

PO Attainment

Faculty Name: Dr. Manish Pant Class-Sem: BSC-5 Academic Year: 2022-23
 Course Name: Analysis Course Code: BHM-502 Program Name: BSC II

CO-PO MAPPING:

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

CO ATTAINMENT:

Dr. Manish Pant	Att. Level
CO1	2.43
CO2	2.43
CO3	2.60
CO4	2.60
CO5	2.64
CO6	2.60

PO ATTAINMENT :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Overall PO Attainment	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.6	3.0

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Sl. 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 (20)	Theory (30)	Theory (10)	Theory (10)	Theory (10)	Theory (10)	Theory (20)	Theory (10)	Unit Test(UT)	Attendance(AT)	Teacher Assessment(TA)	Theory (30)	Theory (70)	Theory (100)				
1	BEM2020005	RAVI SAXENA	25	20	8	7	25	8	10	10	5	25	62	87						
2	BEM2020006	DEEPAK GANGWAR	30	24	8	7	30	8	12	11	5	28	30	58						
3	BEM2020007	PREMA RAWAT	21	18	7	5	23	7	9	9	4	22	28	50						
4	BEM2020008	VANSHIKA GOUL	25	20	7	5	25	7	10	10	4	24	34	58						
5	BEM2020009	SANGAM GUPTA	23	18	7	5	23	7	9	8	4	21	43	64						
6	BEM2020011	AYUSHI	23	18	7	5	23	7	9	8	4	21	42	63						
7	BEM2020013	MD TAHSEEN REZA	13	10	3	3	13	3	5	5	2	12	70	82						
8	BEM2020014	MAHIMA	28	22	8	7	28	8	11	11	5	27	53	80						
9	BEM2020016	DEEPENDRA SINGH	13	10	3	3	13	3	5	5	2	12	64	76						
10	BEM2020017	GAURAV KUMAR	20	16	5	4	20	5	8	7	3	18	42	60						
11	BEM2020018	MRIDUL SINGH	23	18	7	5	23	7	9	9	4	22	44	66						
12	BEM2020020	MOHIL SINGH	13	10	3	3	13	3	5	5	2	12	38	50						
13	BEM2020005	ANURADHA SINGH	30	24	8	7	30	8	12	11	5	28	51	79						
14	BEM2020006	ANSHIKA GANGWAR	23	18	7	5	23	7	9	8	4	21	43	64						
15	BEM2020007	ADARSH MAURYA	25	20	8	7	25	8	10	10	5	25	45	70						
16	BEM2020008	PRINYANKA SINGH	20	16	5	4	20	5	8	8	3	19	37	56						
17	BEM2020009	ANSH SAXENA	13	10	3	3	13	3	5	5	2	12	0	12						
18	BEM2020011	AKARSH YADAV	13	10	3	3	13	3	5	5	2	12	3	15						
19	BEM2020013	ABHISHEK SINGHVERMA	25	20	7	5	25	7	10	9	4	23	7	30						
20	BEM2020014	ANSHIKA CHANDRA	13	10	3	3	13	3	5	5	2	12	18	30						
21	BEM2020016	ABHINAV KUMARGUPTA	30	24	8	7	30	8	12	11	5	28	8	36						
Students appeared for the examination			1	1	1	1	1	1	1	1	1	1	1	1	1					
Target - satisfactory mark set as benchmark			12	12	4	4	12	4	5	5	2	12	28	40						
Students scored above the target set			1	1	1	1	1	1	1	1	1	1	0	0						
* Students scored above the target set			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	0%						
Attainment Level			3	3	3	3	3	3	3	3	3	3	1	1						


CO	3				3		3	3	3	3	1	1	Overall
CO1	3				3		3	3		3	1	1	2.43
CO2	3				3		3	3		3	1	1	2.43
CO3	3		3		3		3	3	3	3	1	1	2.60
CO4		3		3	3		3	3	3	3	1	1	2.60
CO5			3	3	3		3	3	3	3	1	1	2.64
CO6			3		3		3	3	3	3	1	1	2.60


