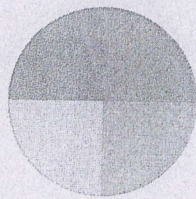


CO- Course Outcomes,	KL- Knowledge Level,	PO – Program Outcome
CO1	Understanding the impact of humans on environment and environment on humans.	
CO2	Be conversant with implementation of basic environmental legislation.	
CO3	Examine the effect of the pollutants on the environment: atmosphere, water and soil.	
CO4	Select the most appropriate technique for the treatment of water.	
CO5	Develop strategies to control, reduce and monitor pollution.	

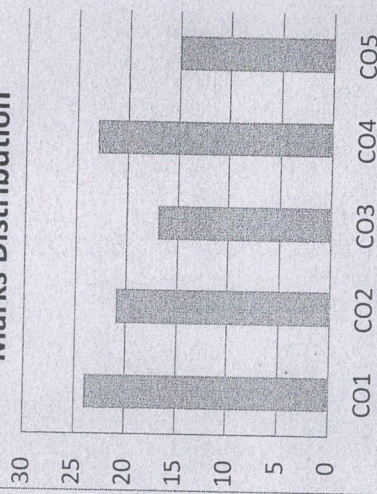
GRAFICAL REPRESENTATION

Bloom's Level wise Marks Distribution



■ K1 ■ K2 ■ K3 ■ K4 ■ K5 ■ K6

Course Outcome Wise Marks Distribution



Branch: **Civil Engineering**

Subject Name: **Environmental Engineering - I**

Program: **B.Tech**

Semester: **V**

Year: **2022/Odd**

- Start writing from 2nd page onwards; don't write on the 1st Page Backside
- Answer all Questions of Section A (Compulsory)
- Answer Any Four out of Six of Section B
- Answer Any Three out of Five of Section C
- Possession of Mobile Phones or any kind of Written Material, Arguments with the Invigilator or Discussing with Co-Student will come under Unfair Means and will result in the Cancellation of the Papers.

Time: 3 Hour
Max. Marks : 70

Knowledge Level (KL)

K1 : Remembering

K3 : Applying

K5 : Evaluating

K2 : Understanding

K4 : Analysing

K6 : Creating

END TERM EXAMINATION
School of Engineering & IT

Section A (Each question Carry 02 Marks from Q1-i to Q1-xx) – 20 Marks

Q. N1	QUESTIONS	Marks	COs	KL	PO
i	Define a 'Service Connection'.	2	CO2	K1	PO2, PO6, PO7
ii	List the factors affecting per capita demand.	2	CO2	K1	PO2, PO6, PO7
iii	What is the average quantity of water (in lpcd) required for domestic purposes according to IS codes.	2	CO2	K1	PO2, PO6, PO7
iv	Name the tests undertaken to judge the Biological characteristics of water.	2	CO1	K1	PO2, PO6, PO7
v	Name the valves that are used to discharge air from water pipelines.	2	CO3	K1	PO2, PO6, PO7
vi	Define Aerosols.	2	CO4	K1	PO2, PO6, PO7
vii	Define Secondary Air Pollutant.	2	CO4	K1	PO2, PO6, PO7
viii	Identify the different sources of Noise.	2	CO5	K1	PO2, PO6, PO7
x	Define 'Noise'.	2	CO5	K1	PO2, PO6, PO7

