



# Invertis University, Bareilly

## PO Attainment

Faculty Name: **Kuldeep Kumar Soni**

Class-Sem: **B.Tech. CE VI**

Academic Year: **2022-23**

Course Name: **Construction Engineering & Management**

Course Code: **BCE601**

Program Name: **B.Tech. CE**

### CO-PO MAPPING:

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

### CO ATTAINMENT:

Kuldeep Kumar Soni	Att. Level
CO1	3.00
CO2	3.00
CO3	3.00
CO4	2.80
CO5	2.80
CO6	2.86

### PO ATTAINMENT :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
Overall PO Attainment	2.9	3.0	2.8	2.9	2.9	3.0	2.9	2.8	2.9

Faculty Signature

**Head**  
Department of Civil Engineering  
Invertis University  
Bareilly-243123, UP

**Dean**  
Faculty of Engineering & Technology  
Invertis University  
Bareilly-243123, UP

Registrar  
Invertis University  
Bareilly

Faculty Name: **Kuldeep Kumar Soni**

Class/Sem: **B.Tech. CE VI**

Academic Year: **2022-23**

Course Name: **Construction Engineering & Management**

Course Code: **BCE601**

Program Name: **B.Tech. CE**

S. No.	University Reg. No.	Student Name	Internal Marks Scheme										Total Internal Marks	End Sem Exam Marks	Total Mark
			Theory (25)	Theory (25)	Theory (10)	Theory (10)	Theory (25)	Theory (10)	Unit Test (10)	Attendance (7)	Teacher Assessment (TA)	Theory (25)			
1	BCI2020002	SAURABH GANGWAR	20	16	8	6	20	8	8	8	4	20	49	69	
2	BCI2020003	SPARSH GUPTA	25	20	8	6	25	8	10	9	4	23	36	59	
3	BCI2020004	ADITYA MEENA	10	8	4	3	10	4	4	4	2	10	34	44	
4	BCI2020005	ABHISHIK PAL	25	20	8	6	25	8	10	9	4	23	41	64	
5	BCI2021002	MAHIN ALI KHAN	10	8	4	3	10	4	4	4	2	10	35	45	
6	BCE2020027	ATI SINGH	10	8	4	3	10	4	4	4	2	10	29	39	
7	LBCI2021005	AVDHESH GANGWAR	25	20	8	6	25	8	10	10	4	24	38	62	
8	LBCI2021003	INDRAJIT	25	20	8	6	25	8	10	9	4	23	34	57	
9	LBCI2021001	NIRDOSH DIXIT	25	20	8	6	25	8	10	9	4	23	44	67	
10	LBCI2021006	SANJEEV PAL	20	16	8	6	20	8	8	8	4	20	36	56	
11	LBCI2021004	VIPIN GANGWAR	25	20	8	6	25	8	10	10	4	24	35	59	
12	LBCI2021002	NITISH KUMAR	10	8	4	3	10	4	4	4	2	10	20	30	
Students appeared for the examination			12	12	4	3	12	4	4	4	2	10	20	30	
Target / satisfactory mark set as benchmark			10	10	4	4	10	4	4	4	2	10	12	12	
Students scored above the target set			12	8	12	8	12	12	12	12	12	12	10	10	
% Students scored above the target set			100%	67%	100%	67%	100%	100%	100%	100%	100%	100%	83%	83%	
Attainment Level			3	2	3	2	3	3	3	3	3	3	3	3	
														Overall	
CO1			3		3		3	3	3	3	3	3	3	3	3.00
CO2			3		3		3	3	3	3	3	3	3	3	3.00
CO3			3				3	3	3	3	3	3	3	3	3.00
CO4				2		2	3	3	3	3	3	3	3	3	2.80
CO5				2		2	3	3	3	3	3	3	3	3	2.80
CO6				2			3	3	3	3	3	3	3	3	2.86

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

Overall attainment
2.91

*[Signature]*  
Faculty Signature

*[Signature]*  
**Head**  
Department of Civil Engineering  
Invertis University  
Bareilly-243123, UP