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

Overall attainment 2.55

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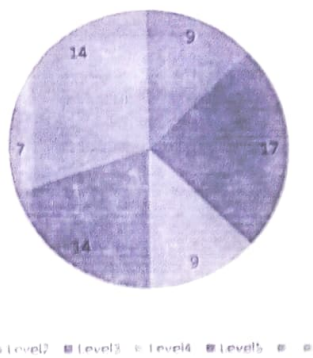
Q.No	Questions	Marks (70)	CO	BL
1-I	The least upper bound of the sequence	01	CO1	L2
1-II	The value of	01	CO2	L1
1-III	The series	01	CO2	L2
1-IV	The series	01	CO3	L3
1-V	How many limit point of this sequence	01	CO2	L1
1-VI	Cauchy general principal criteria of series	01	CO1	L1
1-VII	Rolle's Theorem.	01	CO1	L1
2-I	Intermediate value theorem	01	CO1	L1
2-II	Alternating series.	01	CO1	L1
2-III	Absolute convergent series	01	CO1	L1
2-IV	Write a function which is discontinuous at infinite points.	01	CO1	L2
2-V	Limiting definition of comparison test	01	CO1	L1
2-VI	Write the example as continuous but not differentiable at	01	CO1	L3
2-VII	Range of sequence	01	CO1	L1
3-I	a) Prove that a sequence is Cauchy sequence iff it is a convergent. OR b) Find the limit of sequence	7	CO2	L2
3-II	a) Consider a sequence OR b) Construct Galois group of	7	CO3	L2
4-I	a) Evaluate OR b) State and prove that of Bolzano-Weierstrass theorem	7	CO3	L5
4-II	a) Consider series then find the nature of series for different value of R. OR b) Find number of elements of order 3 and 6 in .	7	CO4	L3
5-I	a) then show that f is continuous but not differentiable at OR b) Discuss the continuity of the following function for every	7	CO5	L4
5-II	a) Prove that if be polynomial and the derivative of P then between any two consecutive zero of , there lie at most one zero of . Or b) both Sylow 3-SSG and Sylow 5-SSG is normal in G.	7	CO6	L6
6-I	a) Draw the graph of the function and discuss the continuity and differentiability of the function in this interval. OR b) Apply Cauchy's integral test to show that	7	CO5	L4
6-II	a) Prove that necessary and sufficient condition for convergent of sequence is that it is bounded and has unique limit point. OR b) Explain Machine learning and how does it work ?	7	CO6	L6

BL – Bloom's Taxonomy Levels

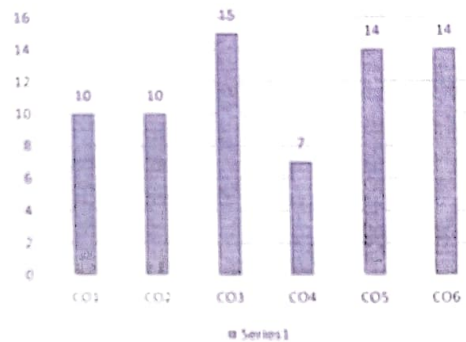
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)
 CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

Level	Marks	CO	Marks
Level1	9	CO1	10
Level2	17	CO2	10
Level3	9	CO3	15
Level4	14	CO4	7
Level5	7	CO5	14
Level6	14	CO6	14
Total	70	Total	70

Bloom's Level wise Marks Distribution



Course Outcome wise Marks Distribution



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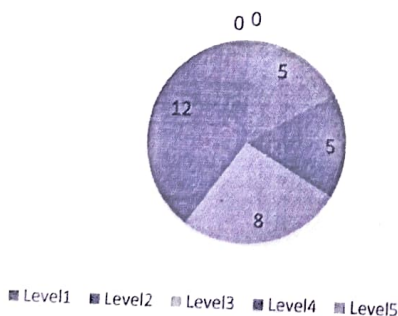
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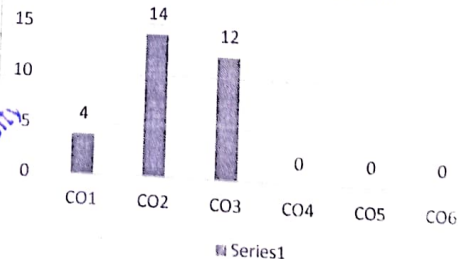
Q.No	Questions	Marks (30)	CO	BL
1-I	Bounded sequence			
1-II	Cauchy sequence	01	CO1	L1
1-III	Convergent sequence	01	CO1	L1
1-IV	Strictly monotonic sequence	01	CO2	L2
1-V	Statement of Cauchy's second theorem of limit	01	CO1	L2
2-I	Write a sequence which has unique limit point but not convergent	01	CO1	L1
2-II	Write all the subsequence of sequence	01	CO2	L2
2-III	Absolute convergent series	01	CO2	L1
2-IV	Cauchy integral test	01	CO2	L2
2-V	Limiting definition of comparison test	01	CO2	L2
3	a) State and prove that of Bolzano-Weierstrass theorem b) Find the limit of sequence c) Find the limit of following	08	CO2	L3
4-A	a) Prove that necessary and sufficient condition for convergent of sequence is that it is bounded and has unique limit point. OR b) Prove that a sequence is Cauchy sequence iff it is a convergent	06	CO3	L4
4-B	a) Prove that sequence OR b) State and prove that Cauchy theorem	06	CO3	L4

