

PO Attainment

Faculty Name: Dr. Sudha Tomar Class-Sem: BSC-5 Academic Year: 2022-23
 Course Name: Organic Chemistry-IV Course Code: BHC-502 Program Name: BSC H Chemistry

CO-PO MAPPING:

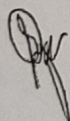
Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	1	1			2	2			1			
CO2	1		3	2			2	3				
CO3		2	1			1	2				3	
CO4				3	1			2	2	2		
CO5	1		3		3						3	2
CO6		1		2		2	2	1	2	3		3

CO ATTAINMENT:

Dr. Sudha Tomar	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



Registrar
Invertis University
Bareilly

Faculty Signature

Head
Department of Applied Science
Invertis University, Bareilly (U.P.)

Dean
Faculty of Science
Invertis University, Bareilly (U.P.)



Invertis University, Bareilly
CO Attainment

Faculty Name: Dr. Sulha Tomar
Course Name: Organic Chemistry-IV

Class/Sem: BSC-5
Course Code: BHC-503

Academic Year: 2022-23
Program Name: BSC II Chemistry

S. No.	University Reg. No.	Student Name	First Unit Test		Second Class Test		Best One From Unit Test		Best One From Class Test		Internal Marks Scheme		Total Internal Marks (30)	Best Exam Exam Marks (20)	Total Marks (100)
			Theory (20)	Practical (10)	Theory (10)	Practical (10)	Theory (10)	Practical (10)	Theory (10)	Practical (10)	Attendance (A7)	Unit Test (U7)			
1	BCT2020002	AKASH GUPTA	25	20	7	5	25	7	10	9	4	4	23	54	77
2	BCT2020003	ISHA MISRRA	15	12	3	3	15	3	6	6	2	2	14	31	45
3	BCT2020004	GAJAN GUPTA	28	22	8	7	28	8	11	10	5	5	26	59	85
4	BCT2020005	SARTHAK TIWARI	30	24	8	7	30	8	12	11	5	5	28	67	95
5	BCT2020006	JYOTE BHOOLA	13	10	3	3	13	3	5	5	2	2	12	43	75
6	BCT2020007	PRIVANSHI SAXENA	15	12	5	4	15	5	6	6	3	3	15	42	57
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	2	12	28	40
Students scored above the target set			1	1	1	1	1	1	1	1	1	1	1	1	1
% Students scored above the target set			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Attainment Level			3	3	3	3	3	3	3	3	3	3	3	3	3

Criteria	Overall attainment	3.00
% Students	3	3.00
<50%	1	3.00
50-75%	2	3.00
>75%	3	3.00

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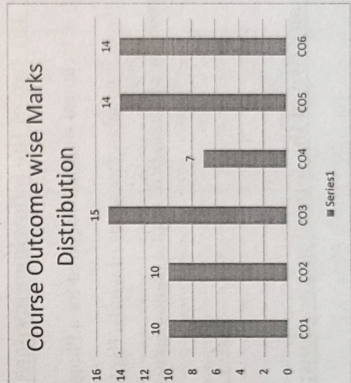
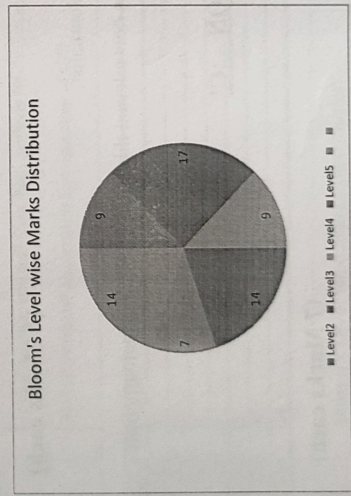


