MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES
DEPARTMENT OF COMPUTER SCIENCE & CLOUD COMPUTING

COURSE TITLE: GENERAL ENGLISH - I
COURSE CODE: EN18101
CREDITS: 3

DEPARTMENT: B.Sc Computer Science & Cloud Computing

PROGRAMME OUTCOMES (B.Sc CSCC):

- **PO1.Disciplinary Knowledge**: Capable of demonstrating comprehensive knowledge and understanding of computer science with specialization in Cloud computing.

- **PO2. Scientific Reasoning:** Ability to analyze, and understand concepts in computer science, critically evaluates ideas, logical reasoning and experience in programming, algorithm development and application development.

- **PO3. Problem Solving:** Capacity to extrapolate and apply competencies to solve different kinds of non-familiar problems, such as design cloud-based Solutions/Architecture, develop and deploy scalable cloud application using popular cloud platforms, build public cloud.

- **PO4.** Master the practical and theoretical aspects of virtualization technologies, cloud technologies, data centers, networking, and operating systems

- **PO5.** Implement basic cloud-based solutions, configure basic networks and operating system, and demonstrate functional knowledge of Windows Azure and Amazon cloud services.

- **PO6**. Be able to understand the role of Computer Science in solving real time problems in society.

- **PO7.** Know the recent developments IT, future possibilities and limitations, and understand the value of lifelong learning.

- **PO8.** Get an ability to participate in debates, discussions in the society constructively

PROGRAMME SPECIFIC OUTCOMES (DEPARTMENTAL):
Students will be able to:

- **PSO1:** Become technology-oriented with the knowledge and ability to develop creative solutions, and better understand the effects of future developments of computer systems and technology on people and society as a whole.

- **PSO2**: Design cloud-based solutions or architecture and use the popular cloud platforms to develop and deploy cloud applications.

- **PSO3**: Provide computer-based solutions for real-life problems by developing specific software products.

- **PSO4:** Design and develop highly scalable cloud-based applications by configuring virtual machines on the cloud.
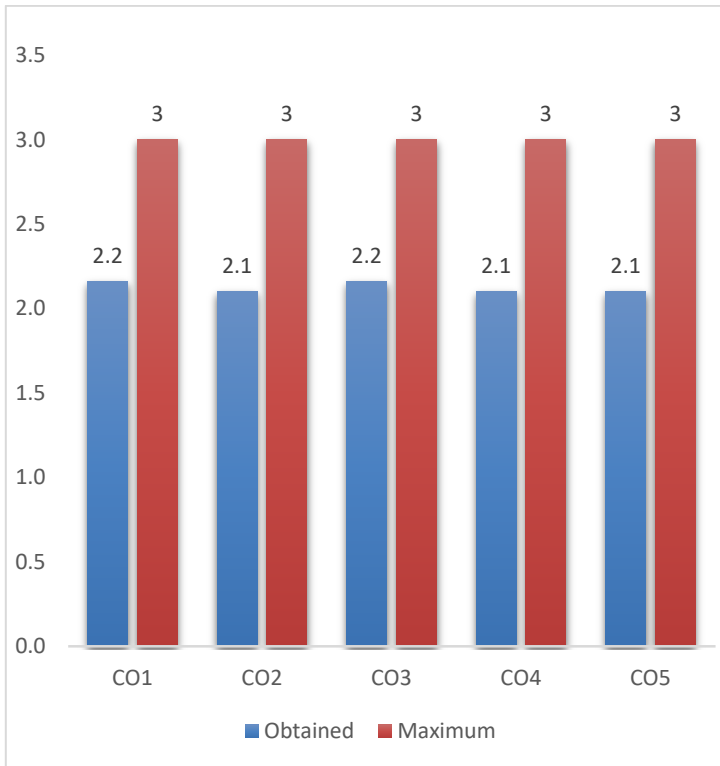
		COURSE OUTCOMES	BLOOMS TAXONOMY LEVEL
CO1	**To distinguish** between words which are either spelt or pronounced alike, yet render distinct meanings; imparting a sound clarity on everyday usage of language, and for developing the art of parallel listening and writing.		II(Understanding)
CO2	**To construct** vocabulary and to gain understanding on the tense component, a pivotal constituent for language structuring and vocabulary building.		III(Applying)
CO3	**To identify** with economical word constructions, paying specific attention in constructing sound writing skills.		IV(Analyzing)
CO4	**To interpret** functional grammar, the basic part involved in sentence constructing to improve linguistic skills.		V(Evaluating)
CO5	**To develop** communication skills to provide a platform for language efficiency for effective language deliver		VI(Creating)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	H	H	S			S	H	S	S		H
C02	H	H	H	H			H	S	H	H	S	H
C03	H	H	H	H	H	H	H	S	S	H	H	H
C04	H		H	H	H	S	H	S		H	H	S
C05	H		H	H	S	H	S	H		H		H

H: Highly Supportive
S: Supportive

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence		co wise internal average	External Exam		co wise external average	co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level		
CO1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	46.0	0.0	2.4	78.0	2.0	2.0	2.2
CO2	100.0	3.0			100.0	3.0			100.0	3.0	46.0	0.0	2.3	78.0	2.0	2.0	2.1
CO3	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0	46.0	0.0	2.4	78.0	2.0	2.0	2.2
CO4			100.0	3.0	100.0	3.0			100.0	3.0	46.0	0.0	2.3	78.0	2.0	2.0	2.1
CO5			100.0	3.0	100.0	3.0			100.0	3.0	46.0	0.0	2.3	78.0	2.0	2.0	2.1

AVERAGE	AVERAGE
2	2.124

OUTCOME	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8	
CO1	H	2.16	H	2.16	H	2.16									H	2.16
CO2	H	2.1	H	2.1	H	2.1	H	2.1					H	2.1		
CO3	H	2.16	H	2.16	H	2.16	H	2.16	H	2.16	H	2.16	H	2.16		
CO4	H	2.1			H	2.1	H	2.1	H	2.1			H	2.1		
CO5	H	2.1			H	2.1	H	2.1			H	2.1			H	2.1
AVERAGE OF COS FOR POS	2.124		2.14		2.124		2.115		2.13		2.13		2.12		2.13	
AVERAGE OF POS	2.1168		2.133333		2.1168		2.115		2.13		2.13		2.12		2.115	
AVERAGE	2.122116667															

COURSE TITLE: VALUE EDUCATION
COURSE CODE: VE18101
CREDITS: 2

DEPARTMENT: B.Sc Computer Science & Cloud Computing

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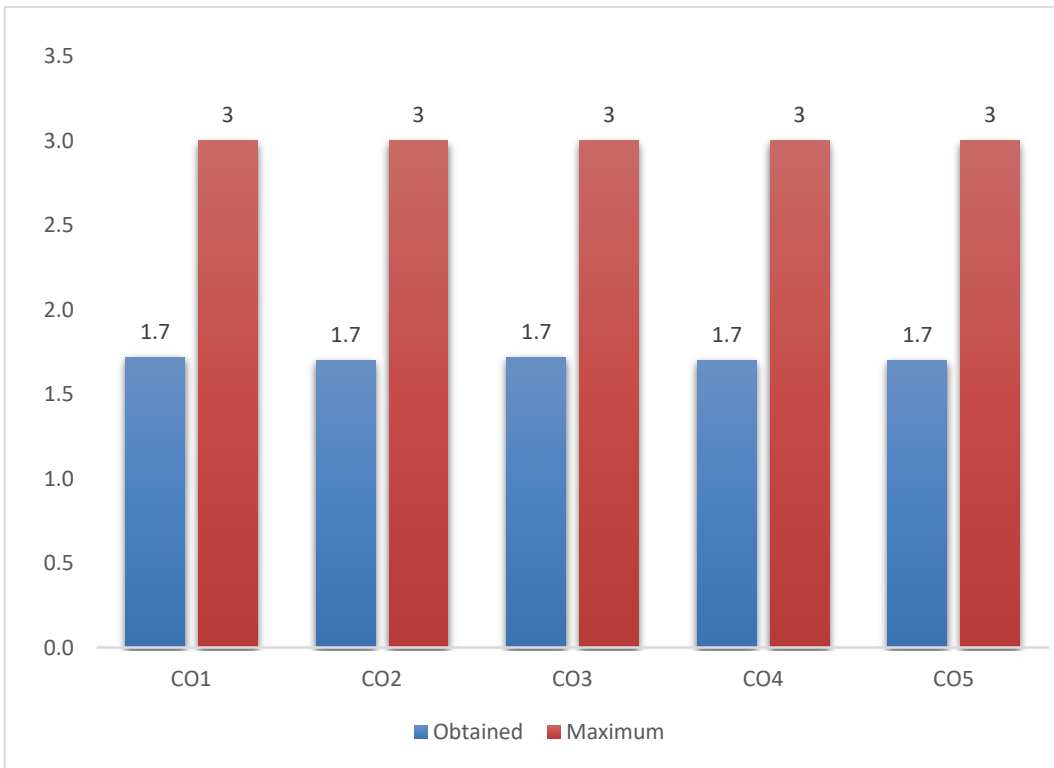
	COURSE OUTCOMES	BLOOMS TAXONOMY LEVEL
CO1	**Differentiate** accepted norms and counter values and to identify the various dimensions of Human Development.	II(Understanding)
CO2	**Demonstrate** Love and Experience of God and identify the Basic Issues of Life and Happiness as a life goal.	I(Remembering)
CO3	**Understand** the importance of Concern for others and critique the various problems that deter the growth of the society.	II(Understanding)
CO4	**Recognize** the traits of a good personality and practice Self-exploration.	I(Remembering)
CO5	**Interpret** the Purpose of Life and Goal Setting and demonstrate Self-management.	V(Evaluating)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
C01	H	H	H	S			S	S	S	S		H
C02	H	H	H	H			H	H	S	H	S	H
C03	H	H	H	H	H	H	H	S	H	H	H	H
C04	H		H	H	S	S	H	S		H	H	S
C05	H		H	H	S	H	S	H		H		H