Level	Marks	CO	Marks
Level1	5	CO1	4
Level2	5	CO2	14
Level3	8	CO3	12
Level4	12	CO4	0
Level5	0	CO5	0
Level6	0	CO6	0
Total	30	Total	30

Bloom's Level wise Marks Distribution



Course Outcome wise Marks Distribution



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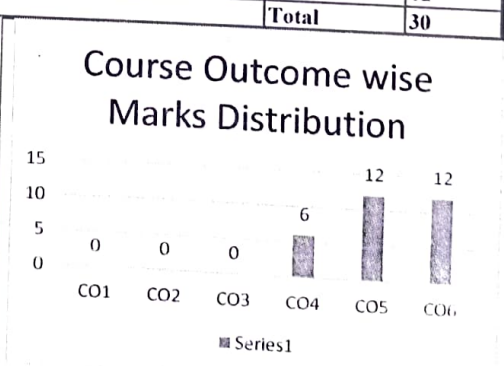
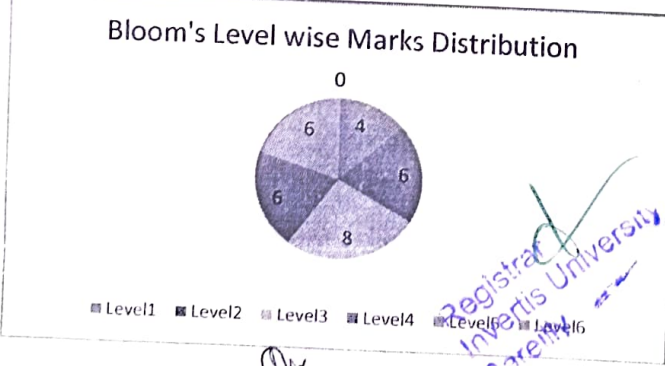
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Q.No	Questions	Marks (30)	CO	BL
1-I	Leibnitz test			
1-II	D'Alembert's ratio test	01	CO4	L1
1-III	Absolute convergent series	01	CO4	L1
1-IV	Cauchy integral test	01	CO4	L2
1-V	Limiting definition of comparison test	01	CO4	L1
2-I	Is it	01	CO4	L1
2-II	a group with respect to usual addition?	01	CO4	L2
2-III	Is symmetric group	01	CO5	L2
2-IV	an abelian group?	01	CO5	L2
2-V	How many conjugate classes in	01	CO5	L2
3	a) Test for convergence the series OR b) Every monotonic and bounded sequence is convergent OR b) State and prove that Cauchy's nth root test.	08	CO5	L3
4-A	a) Examine the convergence of the series OR b) Test for the convergence, absolute and conditional convergence of the series	06	CO6	L4
4-B	a)Apply Cauchy's integral test to show that OR b)Show that the sequence	06	CO6	L5

BL – Bloom's Taxonomy Levels
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)
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Level1	4	CO1	0
Level2	6	CO2	0
Level3	8	CO3	0
Level4	6	CO4	6
Level5	6	CO5	12
Level6	0	CO6	12
Total	30	Total	30