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WOMEN EMPOWERMENT AND CAREER DEVELOPMENT

Q.No	Questions	Marks (70)	CO	BL
1-I	Ascorbic acid is the scientific name of which vitamin.	01	CO1	L2
1-II	Draw the ring structure of fructose.	01	CO2	L1
1-III	Give the structure of cytosine.	01	CO2	L2
1-IV	Define nucleic acid.	01	CO3	L3
1-V	State iodine number.	01	CO2	L1
1-VI	Define Zwitterion.	01	CO1	L1
1-VII	What is acid value.	01	CO1	L1
2-I	A Metal present in vitamin B ₁₂ (Cobalamin) is?	01	CO1	L1
2-II	What is amino acid?	01	CO1	L1
2-III	Define oil and fats.	01	CO1	L1
2-IV	Name the two bases present in nucleic acid.	01	CO1	L2
2-V	What is epimers?	01	CO1	L1
2-VI	What is saponification value?	01	CO1	L3
2-VII	Draw structure of Isoprene unit.	01	CO1	L1
3-1	a) Define glucose. Give its preparation. Also discuss its reaction with hydroxyl amine, hydrazine, and acetyl chloride OR b) What are lipids? Classified common fatty acid present in oil and fats. Also explain briefly hydrogenation of fats.	7	CO2	L2
3-II	a) What is nucleic acid? Give the structure and function of DNA and RNA. Explain its difference also OR b) Define terpenes. Also explain occurrence, classification and Isoprene unit.	7	CO3	L2
4-1	a) What is polypeptides? Give method of peptide synthesis by solution and solid phase OR b) Define vitamins along with examples also explain structure of vitamin A, D, E and K	7	CO3	L5
4-II	a) Using L-S coupling scheme find out all the spectroscopy terms of p2 electrons OR b) Explain occurrence, classification, and biological importance of carbohydrates.	7	CO4	L3
5-1	a) What are disaccharides. Also elucidate structure of maltose, lactose, and sucrose OR b) What is Raman Effect? Explain how Stokes and anti-Stokes line appear in Raman spectrum. Describe the rotational and vibrational Raman spectrum? Write down the expression of wave number and selection rule in each case	7	CO5	L4

5-II	a) Following the L-S coupling scheme, calculate all the spectroscopic terms for the atomic state (i) 4p14d1(ii) 3p14p1 and present it in the discrete energy levels. Or b) both S _{ylow} 3-SSG and S _{ylow} 5-SSG is normal in G.	7	CO6	L6
6-I	a) Define polysaccharides. Also explain the structure of starch, cellulose and glycogen OR b) Apply Cauchy's integral test to show that	7	CO5	L4
6-II	a) Show that for rigid-rotator the wave number for transition from the level J to the level J+1 is given by ν , where B is rotational constant and prove that the wave number between any two rotational energy levels is 2B. OR b) Describe water soluble vitamins. Give its structure and deficiency order	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



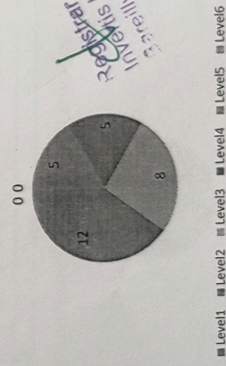
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 Department of Applied Science
 Invertis University, Bareilly (U.P.)