H: Highly Supportive

S: Supportive

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence		co wise internal average	External Exam		co wise external average	co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level		
CO1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	80.0	2.0	2.8	70.0	1.0	1.0	1.7
CO2	100.0	3.0			100.0	3.0			100.0	3.0	80.0	2.0	2.8	70.0	1.0	1.0	1.7
CO3	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0	80.0	2.0	2.8	70.0	1.0	1.0	1.7
CO4			100.0	3.0	100.0	3.0			100.0	3.0	80.0	2.0	2.8	70.0	1.0	1.0	1.7
CO5			100.0	3.0	100.0	3.0			100.0	3.0	80.0	2.0	2.8	70.0	1.0	1.0	1.7

AVERAGE	AVERAGE
1	1.708

OUTCOME	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8	
CO1	H	1.72	H	1.72	H	1.72										
CO2	H	1.7	H	1.7	H	1.7	H	1.7					H	1.7	H	1.7
CO3	H	1.72	H	1.72	H	1.72	H	1.72	H	1.72	H	1.72	H	1.72		
CO4	H	1.7			H	1.7	H	1.7					H	1.7		
CO5	H	1.7			H	1.7	H	1.7			H	1.7			H	1.7
AVERAGE OF COS FOR POS	1.708		1.713333333		1.708		1.705		1.72		1.71		1.706666667		1.7	
AVERAGE OF POS		1.7056		1.711111		1.7056		1.705		1.72		1.71		1.706667		1.7
AVERAGE		1.707997222														

COURSE TITLE: FUNDAMENTALS OF INFORMATION TECHNOLOGY
COURSE CODE: BS22101
CREDITS: 4

DEPARTMENT: B.Sc Computer Science & Cloud Computing

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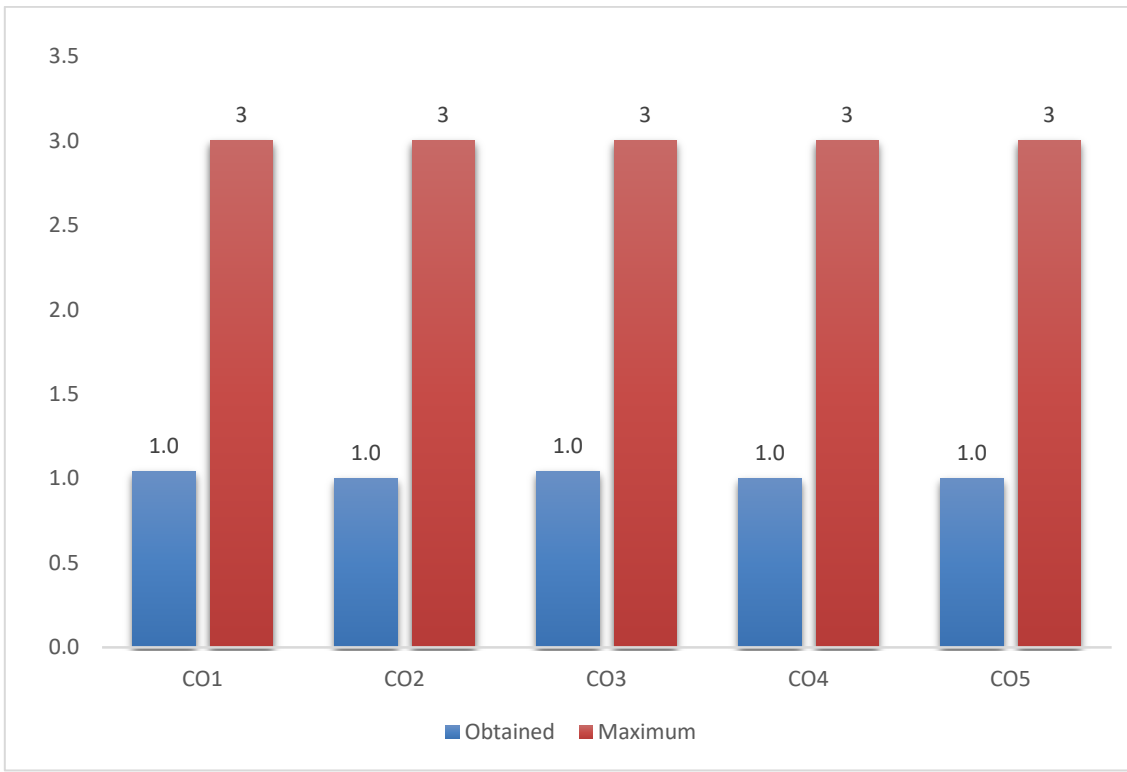|		COURSE OUTCOMES	BLOOMS TAXONOMY LEVEL
CO1	**Understand** basic computer terminology and number systems.		II(Understanding)
CO2	**Learn** about operating systems, and its types.		I(Remembering)
CO3	**Learn** about the applications of Information technology		I(Remembering)
CO4	**Importance** of system development and the phases of SDLC		II(Understanding)
CO5	**Use** of modern means of communications, types of networks and topologies		II(Understanding)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	H	H	S			S	H	H	S		H
C02	H	H	H	H			H	S	S	H	S	H
C03	H	H	H	H	H	H	H	H	S	H	H	H
C04	H		H	H	S	S	H	S		H	H	S
C05	H		H	H	H	H	S	H		H		H

H: Highly Supportive

S: Supportive

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence		co wise internal average	External Exam		co wise external average	co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level		
CO1	96.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	72.0	1.0	2.6	58.0	0.0	0.0	1.0
CO2	96.0	3.0			100.0	3.0			100.0	3.0	72.0	1.0	2.5	58.0	0.0	0.0	1.0
CO3	96.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0	72.0	1.0	2.6	58.0	0.0	0.0	1.0
CO4			100.0	3.0	100.0	3.0			100.0	3.0	72.0	1.0	2.5	58.0	0.0	0.0	1.0
CO5			100.0	3.0	100.0	3.0			100.0	3.0	72.0	1.0	2.5	58.0	0.0	0.0	1.0

AVERAGE	AVERAGE
0	1.016

OUTCOME	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8	
CO1	H	1.04	H	1.04	H	1.04									H	1.04
CO2	H	1	H	1	H	1	H	1					H	1		
CO3	H	1.04	H	1.04	H	1.04	H	1.04	H	1.04	H	1.04	H	1.04	H	1.04
CO4	H	1			H	1	H	1					H	1		
CO5	H	1			H	1	H	1	H	1	H	1			H	1
AVERAGE OF COS FOR POS	1.016		1.026666667		1.016		1.01		1.02		1.02		1.013333333		1.026666667	
AVERAGE OF POS		1.0112		1.022222		1.0112		1.01		1.02		1.02		1.013333		1.022222
AVERAGE		1.016272222														