Section B (Answer any FOUR out of SIX) – 20 Marks (Each question 5 Marks)					
No.	QUESTIONS	Marks	COs	KL	PO
1	State the Municipal Water Quality Parameters.	5	CO1	K2	PO2, PO6, PO7
2	Write in brief about the following methods of water distribution:- a. Gravitational System b. Pumping System c. Combined Gravity and Pumping System	5	CO2	K4	PO2, PO6, PO7
3	Write a short note on the different water treatment processes in a water treatment plant.	5	CO3	K3	PO2, PO6, PO7
4	State the prescribed maximum annual average concentration of TSPM and RSPM for residential areas in India as per the old National Ambient Air Quality Standards.	5	CO4	K4	PO2, PO6, PO7
5	State some measures used for Noise Control and Prevention.	5	CO5	K3	PO2, PO6, PO7
6	Classify Sound and write a short note on each.	5	CO5	K4	PO2, PO6, PO7
Section C (Answer any THREE out of FIVE) – 30 Marks- (Each question Carry 10 Marks)					
No.	QUESTIONS	Marks	COs	KL	PO
1	Write in brief about the different water distribution networks.	10	CO3	K2	PO2, PO6, PO7
2	Mention some of the approaches by which Noise control can be achieved.	10	CO5	K3	PO2, PO6, PO7
3	Differentiate between Dust, Smoke and Fumes giving proper examples.	10	CO4	K3	PO2, PO6, PO7
4	Mention in brief about the characteristics which are used to describe water quality.	10	CO2	K3	PO2, PO6, PO7
5	The WHO has laid down certain standards for potable water. Based on which, the BIS has laid down its water quality standards, according to which surface water has been classified into different categories. Elaborate these.	10	CO1	K4	PO2, PO6, PO7
6	Write in brief about the following tests undertaken to judge the Biological characteristics of water:- a. Coliform Index Test	10	CO1	K2	PO2, PO6, PO7

Branch	Civil Engineering		
Subject Name	Disaster preparedness and planning.		
	Program	B.Tech	
	Semester	5th	
	Year	2022/Odd	
Time: 3 Hour	● Start writing from 2nd page onwards; don't write on the 1st Page Backside		
Max. Marks : 70	● Answer all Questions of Section A (Compulsory)		
	● Answer Any Four out of Six of Section B		
	● Answer Any Three out of Five of Section C		
	● Possession of Mobile Phones or any kind of Written Material, Arguments with the Invigilator or Discussing with Co-Student will come under Unfair Means and will result in the Cancellation of the Papers.		
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating
	K2 : Understanding	K4 : Analysing	K6 : Creating

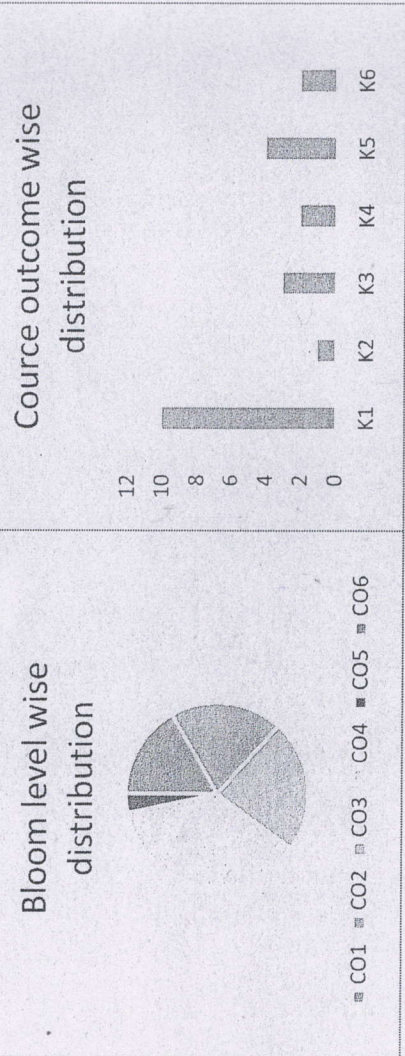
Section A (Each question Carry 02 Marks from Q1-i to Q1-x) - 20 Marks

Q.N1	QUESTIONS	Marks	COs	KL	PO
i	What do you understand by Disaster.	2	CO1	K1	PO2
ii	Define hazard.	2	CO2	K1	PO12
iii	Define pollution and suggest some major to reduce pollution.	2	CO3	K1	PO12
iv	Discuss natural disaster and artificial disaster.	2	CO1	K1	PO12
v	Explain flood its reasons	2	CO2	K1	PO12
vi	Discuss some suggestion for reducing artificial flood.	2	CO3	K1	PO12
vii	Define earthquake and its reason.	2	CO4	K1	PO12
viii	What are manmade disaster.	2	CO2	K1	PO12
ix	Explain drought and its cause.	2	CO3	K1	PO12
x	Explain hazard and its causes	2	CO2	K1	PO12

CO- Course Outcomes, **KL-** Knowledge Level, **PO** - Program Outcome

Course Outcomes	CO1	Upon completion of this course, students will be able to understand the different conventional and unconventional manufacturing methods employed for making different products.
	CO2	Upon completion of this course, the students will have an overview of the mechanical behavior and application of tools used in machining purpose.
	CO3	Upon completion of this course, the students will be able to examine the different Techniques involved in traditional machining process.
	CO4	Students will be able to understand the manufacturing process of complex shape products.
	CO5	Upon completion of this course, students will analyze the basic components of Lathe machine, Milling Machine, Drilling machine, Grinding Machine and different tools handled.