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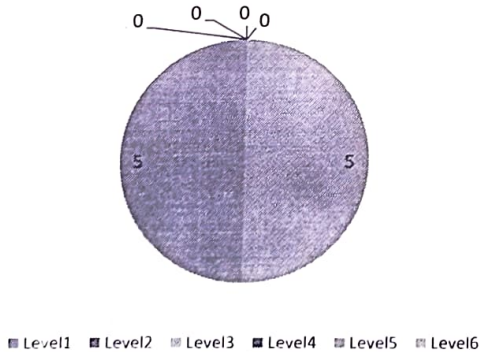
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Q.No	Questions	Marks (10)	CO	BL
1	Every monotonic and bounded sequence is convergent	05	CO3	L2
2	Test for convergence the series	05	CO5	L1

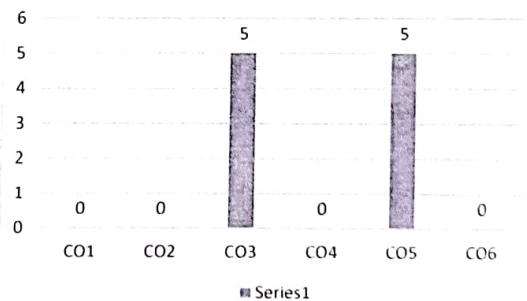
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Level	Marks	CO	Marks
Level1	5	CO1	0
Level2	5	CO2	0
Level3	0	CO3	5
Level4	0	CO4	0
Level5	0	CO5	5
Level6	0	CO6	0
Total	10	Total	10

Bloom's Level wise Marks Distribution



Course Outcome wise Marks Distribution



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Q.No	Questions	Marks (10)	CO	BL
1	Prove that a sequence is Cauchy sequence iff it is a convergent	05	CO4	L1
2	State and prove that of Bolzano-Weierstrass theorem	05	CO6	L2

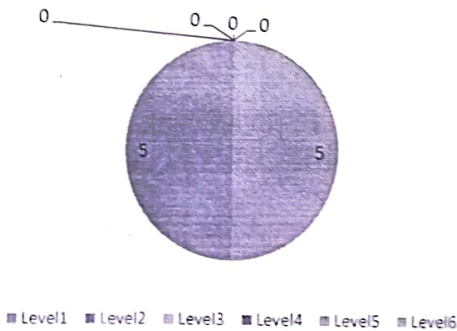
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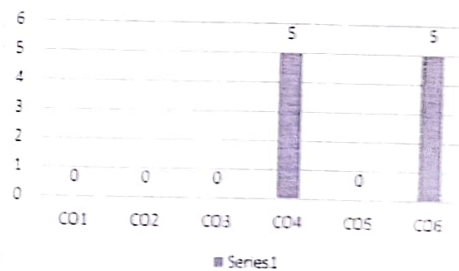
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

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

Bloom's Level wise Marks Distribution



Course Outcome wise Marks Distribution



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PROGRAM BACHELOR OF SCIENCE HONOURS (MATHEMATICS)
SEMESTER FIFTH
SESSION 2022-23
COLLEGE Faculty of Sciences