COURSE TITLE: MATHEMATICS-I
COURSE CODE: BS19101
CREDITS: 4

DEPARTMENT: B.Sc Computer Science & Cloud Computing

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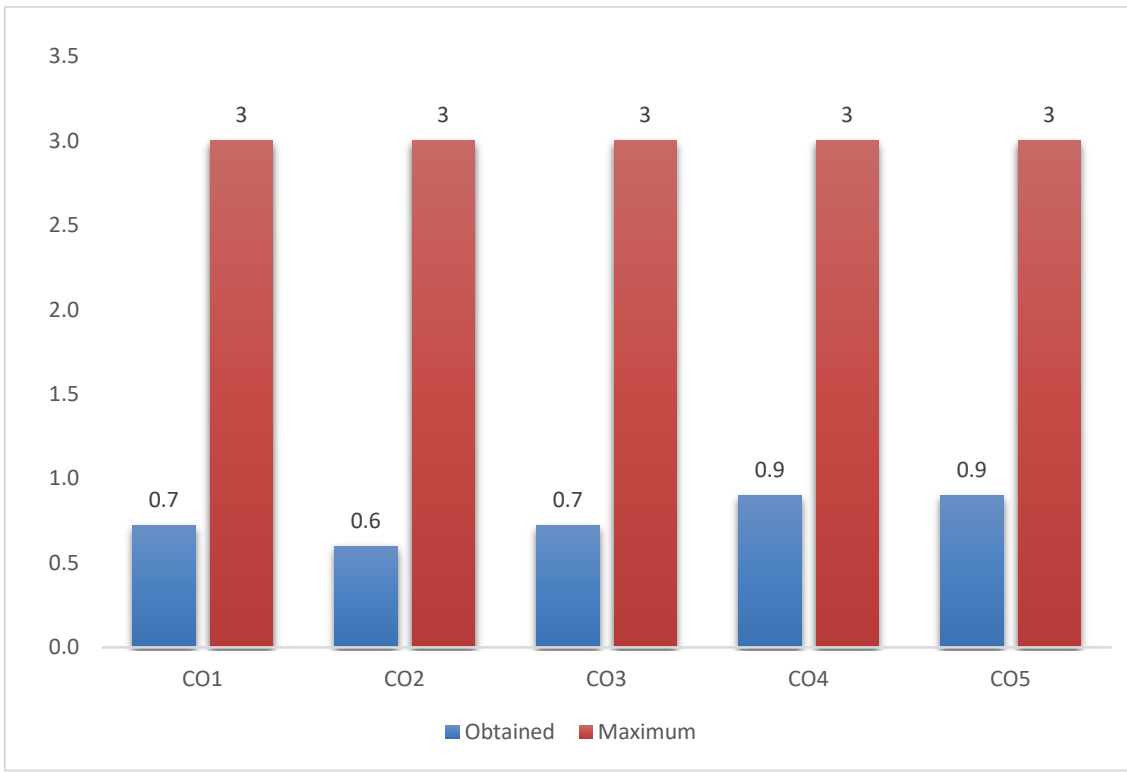
	COURSE OUTCOMES	BLOOMS TAXONOMY LEVEL
CO1	**Categorize** the differential equations with respect to their order and linearity. Solve differential equations of first order using numerical and analytical methods such as Integrating Factors.	II(Understanding)
CO2	**Analyze** and Solve basic application problems described by first order differential equations. Such orthogonal trajectories.	IV(Analyzing)
CO3	**Solve** second order Homogeneous Equations with Constant Coefficients. Obtain exact and numerical solutions using differential equations technology.	III(Applying)
CO4	**Combine** the necessary Laplace transform techniques to solve second-order ordinary differential equations. Solve the Laplace transform of standard functions.	II(Understanding)
CO5	**Analyze** a Fourier series of a given periodic function by evaluating Fourier coefficients.	IV(Analyzing)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
C01	H	H	H	S			S	H	S	S		H
C02	H	H	H	H			H	S	S	H	S	H
C03	H	H	H	H	H	H	H	S	H	H	H	H
C04	H	S	H	H	H	S	H	S			H	H	S
C05	H		H	H	S	H	S	H		H		H

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co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence		co wise internal average	External Exam		co wise external average	co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level		
CO1	54.0	0.0			100.0	3.0	100.0	3.0	100.0	3.0	60.0	0.0	1.8	2.0	0.0	0.0	0.7
CO2	54.0	0.0			100.0	3.0			100.0	3.0	60.0	0.0	1.5	2.0	0.0	0.0	0.6
CO3	54.0	0.0	100.0	3.0	100.0	3.0			100.0	3.0	60.0	0.0	1.8	2.0	0.0	0.0	0.7
CO4			100.0	3.0	100.0	3.0			100.0	3.0	60.0	0.0	2.3	2.0	0.0	0.0	0.9
CO5			100.0	3.0	100.0	3.0			100.0	3.0	60.0	0.0	2.3	2.0	0.0	0.0	0.9

AVERAGE	AVERAGE
0	0.768

OUTCOME	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8	
CO1	H	0.72	H	0.72	H	0.72									H	0.72
CO2	H	0.6	H	0.6	H	0.6	H	0.6					H	0.6		
CO3	H	0.72	H	0.72	H	0.72	H	0.72	H	0.72	H	0.72	H	0.72		
CO4	H	0.9			H	0.9	H	0.9	H	0.9			H	0.9		
CO5	H	0.9			H	0.9	H	0.9			H	0.9			H	0.9
AVERAGE OF COS FOR POS	0.768		0.68		0.768		0.78		0.81		0.81		0.74		0.81	
AVERAGE OF POS	0.7776		0.666667		0.7776		0.78		0.81		0.81		0.74		0.855	
AVERAGE	0.777108333															

COURSE TITLE: OPERATING SYSTEMS
COURSE CODE: CSCC22101
CREDITS: 4

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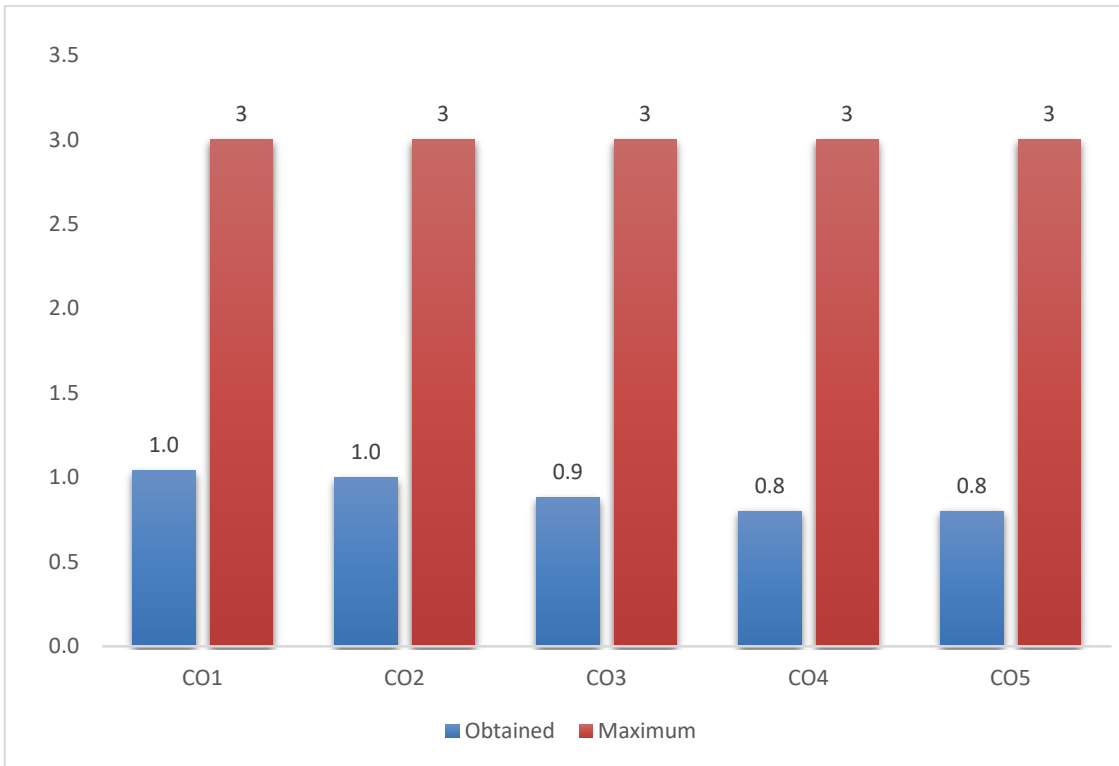
	COURSE OUTCOMES	BLOOMS TAXONOMY LEVEL
CO1	**Explain** functions, types and structures of operating system	II(Understanding)
CO2	**Analyze** various process management concepts including scheduling and synchronization	IV(Analyzing)
CO3	**Illustrate** the concepts of memory management and I/O system.	I(Remembering)
CO4	**Solve** issues related to file system interface.	III(Applying)
CO5	**Choose** an appropriate Page replacement algorithm	V(Evaluating)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	H	H	S			S	S	S	S		H
C02	H	H	H	H			H	H	S	H	S	H
C03	H	H	H	H	H	H	H	S	H	H	H	H
C04	H		H	H	S	S	H	H		H	H	S
C05	H		H	H	S	H	S	H		H		H

H: Highly Supportive

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co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence		co wise internal average	External Exam		co wise external average	co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level		
C01	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	68.0	1.0	2.6	34.0	0.0	0.0	1.0
C02	100.0	3.0			100.0	3.0			100.0	3.0	68.0	1.0	2.5	34.0	0.0	0.0	1.0
C03	100.0	3.0	70.0	1.0	100.0	3.0			100.0	3.0	68.0	1.0	2.2	34.0	0.0	0.0	0.9
C04			70.0	1.0	100.0	3.0			100.0	3.0	68.0	1.0	2.0	34.0	0.0	0.0	0.8
C05			70.0	1.0	100.0	3.0			100.0	3.0	68.0	1.0	2.0	34.0	0.0	0.0	0.8

