg. No.	Student Name	First Unit Test	Second Unit Test	First Class Test	Second Class Test	Best One From Unit Test	Best One Form Class Test	Internal Marks Scheme			Total Internal Marks	End Sem Exam Marks	Total Marks
									Unit Test(UT)	Attendance(AT)	Teacher Assessment(TA)			
			Theory (25)	Theory (25)	Theory (10)	Theory (10)	Theory (25)	Theory (10)	12	12	6	Theory (25)	Theory (50)	Theory (70)
1	BTCC2022001	AMAN	20	16	5	4	20	5	8	7	3	18	37	55
2	BTCC2022005	AVINASH KUMAR	23	18	7	5	23	7	9	8	4	21	32	53
3	BTCC2022004	MOHD MUNAZIR	18	14	5	4	18	5	7	6	3	16	31	47
		Students appeared for the examination	3	3	3	3	3	3	3	3	3	22	3	3
		Target / satisfactory mark set as benchmark	12	12	4	4	12	4	5	5	2	12	28	40
		Students scored above the target set	3	3	3	3	3	3	3	3	3	12	3	3
		% Students scored above the target set	100%	100%	100%	100%	100%	100%	100%	100%	100%	18	100%	100%
		Attainment Level	3	3	3	3	3	3	3	3	3	15	3	3

														Overall
CO1	3		3		3	3	3	3	3	15	3	3	3.00
CO2	3		3		3	3	3	3	3	15	3	3	3.00
CO3	3				3		3	3		15	3	3	3.00
CO4		3		3	3	3	3	3	3	15	3	3	3.00
CO5		3		3	3	3	3	3	3	15	3	3	3.00
CO6		3			3		3	3		15	3	3	3.00

Rubric:

% Students	Level
<50%	1
50-75%	2
>75%	3

Overall attainment	3.00

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Even Semester Examination 2022-23

B.Tech(CC)- I Semester

Course/Code:Problem Solving and Programming in C (BCSI101)

Maximum Marks :50; Duration: 3 Hours

Q.No	Questions	Marks (50)	CO	BL
	Explain the following:			
1-I	What is the difference between a while and do while?	01	CO1	L2
1-II	Define the term variable in C? and write their rules.	01	CO2	L1
1-III	What are various operators available in C?	01	CO2	L2
1-IV	What is a structure?	01	CO2	L1
1-V	What do you understand by input-output instruction?	01	CO2	L1
	Explain the following:			
2-I	What is Instruction?	01	CO1	L1
2-II	Define the term array.	01	CO1	L1
2-III	Why do we use header files in C programming?	01	CO1	L1
2-IV	What is the use of the getch() function?	01	CO1	L2
2-V	What is an identifier?	01	CO1	L1
3-I	What do you understand by procedural programming and their features. OR	5	CO2	L2
3-II	Write a C program to find the factorial of a given number usi while loop. OR	5	CO3	L3
4-I	Explain loop control instructions in detail with examples. OR	5	CO3	L5
4-II	Explain the decision control instruction in detail with examples. OR	5	CO4	L3
5-I	Describe the basic fundamental of C and write a program to test whether the given number is Even or Odd. OR What is the purpose of using structures? How are they declared?	5	CO5	L4
5-II	What is the function? Explain in detail with the help of a suitable example. OR Write a program in C to find the square of any number using the function.	5	CO5	L5
6-I	Write a program in C to find the sum of all elements of an array. OR Write a C program to find the eligibility for admission to a professional course based on the following criteria: Eligibility Criteria: Marks in Math >=65 Marks in Physics >=55 and Marks in Chemistry>=50 and Total in all three subjects >=190 or Total in Math and Physics >=140	5	CO6	L6
6-II	What is an array? Write a program to search for the desired element in an array. OR Write a program in C to display the n terms of odd natural number and their sum	5	CO6	L6

BL – Bloom's Taxonomy Levels

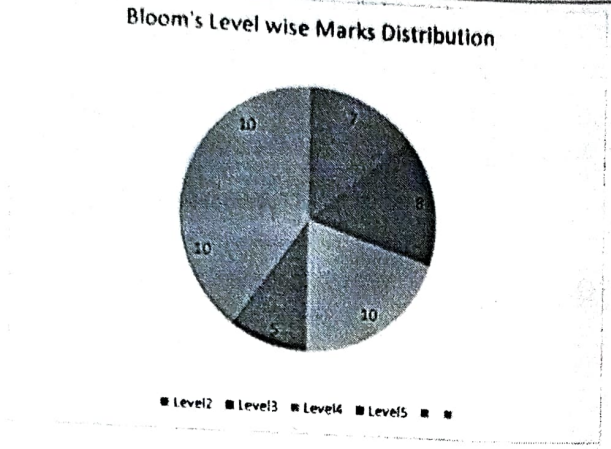
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)