*[Signature]*  
**Dean**  
Faculty of Engineering & Technology  
Invertis University  
Bareilly 243123, UP

*[Signature]*  
Registrar  
Invertis University  
Bareilly

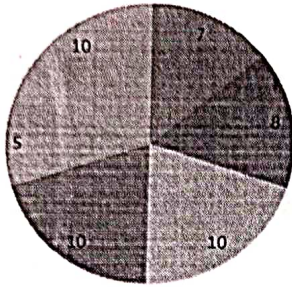
Q.No	Questions	Marks (50)	CO	BL												
	<b>Explain the following:</b>															
1-I	Construction Project	01	CO1	L2												
1-II	Slack	01	CO2	L1												
1-III	Super Critical Activity	01	CO2	L2												
1-IV	Earliest expected time	01	CO1	L1												
1-V	Controlling	01	CO1	L1												
2-I	Interfering float	01	CO2	L1												
2-II	Milestone chart	01	CO1	L1												
2-III	Planning	01	CO2	L1												
2-IV	Critical path	01	CO1	L2												
2-V	Beta distribution	01	CO2	L1												
3-I	<p>(a) The time estimate from two engineers for an activity of a project are as under:</p> <table style="margin-left: 40px;"> <tr> <td></td> <td>to</td> <td>tL</td> <td>tp</td> </tr> <tr> <td>Engineer A</td> <td>3</td> <td>5</td> <td>6</td> </tr> <tr> <td>Engineer B</td> <td>4</td> <td>6</td> <td>9</td> </tr> </table> <p>State who is more certain about the time of completion of the job.</p> <p>OR</p> <p>(b) Explain clearly the difference between an activity and an event.</p>		to	tL	tp	Engineer A	3	5	6	Engineer B	4	6	9	5	CO3	L2
	to	tL	tp													
Engineer A	3	5	6													
Engineer B	4	6	9													
3-II	<p>(ii) (a) Explain cranes. Discuss mobile cranes with neat sketch diagram.</p> <p>OR</p> <p>(b) Describe the various stages in which the contract planning is done.</p>	5	CO3	L3												
4-I	<p>(i) (a) Explain the term EST,EFT,LST and LFT.</p> <p>OR</p> <p>(b) What is site layout? And discuss necessity and factors influencing of site layout in detail.</p>	5	CO2	L5												

4-II	<p>(a) What is DDM? What is the role of DDM in Civil Engineering Project? OR</p> <p>(b) For the given activities determine variance and standard deviation for each activity.</p> <p>Activity to tm tp</p> <p>1-2 6 9 12</p> <p>1-3 3 4 11</p> <p>2-4 2 5 14</p> <p>3-4 4 6 8</p> <p>3-5 1 1.5 5</p> <p>2-6 5 6 7</p> <p>4-6 7 8 15</p> <p>5-6 1 2 3</p>	5	CO4	L3
5	<p>(a) List the various equipment used for excavation of earth and earth moving equipment. What are the different methods of dewatering? And also explain any one of them. OR</p> <p>(b) The network for a certain building project is shown in figure -1 below. Determine the expected time for each path. Which path is critical?</p>	10	CO5	L4
6	<p>a) (i) What is contract? What are the essential qualifications of a contractor? (ii) Explain the item rate contract, lump sum contract and scheduled contract. OR</p> <p>(b) (i) What is work breakdown structure? What is the importance in network planning? (ii) Describe the CPM process.</p>	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

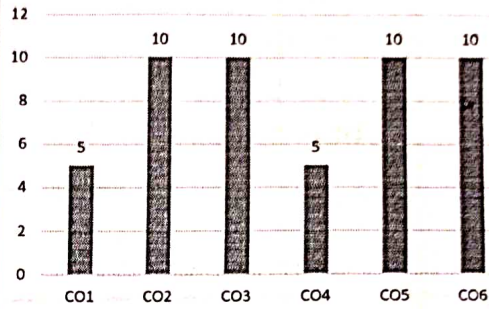
Level	Marks	CO	Marks
Level1	7	CO1	5
Level2	8	CO2	10
Level3	10	CO3	10
Level4	10	CO4	5
Level5	5	CO5	10
Level6	10	CO6	10
<b>Total</b>	<b>50</b>	<b>Total</b>	<b>50</b>