AVERAGE	AVERAGE
0	0.904

OUTCOME	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8	
CO1	H	1.04	H	1.04	H	1.04										
CO2	H	1	H	1	H	1	H	1					H	1	H	1
CO3	H	0.88	H	0.88	H	0.88	H	0.88	H	0.88	H	0.88	H	0.88		
CO4	H	0.8			H	0.8	H	0.8					H	0.8	H	0.8
CO5	H	0.8			H	0.8	H	0.8			H	0.8			H	0.8
AVERAGE OF COS FOR POS	0.904		0.973333333		0.904		0.87		0.88		0.84		0.893333333		0.866666667	
AVERAGE OF POS		0.8768		0.951111		0.8768		0.87		0.88		0.84		0.893333		0.866667
AVERAGE		0.881838889														

COURSE TITLE: PROBLEM SOLVING & PROGRAMMING THROUGH C
COURSE CODE: BS22103
CREDITS: 4

DEPARTMENT: B.Sc Computer Science & Cloud Computing

PROGRAMME OUTCOMES (B.Sc CSCC):
- **PO1**.**Disciplinary Knowledge**: Capable of demonstrating comprehensive knowledge and understanding of computer science with specialization in Cloud computing.

- **PO2. Scientific Reasoning:** Ability to analyze, and understand concepts in computer science, critically evaluates ideas, logical reasoning and experience in programming, algorithm development and application development.

- **PO3. Problem Solving:** Capacity to extrapolate and apply competencies to solve different kinds of non-familiar problems, such as design cloud-based Solutions/Architecture, develop and deploy scalable cloud application using popular cloud platforms, build public cloud.

- **PO4.** Master the practical and theoretical aspects of virtualization technologies, cloud technologies, data centers, networking, and operating systems

- **PO5.** Implement basic cloud-based solutions, configure basic networks and operating system, and demonstrate functional knowledge of Windows Azure and Amazon cloud services.

- **PO6**. Be able to understand the role of Computer Science in solving real time problems in society.

- **PO7.** Know the recent developments IT, future possibilities and limitations, and understand the value of lifelong learning.

- **PO8.** Get an ability to participate in debates, discussions in the society constructively

PROGRAMME SPECIFIC OUTCOMES (DEPARTMENTAL):
Students will be able to:

- **PSO1:** Become technology-oriented with the knowledge and ability to develop creative solutions, and better understand the effects of future developments of computer systems and technology on people and society as a whole.

- **PSO2**: Design cloud-based solutions or architecture and use the popular cloud platforms to develop and deploy cloud applications.

- **PSO3**: Provide computer-based solutions for real-life problems by developing specific software products.

- **PSO4:** Design and develop highly scalable cloud-based applications by configuring virtual machines on the cloud.

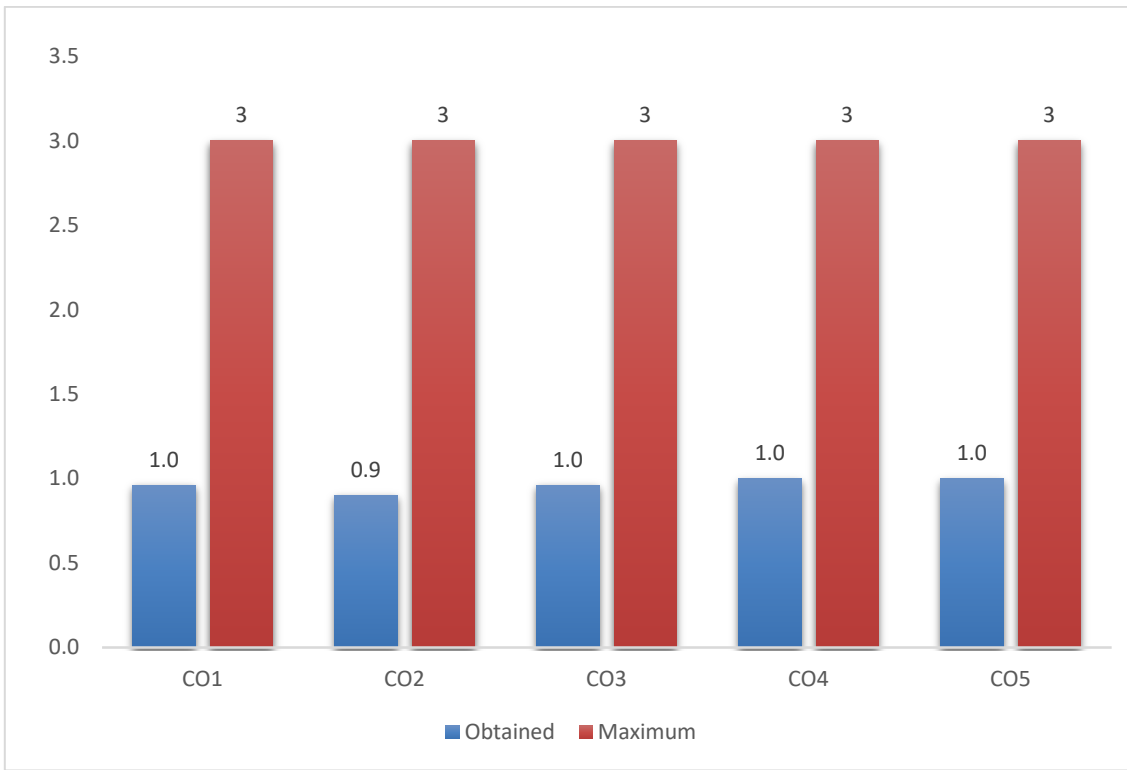|	COURSE OUTCOMES	BLOOMS TAXONOMY LEVEL
CO1	**Understand** the basic introduction of computer and programming language.	II(Understanding)
CO2	**Identify** 'C' data types, operators and data input /output functions.	IV(Analyzing)
CO3	**Categorize** 'C' control structures, arrays and string concept.	II(Understanding)
CO4	**Explain** 'C' function, recursion, pointers and dynamic memory allocation.	II(Understanding)
CO5	**Express** the concept of structures, union and file handling in 'C'.	II(Understanding)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	H	H	S			S	S	S	S		H
C02	H	H	H	H			H	H	S	H	S	H
C03	H	H	H	H	H	H	H	S	H	H	H	H
C04	H		H	H	S	S	H	S		H	H	S
C05	H		H	H	S	H	S	H		H		H

H: Highly Supportive

S: Supportive

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence		co wise internal average	External Exam		co wise external average	co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level		
C01	76.0	2.0			100.0	3.0	100.0	3.0	100.0	3.0	72.0	1.0	2.4	12.0	0.0	0.0	1.0
C02	76.0	2.0			100.0	3.0			100.0	3.0	72.0	1.0	2.3	12.0	0.0	0.0	0.9
C03	76.0	2.0	88.0	3.0	100.0	3.0			100.0	3.0	72.0	1.0	2.4	12.0	0.0	0.0	1.0
C04			88.0	3.0	100.0	3.0			100.0	3.0	72.0	1.0	2.5	12.0	0.0	0.0	1.0
C05			88.0	3.0	100.0	3.0			100.0	3.0	72.0	1.0	2.5	12.0	0.0	0.0	1.0

AVERAGE	AVERAGE
0	0.964

OUTCOME	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8	
CO1	H	0.96	H	0.96	H	0.96										
CO2	H	0.9	H	0.9	H	0.9	H	0.9					H	0.9	H	0.9
CO3	H	0.96	H	0.96	H	0.96	H	0.96	H	0.96	H	0.96	H	0.96		
CO4	H	1			H	1	H	1					H	1		
CO5	H	1			H	1	H	1			H	1			H	1
AVERAGE OF COS FOR POS	0.964		0.94		0.964		0.965		0.96		0.98		0.953333333		0.95	
AVERAGE OF POS		0.9648		0.933333		0.9648		0.965		0.96		0.98		0.953333		0.95
AVERAGE	0.958908333															

COURSE TITLE: GENERAL ENGLISH - II
COURSE CODE: EN18201
CREDITS: 3

DEPARTMENT: B.Sc Computer Science & Cloud Computing

PROGRAMME OUTCOMES (B.Sc CSCC):

- **PO1.Disciplinary Knowledge**: Capable of demonstrating comprehensive knowledge and understanding of computer science with specialization in Cloud computing.