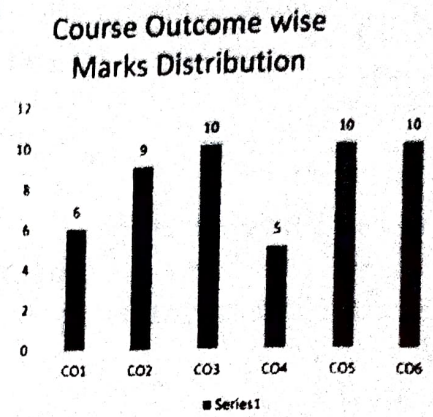
CO – Course Outcomes; PO – Program Outcomes; PI Code – Performance Indicator Code

Level	Marks
Level1	7
Level2	8
Level3	30
Level4	5

CO	Marks
CO1	6
CO2	9
CO3	10
CO4	5

Level5	10	CO5	10
Level6	10	CO6	10
Total	50	Total	50





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First Unit Test 2022-23

B.Tech(CC)- I Semester

rse/Code:Problem Solving and Programming in C (BCSI101)

Maximum Marks 25 Duration: 90 Minutes

Q No	Questions	Marks (25)	CO	BL
	Explain the following in very short -			
1 I	How many key words in C language?	01	CO1	L1
1 II	Write down the range of integer	01	CO1	L1
1 III	What do you mean by data types?	01	CO2	L2
1 IV	what do you mean by constants?	01	CO1	L2
	Explain the following			
2 I	What is an array? In which situation array is advantageous over linked list?	03	CO2	L2
2 II	What are the good characteristics of an algorithm?	03	CO2	L1
3 I	Draw the foundation of system programming	03	CO2	L2
3 II	What is assembler?	03	CO2	L2
4 I	What do you mean by flow chart? Draw a flow chart that the year is leap year or not	05	CO3	L4
4 II	Describe the four basic data types. What is an unsigned integer constant? What is a variable? What is initialization and why it is important?	05	CO3	L4

BL – Bloom's Taxonomy Levels

(1 - Remembering, 2 - Understanding, 3 - Applying, 4 - Analysing, 5 - Evaluating, 6 - Creating)

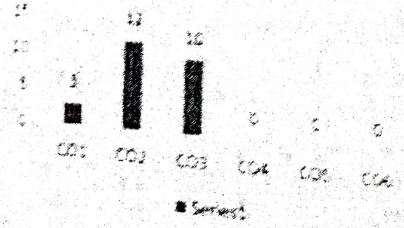
CO – Course Outcomes, PO – Program Outcomes, PI Code – Performance Indicator Code

Level	Marks
Level 1	03
Level 2	10
Level 3	10
Level 4	02
Level 5	00
Level 6	00
Total	25

CO	Marks
CO1	03
CO2	12
CO3	10
CO4	00
CO5	00
CO6	00
Total	25

Bloom's Level wise Marks Distribution

Course Outcome wise Marks Distribution



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Second Unit Test 2022-23

B.Tech(CC)- I Semester

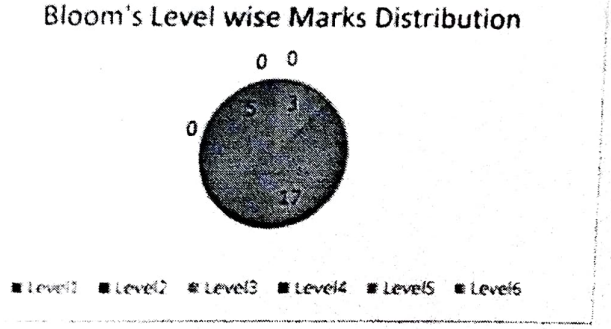
Course/Code:Problem Solving and Programming in C (BCSI101)

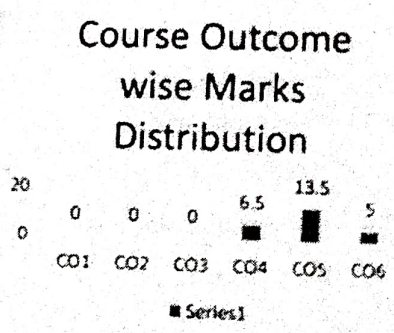
Maximum Marks :25 **Duration: 90 Minutes**