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Dean
 Faculty of Science
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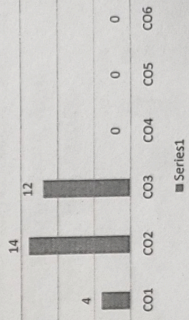
Q.No	Questions	Marks (30)	CO	BL
1-I	Give the structure of thymine.	01	CO1	L1
1-II	Define nucleic acid	01	CO1	L1
1-III	State iodine number	01	CO2	L2
1-IV	Define oils and fats	01	CO1	L2
1-V	What are proteins?	01	CO1	L1
2-I	Give the structure of thymine.	01	CO2	L2
2-II	Define nucleic acid	01	CO2	L1
2-III	State iodine number	01	CO2	L2
2-IV	Define oils and fats	01	CO2	L2
2-V	What are proteins?	01	CO2	L1
3	a) Draw structure of vitamin B12 (Cobalamine) OR b) Classified vitamins OR c) Draw the structure of A denine, Guanine, cytosine, uracil.	08	CO2	L3
4-A	a) Defines nucleosides and nucleotides OR b) Draw the structure of Vitamin A and D.	06	CO3	L4
4-B	a) What are polypeptides? Give three methods for the preparation of polypeptides. OR b) What are lipids? also explain hydrogenation of fats?	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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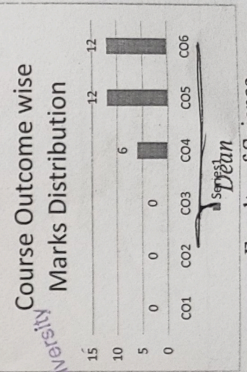
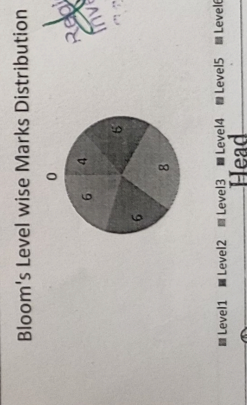
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Q.No	Questions	Marks (30)	CO	BL
1-I	Give the structure of thymine.	01	CO4	L1
1-II	Define nucleic acid	01	CO4	L1
1-III	State iodine number	01	CO4	L2
1-IV	Define oils and fats	01	CO4	L1
1-V	What are proteins?	01	CO4	L1
2-I	Give the structure of thymine.	01	CO4	L2
2-II	Define nucleic acid	01	CO5	L2
2-III	State iodine number	01	CO5	L2
2-IV	Define oils and fats	01	CO5	L2
2-V	What are proteins?	01	CO5	L2
3	a) Draw structure of vitamin B12 (Cobalamin) OR b) Classified vitamins OR c) Draw the structure of Adenine, Guanine, cytosine, uracil.	08	CO5	L3
4-A	a) Defines nucleosides and nucleotides OR b) Draw the structure of Vitamin A and D.	06	CO6	L4
4-B	a) What are polypeptides? Give three methods for the preparation of polypeptides. OR b) What are lipids? also explain hydrogenation of fats?	06	CO6	L5

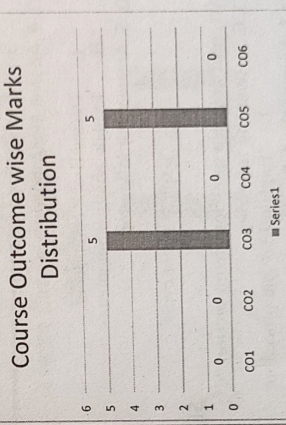
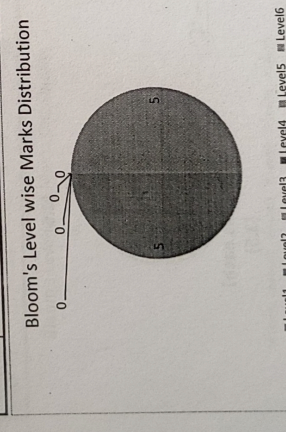
BL – Bloom's Taxonomy Levels
(1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)
CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

	CO1	CO2	CO3	CO4	CO5	CO6	Total
Level1	4	0	0	0	0	0	4
Level2	6	0	0	0	0	0	6
Level3	8	0	0	0	0	0	8
Level4	6	0	0	0	0	0	6
Level5	6	0	0	0	0	0	6
Level6	0	0	0	0	0	0	0
Total	30	0	0	0	0	0	30



Q.No	Questions	Marks (10)	CO	BL
1	Explain occurrence, classification, and biological importance of carbohydrates.	05	CO3	L2
2	Define terpenes. Also explain occurrence, classification and Isoprene unit.	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	CO	Marks
Level1	CO1	0
Level2	CO2	0
Level3	CO3	5
Level4	CO4	0
Level5	CO5	5
Level6	CO6	0
Total	Total	10



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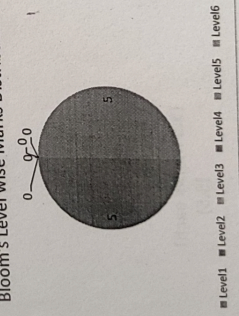