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PROGRAMME SPECIFIC OUTCOMES (DEPARTMENTAL):
Students will be able to:

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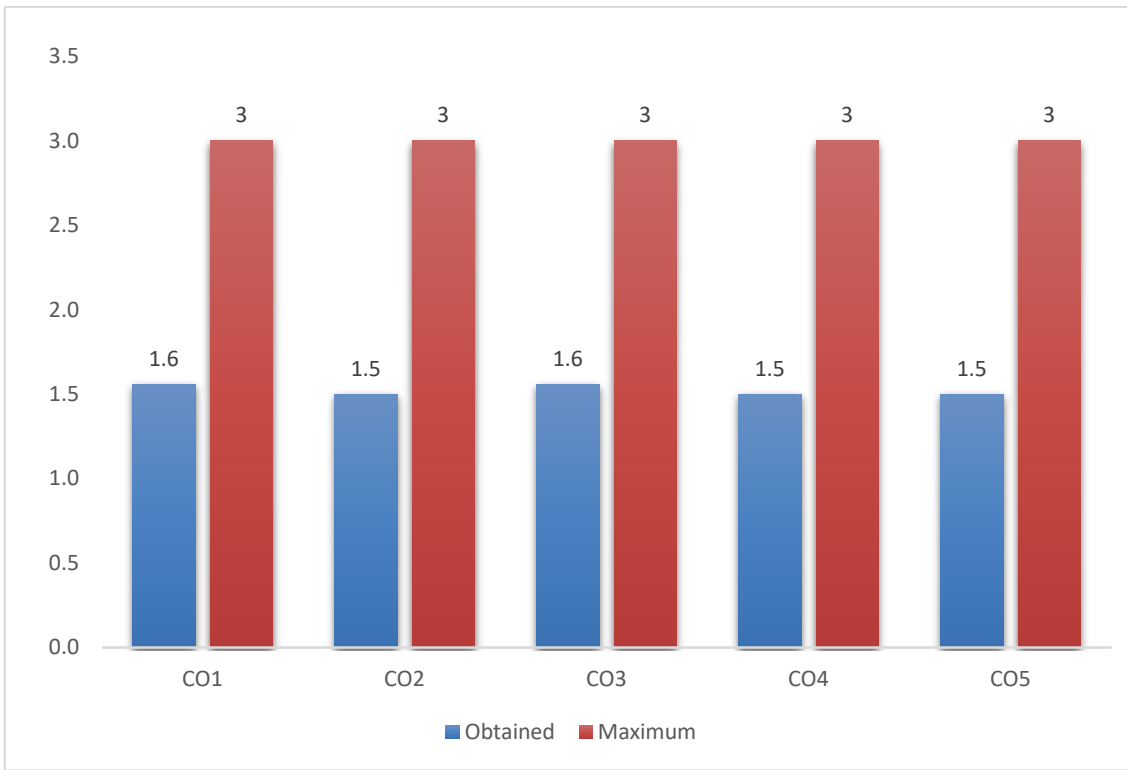
	COURSE OUTCOMES	BLOOMS TAXONOMY LEVEL
CO1	**To identify** a sound understanding on the formation of words and to demonstrate the functional grammatical component in the sentence.	IV(Analyzing)
CO2	**To paraphrase** ideas and thoughts in a coherent, neat and organized manner in order to utilize the writing skills for sound writing propagandas.	VI(Creating)
CO3	**To create** an understanding on Indian Literature, alongside to develop and chisel their communication skills.	VI(Creating)
CO4	**To recognize** the moral element which underlies in the short story; an exposure to informal language.	I(Remembering)
CO5	**To develop** listening and speaking skills through effective sentence constructions and efficient delivery.	V(Evaluating)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	H	H	S			S	H	S	S		H
C02	H	H	H	H			H	S	H	H	S	H
C03	H	H	H	H	H	H	H	S	S	H	H	H
C04	H		H	H	S	S	H	S		H	H	S
C05	H	S	H	H	S	H	S	H		H		H

H: Highly Supportive

S: Supportive

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence		co wise internal average	External Exam		co wise external average	co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level		
C01	97.9	3.0			100.0	3.0	100.0	3.0	100.0	3.0	52.1	0.0	2.4	68.8	1.0	1.0	1.6
C02	97.9	3.0			100.0	3.0			100.0	3.0	52.1	0.0	2.3	68.8	1.0	1.0	1.5
C03	97.9	3.0	100.0	3.0	100.0	3.0			100.0	3.0	52.1	0.0	2.4	68.8	1.0	1.0	1.6
C04			100.0	3.0	100.0	3.0			100.0	3.0	52.1	0.0	2.3	68.8	1.0	1.0	1.5
C05			100.0	3.0	100.0	3.0			100.0	3.0	52.1	0.0	2.3	68.8	1.0	1.0	1.5

AVERAGE	AVERAGE
1	1.524

OUTCOME	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8	
CO1	H	1.56	H	1.56	H	1.56									H	1.56
CO2	H	1.5	H	1.5	H	1.5	H	1.5					H	1.5		
CO3	H	1.56	H	1.56	H	1.56	H	1.56	H	1.56	H	1.56	H	1.56		
CO4	H	1.5			H	1.5	H	1.5					H	1.5		
CO5	H	1.5			H	1.5	H	1.5			H	1.5			H	1.5
AVERAGE OF COS FOR POS	1.524		1.54		1.524		1.515		1.56		1.53		1.52		1.53	
AVERAGE OF POS		1.5168		1.533333		1.5168		1.515		1.56		1.53		1.52		1.515
AVERAGE	1.525866667															

COURSE TITLE: INDIAN HERITAGE & CULTURE
COURSE CODE: IC19201
CREDITS: 3

DEPARTMENT: B.Sc Computer Science & Cloud Computing

PROGRAMME OUTCOMES (B.Sc CSCC):
- **PO1.Disciplinary Knowledge**: Capable of demonstrating comprehensive knowledge and understanding of computer science with specialization in Cloud computing.

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PROGRAMME SPECIFIC OUTCOMES (DEPARTMENTAL):
Students will be able to:

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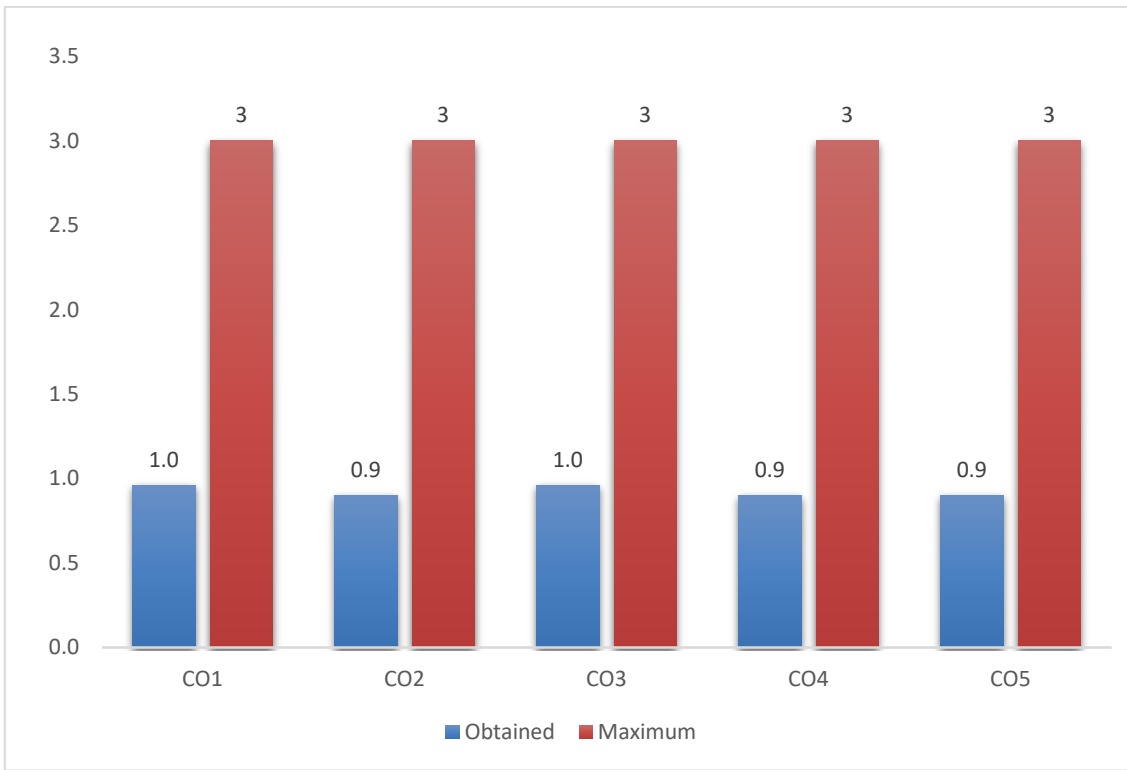
	COURSE OUTCOMES	BLOOMS TAXONOMY LEVEL
CO1	**Understand** better about the origin of ancient Indian culture the contributions of great rulers from both north and south India for Indian culture in ancient days.	II(Understanding)
CO2	**Analyse** how Persian culture entered into India and it influence the Fine Arts of Indian society like Classical Music, Dance and Architecture.	IV(Analyzing)
CO3	**Assess** how the Indian orthodox society turn into modern and western society in the 19th century. It also edifies the students with spiritual doctrines of various Religions.	V(Evaluating)
CO4	**Evaluate** various challenges face by the youth and the evils effects of terrorism on society.	V(Evaluating)
CO5	**Create** belongingness among the students by bringing awareness of the rights and duties to make the world a better place and it throw light on gender sensitization issues of women, Children and LGBT.	VI(Creating)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	H	H	S			S	H	S	S		H
C02	H	H	H	H			H	S	H	H	S	H
C03	H	H	H	H	H	H	H	S	H	H	H	H
C04	H		H	H	S	S	H	H		H	H	S
C05	H		H	H	S	H	S	H		H		H