GRAFICAL REPRESENTATION



Section B (Answer any FOUR out of SIX) – 20 Marks

(Each question 5 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
2	Define artificial pollution. Explain soil, water and noise pollution.	5	CO1	K2	PO2
3	What are the precaution to reduce air pollution suggest some methods	5	CO2	K3	PO12
4	Explain natural disaster, what are its type.	5	CO3	K5	PO12
5	Explain drought what are the reason of draught or un even rain fall.	5	CO4	K3	PO12
6	What are manmade disaster. Explain briefly.	5	CO5	K4	PO12
7	What are the reason of draught or un even rain fall.	5	CO4	K5	PO12

Section C (Answer any THREE out of FIVE) – 30 Marks-

(Each question Carry 10 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
8	What is disaster impact. Explain environmental and physical impact.	10	CO1	K6	PO12
9	What is climate change. What are its reason and impact on our environment.	10	CO2	K4	PO12
10	What are the reason of urban disaster and suggest some methods to reduce urban disaster.	10	CO3	K3	PO12
11	How health of human affect by pollution, also explain type of pollution.	10	CO4	K5	PO12
12	What is disaster impact. Explain environmental and physical impact.	10	CO1	K6	PO12



Branch	Civil Engineering	Program	B.Tech
Subject Name	Hydraulic Engineering	Semester	5th
		Year	2022/ Odd

- Start writing from 2nd page onwards; don't write on the 1st Page Backside
- Answer all Questions of Section A (Compulsory)
- Answer Any Four out of Six of Section B
- Answer Any Three out of Five of Section C

Time: 3 Hour
Max. Marks : 70

• Possession of Mobile Phones or any kind of Written Material, Arguments with the Invigilator or Discussing with Co-Student will come under Unfair Means and will Result in the Cancellation of the Papers.

Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating
	K2 : Understanding	K4 : Analysing	K6 : Creating

Section A (Each question Carry 02 Marks from Q1-i to Q1-x) - 20 Marks

Q. N1	QUESTIONS	Marks	COs	KL	PO
i	State and explain specific energy and critical depth.	2	CO1	K1	PO2
ii	What do you understand by hydraulic jump. What are its condition.	2	CO2	K1	PO2
iii	Explain Reynolds and Froude no.	2	CO3	K1	PO2
iv	Explain briefly gradually varied flow and rapid varied flow.	2	CO4	K1	PO2
v	Difference between Steady and unsteady uniform flow and nonuniform flow.	2	CO2	K1	PO2
vi	Condition for most economical trapezoidal channel.	2	CO3	K1	PO2
vii	Difference between pipe flow and open channel flow.	2	CO1	K1	PO2
viii	Explain Unsteady uniform and Unsteady non uniform flow.	2	CO1	K1	PO2
ix	Define Hydraulic radius and Hydraulic depth in open channel flow.	2	CO2	K1	PO2

CO- Course Outcomes, **KL- Knowledge Level,** **PO - Program Outcome**

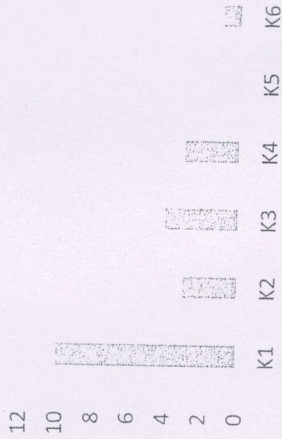
Course Outcomes	CO1	Upon completion of this course, students will be able to understand the different conventional and unconventional manufacturing methods employed for making different products.
	CO2	Upon completion of this course, the students will have an overview of the mechanical behavior and application of tools used in machining purpose.
	CO3	Upon completion of this course, the students will be able to examine the different Techniques involved in traditional machining process.
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GRAFICAL REPRESENTATION