Sl. No.	Enrollment No.	Roll No.	Student ID	Student Name	BHM501			BHM502			BHM503			BHM504			BHM505			BHM551			Grand Total	Credit Secured	SCPA	CPI	Remarks							
					Max	Min	CR	Max	Min	CR	Max	Min	CR	Max	Min	CR	Max	Min	CR	Max	Min	CR												
1	204201	2010807003	BPM2020003	RAVI SAKENA	58	26	34	4	62	25	87	1	64	29	93	4	56	28	81	1	57	29	36	1	25	14	10	2	125	22	0.00	52.53	Pass	
2	204202	2010807004	BPM2020006	DEEPA GANGWAR	28	21	49	4	30	28	58	1	12	23	65	1	28	21	52	1	36	25	61	1	22	14	26	2	136	22	0.00	51.43	Pass	
3	204203	2010807005	BPM2020007	PREMA RAWAT	52	21	73	4	28	22	50	4	38	22	80	1	30	22	61	4	34	22	56	1	22	14	26	2	131	22	0.00	56.54	Pass	
4	204204	2010807006	BPM2020008	VANSHIKA GOEL	29	24	53	4	34	24	58	1	19	30	79	1	28	30	58	4	64	30	94	1	15	14	49	2	172	22	0.00	53.35	Pass	
5	204205	2010807007	BPM2020009	SANGAM GUPTA	36	19	55	4	42	21	83	1	12	21	66	1	33	26	59	4	59	24	83	1	30	15	45	2	105	22	0.00	59.18	Pass	
6	204206	2010807008	BPM2020011	NYUSHI	47	22	69	4	42	21	83	1	14	29	73	4	34	27	61	4	61	29	90	1	14	15	49	2	105	22	0.00	59.09	Pass	
7	204209	2010807011	BPM2020013	MIDFAHSEEN REZA	47	22	69	4	42	21	83	1	14	29	73	4	34	27	61	4	61	29	90	1	14	15	49	2	105	22	0.00	59.09	Pass	
8	204210	2010807012	BPM2020014	MADHINA	45	25	70	4	53	27	80	1	54	27	81	4	42	25	67	4	65	27	92	1	23	14	33	2	144	22	0.00	57.27	Pass	
9	204212	2010807014	BPM2020016	DEEPA SINGH	46	12	58	4	42	18	60	4	62	20	82	4	34	23	57	4	47	19	66	1	27	14	41	2	179	22	0.00	55	Pass	
10	204213	2010807015	BPM2020017	GALURAY KUMAR	51	19	70	4	42	18	60	4	62	20	82	4	34	23	57	4	43	25	68	1	27	14	41	2	148	22	0.00	59.09	Pass	
11	204214	2010807016	BPM2020018	MRIDUL SINGH	55	12	67	4	44	22	66	4	56	12	68	4	29	12	41	4	42	18	60	1	31	15	46	2	105	22	0.00	51.91	Pass	
12	204215	2010807018	BPM2020020	MOHIL SINGH	55	12	67	4	38	12	50	4	40	12	52	4	35	12	47	4	28	22	50	4	25	14	39	2	105	22	0.00	53.36	Pass	
13	204218	2010807020	BPM2020022	ANURADHA SINGH	64	26	90	4	51	28	79	4	62	30	92	4	62	29	91	4	65	28	93	4	34	15	49	2	169	22	0.00	52.54	Pass	
14	204219	2010807021	BPM2020023	VANSHIKA DANGWAR	51	15	66	4	43	21	64	4	37	18	55	4	41	20	61	4	50	24	74	1	34	15	49	2	168	22	0.00	59.45	Pass	
15	204221	2010807022	BPM2020025	ADARSH MAURYA	58	19	77	4	45	25	70	4	59	27	86	4	49	23	72	4	49	23	72	4	33	15	48	2	168	22	0.00	52.91	Pass	
16	204222	2010807024	SERAJUDDIN	PHUJAN SINGH	42	20	62	4	37	19	56	4	59	22	81	4	28	17	45	4	56	23	79	4	31	15	46	2	141	18	0.00	51.91	Pass	
17	204229	2010807001	BPM2020002	VANSH SAKENA	63	12	75	4	47	12	52	4	57	12	69	4	43	12	55	4	62	23	85	1	30	15	45	2	135	0	0.00	51.91	Pass	
18	204231	2010807013	BPM2020015	AKASH YADAV	12	12	24	0	3	12	24	0	14	12	24	0	10	12	24	0	21	12	24	0	0	0	0	0	0	0	0	0.00	51.91	Pass
19	204235	2010807017	BPM2020019	ABHISHEK SINGH	40	19	59	4	7	23	30	0	30	19	49	4	29	20	49	4	23	24	47	4	33	14	17	2	281	18	0.00	51.91	Pass	
20	204237	2010807019	BPM2020021	VANSHIKA CHANDIA	32	14	46	4	18	12	30	0	55	19	74	4	18	15	33	0	49	24	73	4	34	15	49	2	105	14	0.00	51.91	Pass	
21	204239	2010807022	BPM2020024	ABHINAV KUMAR	41	22	63	4	5	28	36	0	51	28	79	4	33	21	51	4	32	30	62	1	27	14	11	2	115	18	0.00	51.91	Pass	

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Controller of Examination
Passing marks - 40% in each course

Registrar

Vice Chancellor

Legend:
E - External Marks
I - Internal Marks
T - Total Marks
Date: Feb 13, 2023
* Passed with Grace Marks
* Credit

BHM501 ALGEBRA - I
BHM501 NUMBER THEORY
BHM502 ANALYSIS - I
BHM505 FUNDAMENTALS & PHYSICAL ASPECTS OF

BHM503 OPERATION RESEARCH
BHM551 PROGRAMMING LAB

Dr. Divyanshu