H: Highly Supportive

S: Supportive

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence		co wise internal average	External Exam		co wise external average	co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level		
CO1	100.0	3.0			97.9	3.0	97.9	3.0	97.9	3.0	43.8	0.0	2.4	27.1	0.0	0.0	1.0
CO2	100.0	3.0			97.9	3.0			97.9	3.0	43.8	0.0	2.3	27.1	0.0	0.0	0.9
CO3	100.0	3.0	100.0	3.0	97.9	3.0			97.9	3.0	43.8	0.0	2.4	27.1	0.0	0.0	1.0
CO4			100.0	3.0	97.9	3.0			97.9	3.0	43.8	0.0	2.3	27.1	0.0	0.0	0.9
CO5			100.0	3.0	97.9	3.0			97.9	3.0	43.8	0.0	2.3	27.1	0.0	0.0	0.9

AVERAGE	AVERAGE
0	0.924

OUTCOME	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8	
CO1	H	0.96	H	0.96	H	0.96									H	0.96
CO2	H	0.9	H	0.9	H	0.9	H	0.9					H	0.9		
CO3	H	0.96	H	0.96	H	0.96	H	0.96	H	0.96	H	0.96	H	0.96		
CO4	H	0.9			H	0.9	H	0.9					H	0.9	H	0.9
CO5	H	0.9			H	0.9	H	0.9			H	0.9			H	0.9
AVERAGE OF COS FOR POS	0.924		0.94		0.924		0.915		0.96		0.93		0.92		0.92	
AVERAGE OF POS		0.9168		0.933333		0.9168		0.915		0.96		0.93		0.92		0.906667
AVERAGE		0.924825														

COURSE TITLE: IT HARDWARE AND NETWORKING
COURSE CODE: CSCC22201
CREDITS: 3

DEPARTMENT: B.Sc Computer Science & Cloud Computing

PROGRAMME OUTCOMES (B.Sc CSCC):

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PROGRAMME SPECIFIC OUTCOMES (DEPARTMENTAL):
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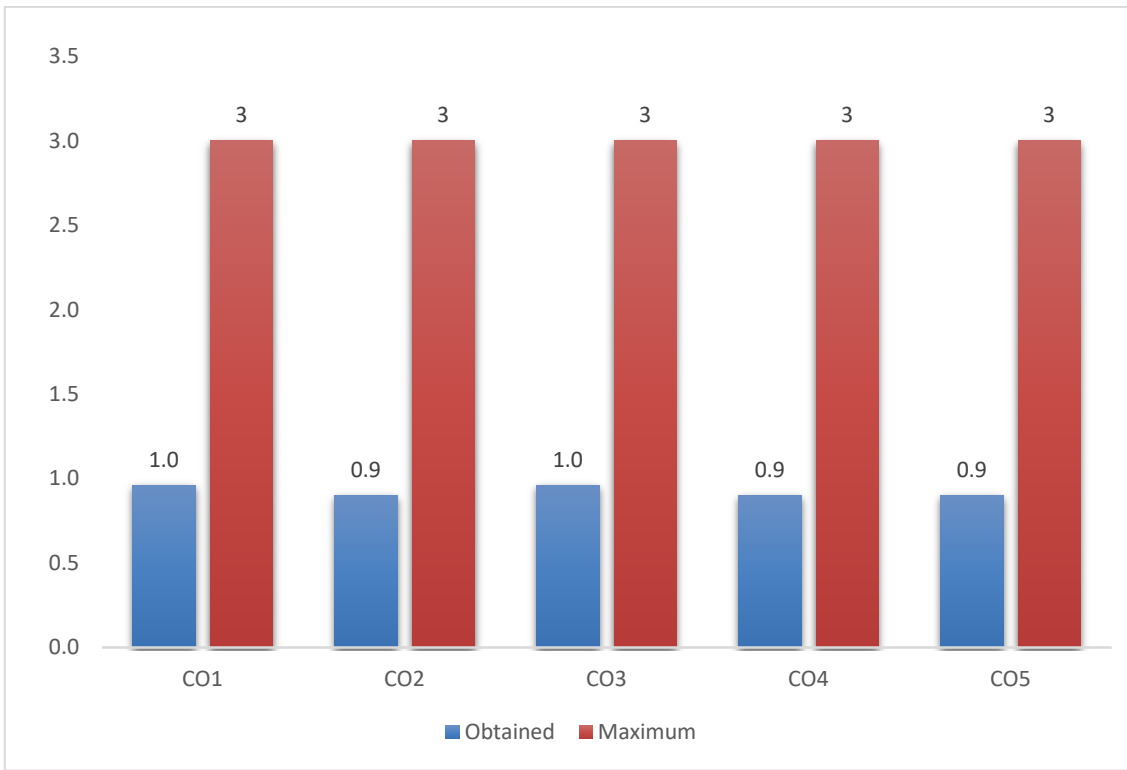
	COURSE OUTCOMES	BLOOMS TAXONOMY LEVEL
CO1	**Identify** Motherboard and its components.	I(Remembering)
CO2	**Explain** the working of various storage devices.	II(Understanding)
CO3	**Analyze** the working of Power supply devices.	IV(Analyzing)
CO4	**Identify** different types of networking devices.	I(Remembering)
CO5	**Implement** different types of Topologies.	III(Apply)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
C01	H	H	H	S			S	S	S	S		H
C02	H	H	H	H			H	H	S	H	S	H
C03	H	H	H	H	H	H	H	S	S	H	H	H
C04	H		H	H	S	S	H	S		H	H	S
C05	H		H	H	H	H	S	H		H		H

H: Highly Supportive

S: Supportive

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence		co wise internal average	External Exam		co wise external average	co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level		
CO1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	62.5	0.0	2.4	37.5	0.0	0.0	1.0
CO2	100.0	3.0			100.0	3.0			100.0	3.0	62.5	0.0	2.3	37.5	0.0	0.0	0.9
CO3	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0	62.5	0.0	2.4	37.5	0.0	0.0	1.0
CO4			100.0	3.0	100.0	3.0			100.0	3.0	62.5	0.0	2.3	37.5	0.0	0.0	0.9
CO5			100.0	3.0	100.0	3.0			100.0	3.0	62.5	0.0	2.3	37.5	0.0	0.0	0.9

AVERAGE	AVERAGE
0	0.924

OUTCOME	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8	
CO1	H	0.96	H	0.96	H	0.96										
CO2	H	0.9	H	0.9	H	0.9	H	0.9					H	0.9	H	0.9
CO3	H	0.96	H	0.96	H	0.96	H	0.96	H	0.96	H	0.96	H	0.96		
CO4	H	0.9			H	0.9	H	0.9					H	0.9		
CO5	H	0.9			H	0.9	H	0.9	H	0.9	H	0.9			H	0.9
AVERAGE OF COS FOR POS	0.924		0.94		0.924		0.915		0.93		0.93		0.92		0.9	
AVERAGE OF POS		0.9168		0.933333		0.9168		0.915		0.93		0.93		0.92		0.9
AVERAGE	0.920241667															