**Bloom's Level wise Marks Distribution**



■ Level2 ■ Level3 ■ Level4 ■ Level5 ■

**Course Outcome wise Marks Distribution**



■ Series1

*Head*

*[Signature]*

**Head**  
 Department of Civil Engineering  
 Invertis University  
 Bareilly-243123, UP

*[Signature]*

Registrar  
 Invertis University  
 Bareilly

**Dean**  
 Faculty of Engineering & Technology  
 Invertis University

**First Unit Test 2022-23**  
**Construction Engineering & Management (BCE-601)**

**B.Tech. CE- Vsem**

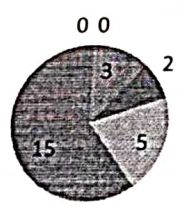
**Maximum Marks :25; Duration: 90 Minutes**

Q.No	Questions	Marks (30)	CO	BL
	<b>Attempt All questions.</b>			
1-I	What is construction project?	01	CO1	L1
1-II	Define Slack	01	CO1	L1
1-III	Define super critical activity.	01	CO1	L1
1-IV	What is earliest expected time?	01	CO1	L2
1-V	Define controlling.	01	CO1	L2
2	(a) Describe the CPM process. OR (b) Explain clearly the difference between an activity and an event.	05	CO2	L3
3	(a)What do you understand by critical path? How is it determined? OR (b) What is work breakdown structure? What is the importance in network planning?	05	CO2	L4
4	(a). Describe the various stages in which the contract planning is done. OR (b). Determine the expected time for each path. Which path is critical?	10	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

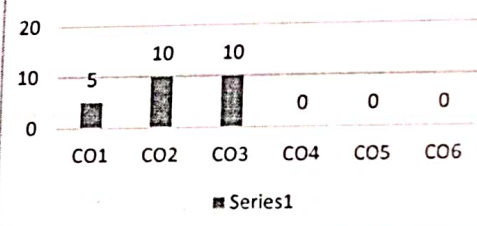
Level	Marks	CO	Marks
Level1	3	CO1	5
Level2	2	CO2	10
Level3	5	CO3	10
Level4	15	CO4	0
Level5	0	CO5	0
Level6	0	CO6	0
<b>Total</b>	<b>25</b>	<b>Total</b>	<b>25</b>

**Bloom's Level wise Marks Distribution**



■ Level1 ■ Level2 ■ Level3 ■ Level4 ■ Level5 ■ Level6

**Course Outcome wise Marks Distribution**



*[Handwritten signature]*

*[Handwritten signature]*

**Head**  
 Department of Civil Engineering  
 Invertis University  
 Bareilly-243123, UP

*[Handwritten signature]*

**Dean**  
 Faculty of Engineering & Technology  
 Invertis University  
 Bareilly

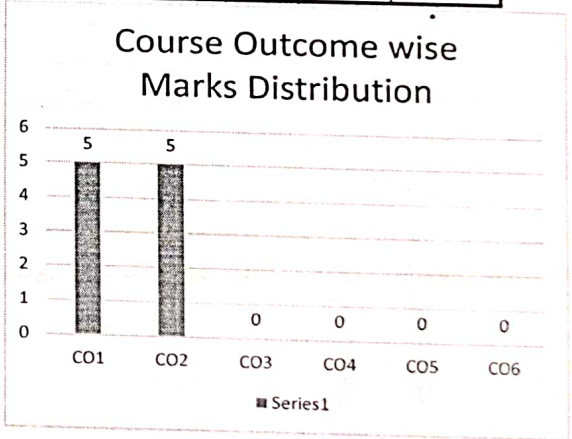
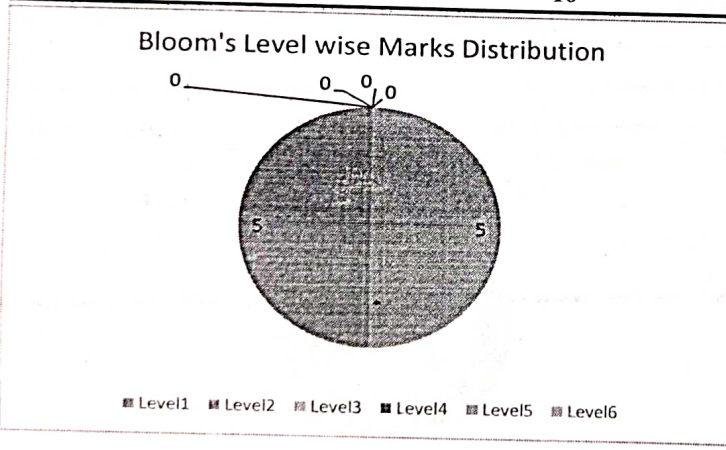
Registrar  
 Invertis University  
 Bareilly