Q.No	Questions	Marks (10)	CO	BL
1	Explain 1°, 2°, 3° structure of protein	05	CO4	L1
2	Explain occurrence, classification of amino acid	05	CO6	L2

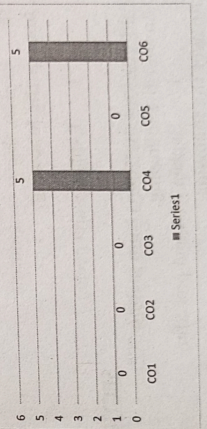
BL – Bloom's Taxonomy Levels
 (1- Remembering, 2- Understanding, 3 – Applying, 4 – Analysing, 5 – Evaluating, 6 - Creating)
 CO – Course Outcomes PO – Program Outcomes; PI Code – Performance Indicator Code

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

Bloom's Level wise Marks Distribution



Course Outcome wise Marks Distribution



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INVERTIS UNIVERSITY
Bareilly-Lachhrow National Highway, Bareilly - 241223 (U.P.)
Tuition Fee Sheet



PROGRAM : BACHELOR OF SCIENCE HONOURS (CHEMISTRY)
SEMESTER : FIFTH
SESSION : 2022-23
COLLEGE : Faculty of Science

Sl. No.	Enrollment No.	Roll No.	Student Name	BSCCH1		BSCCH2		BSCCH3		BSCCH4		BSCCH5		Grand Total	Credits Awarded	BTPA, CPT	Remarks
				CR	Max Marks	CR	Max Marks	CR	Max Marks	CR	Max Marks	CR	Max Marks				
1	2019000001	2019000001	ADARSH GUPTA	1	100	1	100	1	100	1	100	1	100	4	200	20	
2	2019000002	2019000002	ANUSHKA GUPTA	1	100	1	100	1	100	1	100	1	100	4	200	20	
3	2019000003	2019000003	ANUSHA GUPTA	1	100	1	100	1	100	1	100	1	100	4	200	20	
4	2019000004	2019000004	ANUSHA GUPTA	1	100	1	100	1	100	1	100	1	100	4	200	20	
5	2019000005	2019000005	ANUSHA GUPTA	1	100	1	100	1	100	1	100	1	100	4	200	20	
6	2019000006	2019000006	ANUSHA GUPTA	1	100	1	100	1	100	1	100	1	100	4	200	20	
7	2019000007	2019000007	ANUSHA GUPTA	1	100	1	100	1	100	1	100	1	100	4	200	20	
8	2019000008	2019000008	ANUSHA GUPTA	1	100	1	100	1	100	1	100	1	100	4	200	20	
9	2019000009	2019000009	ANUSHA GUPTA	1	100	1	100	1	100	1	100	1	100	4	200	20	
10	2019000010	2019000010	ANUSHA GUPTA	1	100	1	100	1	100	1	100	1	100	4	200	20	

Vice Chancellor

Registrar

Controller of Examinations

... 75% of the above marks are not calculated.
Failing marks - 40% in each course

Legend:
CR - Credit
T - Total Marks
M - Marks
P - Pass
F - Fail
C - Canceled
D - Discontinued

BSCCH1: PHYSICAL CHEMISTRY-I
BSCCH2: PHYSICAL CHEMISTRY-II
BSCCH3: INORGANIC CHEMISTRY
BSCCH4: ORGANIC CHEMISTRY
BSCCH5: INORGANIC & ENVIRONMENTAL CHEMISTRY

BSCCH1: PHYSICAL CHEMISTRY-I
BSCCH2: PHYSICAL CHEMISTRY-II
BSCCH3: INORGANIC CHEMISTRY
BSCCH4: ORGANIC CHEMISTRY
BSCCH5: INORGANIC & ENVIRONMENTAL CHEMISTRY

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BSCCH4: ORGANIC CHEMISTRY
BSCCH5: INORGANIC & ENVIRONMENTAL CHEMISTRY

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