COURSE TITLE: MATHEMATICS-II (VECTOR CALCULUS & MATRICES)
COURSE CODE: BS18201
CREDITS: 3

DEPARTMENT: B.Sc Computer Science & Cloud Computing

PROGRAMME OUTCOMES (B.Sc CSCC):
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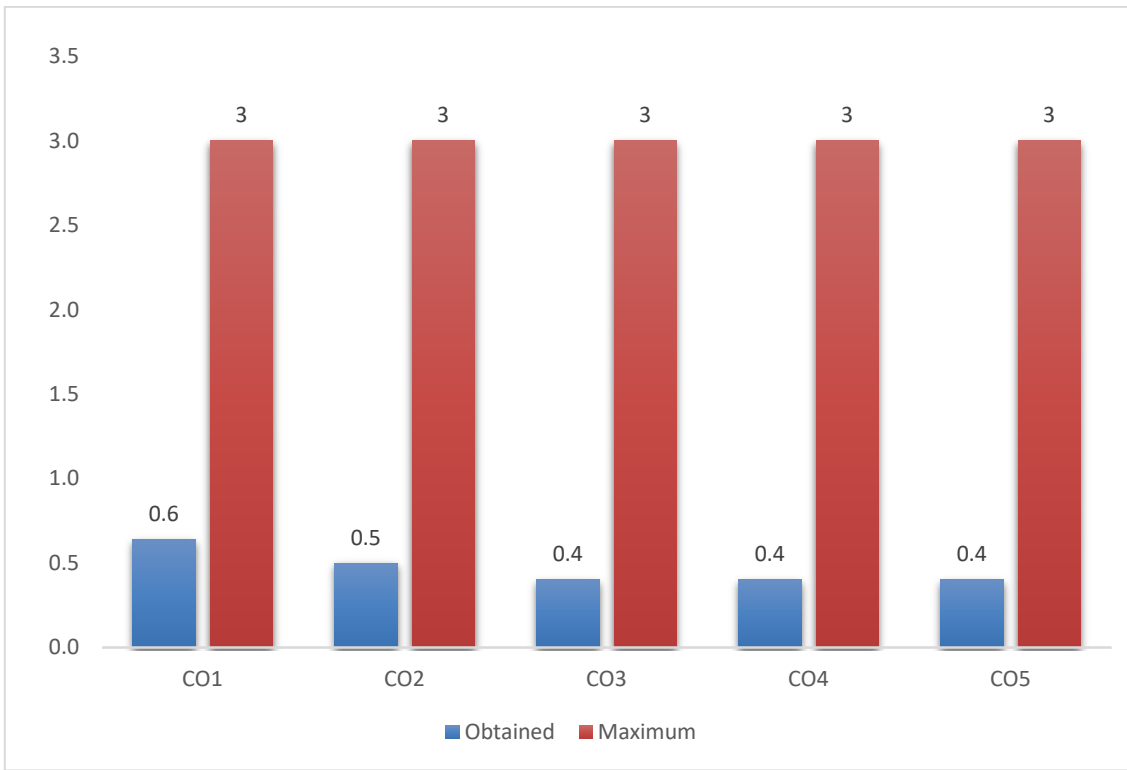
	COURSE OUTCOMES	BLOOMS TAXONOMY LEVEL
CO1	**Apply** the vector differential operator to scalar and vector functions.	III(Apply)
CO2	**Determine** gradient vector fields and find potential functions.	III(Apply)
CO3	**Evaluate** line, surface & volume integrals by Greens, Gauss and Stoke's theorems.	V(Evaluating)
CO4	**Understand** to find the rank of a matrix and to solve systems of linear equations applyingmatrix techniques.	II(Understanding)
CO5	**Determine** eigenvalues and eigenvectors of a given matrix and to **apply** these concepts to quadratic forms.	III(Apply)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	H	H	S			S	H	S	S		H
C02	H	H	H	H			H	S	S	H	S	H
C03	H	H	H	H	H	H	H	S	S	H	H	H
C04	H		H	H	S	S	H	H		H	H	S
C05	H		H	H	S	H	S	H		H		H

H: Highly Supportive

S: Supportive

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence		co wise internal average	External Exam		co wise external average	co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level		
CO1	72.9	1.0			79.2	2.0	95.8	3.0	79.2	2.0	56.3	0.0	1.6	20.8	0.0	0.0	0.6
CO2	72.9	1.0			79.2	2.0			79.2	2.0	56.3	0.0	1.3	20.8	0.0	0.0	0.5
CO3	72.9	1.0	64.6	0.0	79.2	2.0			79.2	2.0	56.3	0.0	1.0	20.8	0.0	0.0	0.4
CO4			64.6	0.0	79.2	2.0			79.2	2.0	56.3	0.0	1.0	20.8	0.0	0.0	0.4
CO5			64.6	0.0	79.2	2.0			79.2	2.0	56.3	0.0	1.0	20.8	0.0	0.0	0.4

AVERAGE	AVERAGE
0	0.468

OUTCOME	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8	
CO1	H	0.64	H	0.64	H	0.64									H	0.64
CO2	H	0.5	H	0.5	H	0.5	H	0.5					H	0.5		
CO3	H	0.4	H	0.4	H	0.4	H	0.4	H	0.4	H	0.4	H	0.4		
CO4	H	0.4			H	0.4	H	0.4					H	0.4	H	0.4
CO5	H	0.4			H	0.4	H	0.4			H	0.4			H	0.4
AVERAGE OF COS FOR POS	0.468		0.513333333		0.468		0.425		0.4		0.4		0.433333333		0.48	
AVERAGE OF POS		0.4336		0.471111		0.4336		0.425		0.4		0.4		0.433333		0.426667
AVERAGE	0.427913889															

COURSE TITLE: COMPUTER NETWORKS
COURSE CODE: CSCC22202
CREDITS: 3

DEPARTMENT: B.Sc Computer Science & Cloud Computing

PROGRAMME OUTCOMES (B.Sc CSCC):

- **PO1.Disciplinary Knowledge**: Capable of demonstrating comprehensive knowledge and understanding of computer science with specialization in Cloud computing.

- **PO2. Scientific Reasoning:** Ability to analyze, and understand concepts in computer science, critically evaluates ideas, logical reasoning and experience in programming, algorithm development and application development.

- **PO3. Problem Solving:** Capacity to extrapolate and apply competencies to solve different kinds of non-familiar problems, such as design cloud-based Solutions/Architecture, develop and deploy scalable cloud application using popular cloud platforms, build public cloud.

- **PO4.** Master the practical and theoretical aspects of virtualization technologies, cloud technologies, data centers, networking, and operating systems

- **PO5.** Implement basic cloud-based solutions, configure basic networks and operating system, and demonstrate functional knowledge of Windows Azure and Amazon cloud services.

- **PO6**. Be able to understand the role of Computer Science in solving real time problems in society.

- **PO7.** Know the recent developments IT, future possibilities and limitations, and understand the value of lifelong learning.

- **PO8.** Get an ability to participate in debates, discussions in the society constructively

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PROGRAMME SPECIFIC OUTCOMES (DEPARTMENTAL):
Students will be able to:

- **PSO1:** Become technology-oriented with the knowledge and ability to develop creative solutions, and better understand the effects of future developments of computer systems and technology on people and society as a whole.

- **PSO2**: Design cloud-based solutions or architecture and use the popular cloud platforms to develop and deploy cloud applications.

- **PSO3**: Provide computer-based solutions for real-life problems by developing specific software products.

- **PSO4:** Design and develop highly scalable cloud-based applications by configuring virtual machines on the cloud.
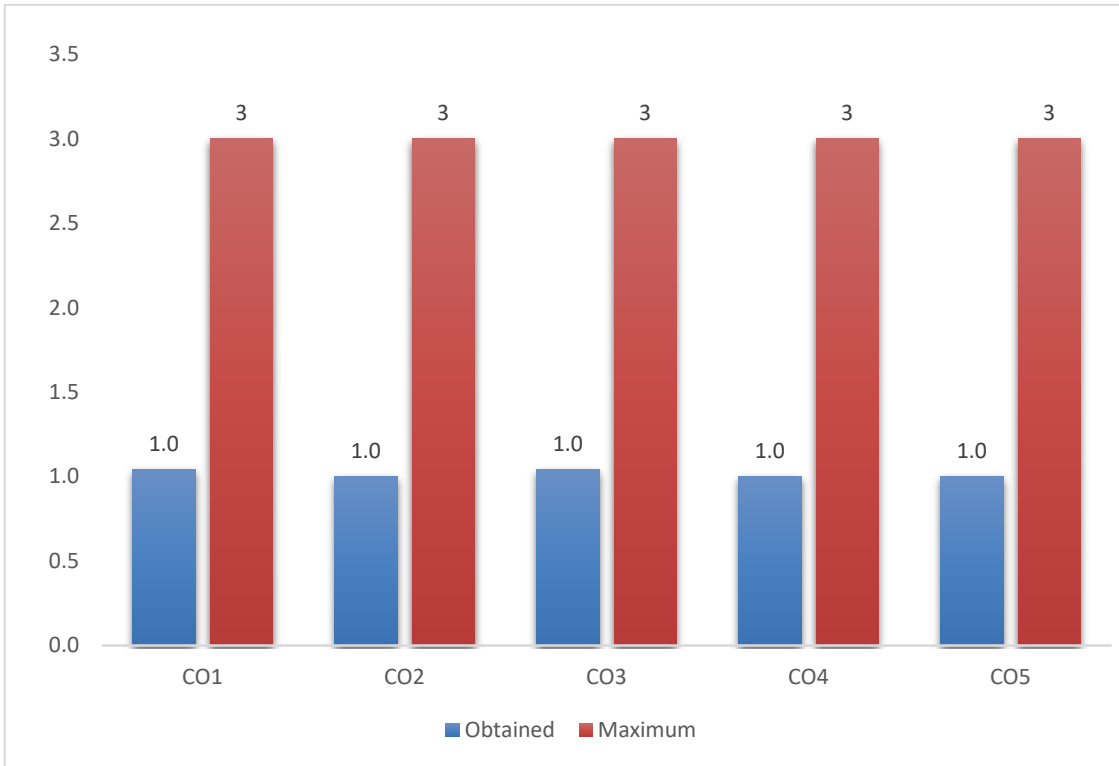
	COURSE OUTCOMES	BLOOMS TAXONOMY LEVEL
CO1	**Understand** and identify basic computer network topologies and protocols and explainData Communication System components.	II(Understanding)
CO2	**Describe** the functions of each layer in OSI model and its protocols.	II(Understanding)
CO3	**Classify** different error detecting techniques.	IV(Analyze)
CO4	**Build** skills of sub-netting and routing mechanisms.	VI(Create)
CO5	**Classify** the routing protocols and analyze how to assign the IP addresses for the givennetwork.	IV(Analyze)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	H	H	S			S	H	H	S		H
C02	H	H	H	H			H	S	S	H	S	H
C03	H	H	H	H	H	H	H	S	S	H	H	H
C04	H		H	H	S	S	H	S		H	H	S
C05	H		H	H	H	H	S	H	H	H		H