Q.No	Questions	Marks (25)	CO	BL
	Explain the following in very short -			
1-I	What is pointer ?	01	CO4	L1
1-II	What are bit wise operators in C?	01	CO4	L1
1-III	Write the difference between structure and union.	01	CO4	L2
1-IV	How are logical operators written in C?	01	CO4	L1
	Explain the following function -			
2-I	Write a C program to check whether input alphabet is a vowel or not.	03	CO4	L2
2-II	Explain linear search and binary search technique.	03	CO5	L2
3-I	What is a function? Why programmers use functions in code? While executing a	03	CO5	L2
3-II	Write an algorithm for swapping two elements without using an extra temporary	03	CO5	L2
4-I	What is the difference between while and do while ? Write a program to print a	05	CO5	L2
4-II	What is case control structure in C ? What is the reason for using break statement	05	CO6	L4

BL – Bloom's Taxonomy Levels
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

Level	Marks	CO	Marks
Level1	3	CO1	0
Level2	17	CO2	0
Level3	0	CO3	0
Level4	5	CO4	6.5
Level5	0	CO5	13.5
Level6	0	CO6	5
Total	25	Total	25





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First Class Test 2022-23

B.Tech(CC)- I Semester

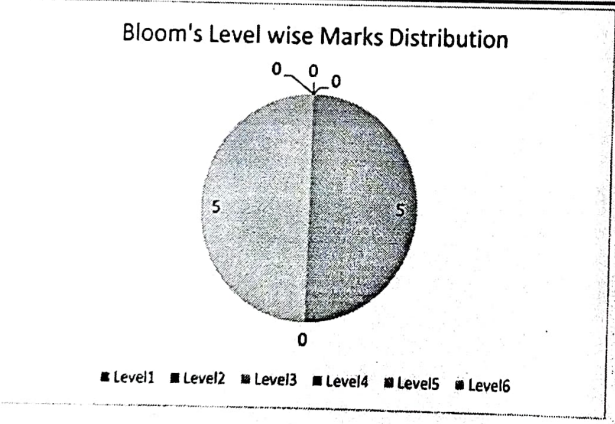
Course/Code:Problem Solving and Programming in C (BCSI101)

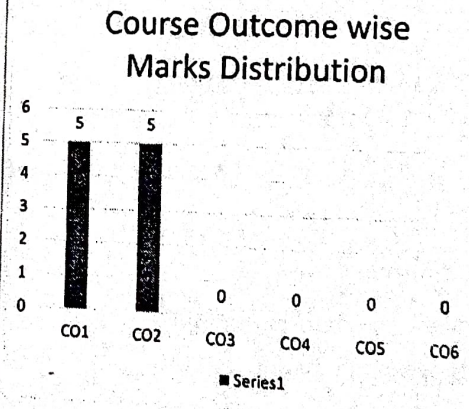
Maximum Marks :10; Duration: 30 Minutes

Q.No	Questions	Marks (10)	CO	BL
1	What are the good characteristics of an algorithm?	05	CO1	L3
2	What do you mean by data types? Explain	05	CO2	L1

BL – Bloom's Taxonomy Levels
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

Level	Marks	CO	Marks
Level1	5	CO1	5
Level2	0	CO2	5
Level3	5	CO3	0
Level4	0	CO4	0
Level5	0	CO5	0
Level6	0	CO6	0
Total	10	Total	10





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Second Class Test 2022-23

B.Tech(CO)- I Semester

Course Code:Problem Solving and Programming in C (BCS1101)

Maximum Marks :10; Duration: 30 Minutes

Q.No	Questions	Marks (10)	CO	BL
1	How are logical operators written in C? Explain with example	05	CO4	L2
2	What is the difference between while and do while ? Write a program to print reverse number of a given number	05	CO5	L1

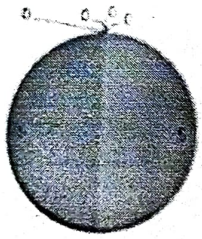
BL – Bloom's Taxonomy Levels

(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)

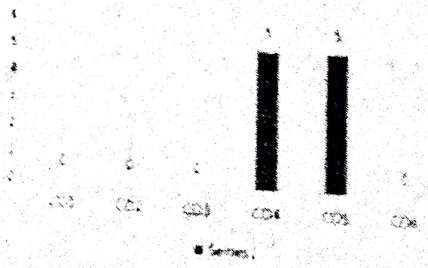
CO – Course Outcomes PO – Program Outcomes. PI Code – Performance Indicator Code

Level	Marks	CO	Marks
Level1	5	CO1	0
Level2	5	CO2	0
Level3	0	CO3	0
Level4	0	CO4	5
Level5	0	CO5	5
Level6	0	CO6	0
Total	10	Total	10

Bloom's Level wise Marks Distribution



Course Outcome wise Marks Distribution



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