**First Class Test 2022-23**  
**Construction Engineering & Management (BCE-601)**  
**Maximum Marks :10; Duration: 30 Minutes**

Q.No	Questions	Marks (10)	CO	BL
1	Describe the CPM process.Explain clearly the difference between an activity and an event.	05	CO1	L2
2	Describe the various stages in which the contract planning is done.	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	5	CO2	5
Level3	0	CO3	0
Level4	0	CO4	0
Level5	0	CO5	0
Level6	0	CO6	0
<b>Total</b>	<b>10</b>	<b>Total</b>	<b>10</b>



*[Handwritten Signature]*

**Head**  
**Department of Civil Engineering**  
**Invertis University**  
**Bareilly-243123, UP**

*[Handwritten Signature]*  
**Registrar**  
**Invertis University**  
**Bareilly**  
**Faculty of Engineering & Technology**

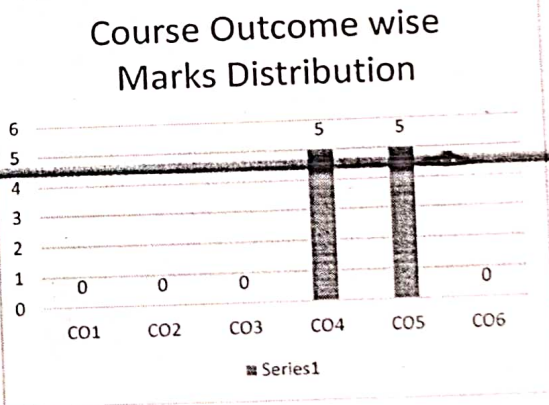
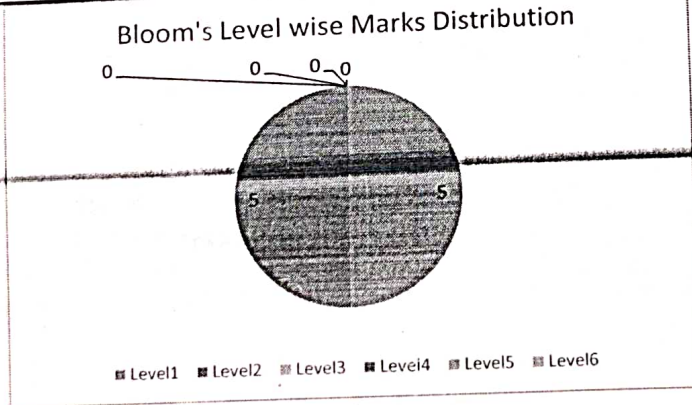


**Second Class Test 2022-23**  
**Construction Engineering & Management (BCE-601)**  
**Maximum Marks :10; Duration: 30 Minutes**

Q.No	Questions	Marks (10)	CO	BL
1	What is work breakdown structure? What is the importance in network planning?	05	CO4	L2
2	What are the various operation involved in concrete construction?	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
<b>Total</b>	<b>10</b>	<b>Total</b>	<b>10</b>



Head  
Department of Civil Engineering  
Invertis University  
Bareilly-243123, UP

Dean  
Faculty of Engineering & Technology  
Invertis University

Registrar  
Invertis University  
Bareilly