H: Highly Supportive

S: Supportive

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence		co wise internal average	External Exam		co wise external average	co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level		
CO1	91.7	3.0			100.0	3.0	100.0	3.0	100.0	3.0	68.8	1.0	2.6	37.5	0.0	0.0	1.0
CO2	91.7	3.0			100.0	3.0			100.0	3.0	68.8	1.0	2.5	37.5	0.0	0.0	1.0
CO3	91.7	3.0	95.8	3.0	100.0	3.0			100.0	3.0	68.8	1.0	2.6	37.5	0.0	0.0	1.0
CO4			95.8	3.0	100.0	3.0			100.0	3.0	68.8	1.0	2.5	37.5	0.0	0.0	1.0
CO5			95.8	3.0	100.0	3.0			100.0	3.0	68.8	1.0	2.5	37.5	0.0	0.0	1.0

AVERAGE	AVERAGE
0	1.016

OUTCOME	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8	
CO1	H	1.04	H	1.04	H	1.04									H	1.04
CO2	H	1	H	1	H	1	H	1					H	1		
CO3	H	1.04	H	1.04	H	1.04	H	1.04	H	1.04	H	1.04	H	1.04		
CO4	H	1			H	1	H	1					H	1		
CO5	H	1			H	1	H	1	H	1	H	1			H	1
AVERAGE OF COS FOR POS	1.016		1.026666667		1.016		1.01		1.02		1.02		1.013333333		1.02	
AVERAGE OF POS		1.0112		1.022222		1.0112		1.01		1.02		1.02		1.013333		1.01
AVERAGE		1.014744444														

COURSE TITLE: DATA STRUCTURES THROUGH C
COURSE CODE: BS18202
CREDITS: 3

DEPARTMENT: B.Sc Computer Science & Cloud Computing

PROGRAMME OUTCOMES (B.Sc CSCC):
- **PO1**.**Disciplinary Knowledge**: Capable of demonstrating comprehensive knowledge and understanding of computer science with specialization in Cloud computing.

- **PO2. Scientific Reasoning:** Ability to analyze, and understand concepts in computer science, critically evaluates ideas, logical reasoning and experience in programming, algorithm development and application development.

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PROGRAMME SPECIFIC OUTCOMES (DEPARTMENTAL):
Students will be able to:

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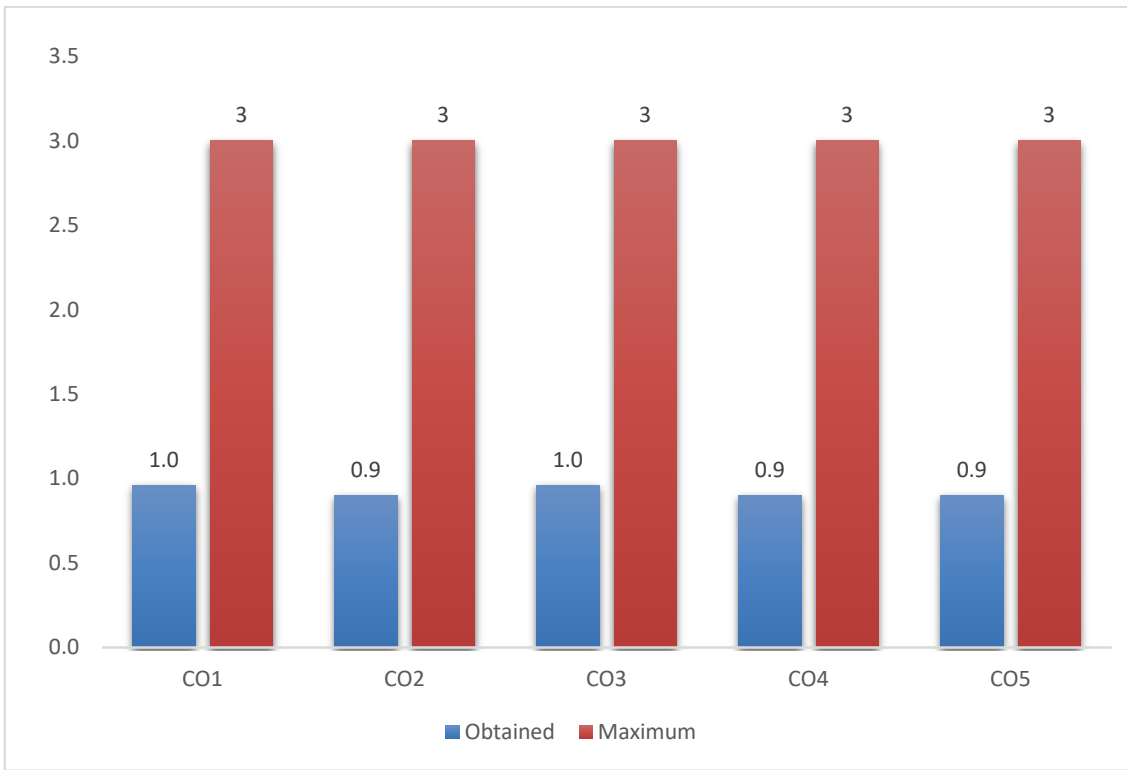
	COURSE OUTCOMES	BLOOMS TAXONOMY LEVEL
CO1	**Choose** appropriate data structures to represent data items in real world problems	IV(Analyze)
CO2	**Illustrate** non-linear data structures like linked list.	I(Remembering)
CO3	**Organize** the data using sorting in various linear data structures complexity.	IV(Analyze)
CO4	**Construct** data with nonlinear data structure using trees.	VI(Create)
CO5	**Explain** the concept of graphs and b trees.	II(Understanding)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	H	H	S		H	S	H	H	S		H
C02	H	H	H	H			H	S	S	H	S	H
C03	H	H	H	H	H	H	H	H	H	H	H	H
C04	H		H	H	S	S	H	S		H	H	S
C05	H	H	H	H	H	H	S	H	S	H		H

H: Highly Supportive

S: Supportive

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence		co wise internal average	External Exam		co wise external average	co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level		
CO1	85.4	3.0			100.0	3.0	100.0	3.0	100.0	3.0	60.4	0.0	2.4	52.1	0.0	0.0	1.0
CO2	85.4	3.0			100.0	3.0			100.0	3.0	60.4	0.0	2.3	52.1	0.0	0.0	0.9
CO3	85.4	3.0	93.8	3.0	100.0	3.0			100.0	3.0	60.4	0.0	2.4	52.1	0.0	0.0	1.0
CO4			93.8	3.0	100.0	3.0			100.0	3.0	60.4	0.0	2.3	52.1	0.0	0.0	0.9
CO5			93.8	3.0	100.0	3.0			100.0	3.0	60.4	0.0	2.3	52.1	0.0	0.0	0.9

AVERAGE	AVERAGE
0	0.924

	CO1	CO2	CO3	CO4	CO5
Obtained	1.0	0.9	1.0	0.9	0.9
Maximum	3	3	3	3	3

OUTCOME	PO1		PO2		PO3		PO4		PO5		PO6		PO7		PO8	
CO1	H	0.96	H	0.96	H	0.96					H	0.96			H	0.96
CO2	H	0.9	H	0.9	H	0.9	H	0.9					H	0.9		
CO3	H	0.96	H	0.96	H	0.96	H	0.96	H	0.96	H	0.96	H	0.96	H	0.96
CO4	H	0.9			H	0.9	H	0.9					H	0.9		
CO5	H	0.9	H	0.9	H	0.9	H	0.9	H	0.9	H	0.9			H	0.9
AVERAGE OF COS FOR POS	0.924		0.93		0.924		0.915		0.93		0.94		0.92		0.94	
AVERAGE OF POS		0.9168		0.9225		0.9168		0.915		0.93		0.933333		0.92		0.933333
AVERAGE	0.923470833															