Bloom level wise distribution



Course outcome wise distribution



CO1 CO2 CO3 CO4 CO5 CO6

x	For obtaining most economical Trapezoidal channel section with depth of flow =3m, What is the hydraulic mean radius.	2	CO3	K1	PO12
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Section B (Answer any FOUR out of SIX) - 20 Marks

(Each question 5 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
2	Draw and Explain specific energy curve, and explain its components.	5	CO2	K3	PO2
3	For a laminar flow a channel, Reynolds number is given by 1500. Calculate the friction factor.	5	CO3	K2	PO12
4	The water flows fully through the rectangular channel lateral dimensions 4m x 3m. What is the velocity of flow (m/s) through the channel, if the slope of energy line and chezy's constants is given as 0.0006 and 90 respectively.	5	CO4	K3	PO2
5	Difference between pipe flow and open channel flow.	5	CO2	K2	PO2
6	Explain the of open channel on the basis of Boundary and shape of the channel.	5	CO3	K3	PO12
7	State and explain geometric parameters of open channel flow.	5	CO3	K3	PO12

Section C (Answer any THREE out of FIVE) - 30 Marks-

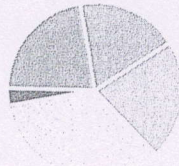
(Each question Carry 10 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
8	A trapezoidal channel of side slope of 3 horizontal and 4 vertical and slope of its bed is 1 in 2000 determine the optimum dimension of the channel, if it is carry water 0.5m ³ /s take chezy's constant is 80.	10	CO1	K4	PO12
9	Find the discharge through a trapezoidal channel of width of 8m and side slope of 1h and 3v. The depth of water flow is 2.4 and value of chezy's constant is C=50 the slope of bed of channel is 1 in 4000.	10	CO1	K6	PO12
10	Derive the condition critical depth y_c from minimum specific energy and maximum discharge.	10	CO3	K4	PO12
11	Explain Froude no. and Reynolds no. Explain its all condition of flow characters. And its ratios.	10	CO2	K4	PO12
12	Explain gradually varied flow and its flow pattern. With net sketch diagram	10	CO4	K2	PO12

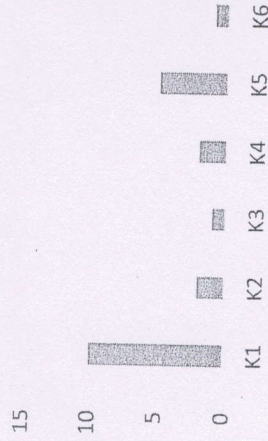
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CO4	Students will be able to understand the manufacturing process of complex shape products.
CO5	Upon completion of this course, students will analyze the basic components of Lathe machine, Milling Machine, Drilling machine, Grinding Machine and different tools handled.

GRAFICAL REPRESENTATION

Bloom level wise distribution



Course outcome wise distribution



Branch	Civil Engineering	Program	B.Tech
Subject Name	Hydrology and Water resource Engineering	Semester	5th
		Year	2022/Odd
Time: 3 Hour Max. Marks : 70	<ul style="list-style-type: none"> Start writing from 2nd page onwards; don't Write on the 1st Page Backside Answer all Questions of Section A (Compulsory) Answer Any Four out of Six of Section B Answer Any Three out of Five of Section C Possession of <u>Mobile Phones</u> or any kind of <u>Written Material, Arguments with the Invigilator or Discussing with Co-Student</u> will come under <u>Unfair Means</u> and will <u>Result in the Cancellation of the Papers.</u> 		
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating
	K2 : Understanding	K4 : Analysing	K6 : Creating

Section A (Each question Carry 02 Marks from Q1-i to Q1-x) – 20 Marks

Q. N1	QUESTIONS	Marks	COs	KL	PO
i	What is Hydrological cycle?	2	CO1	K1	PO2
ii	Define Hydrology.	2	CO1	K1	PO2
iii	Write water budget equation.	2	CO2	K1	PO2
iv	History of hydrology.	2	CO1	K1	PO2
v	Define world water balance.	2	CO2	K1	PO2
vi	Write sources of water.	2	CO1	K1	PO2
vii	Define precipitation	2	CO2	K1	PO2
viii	Explain percolation.	2	CO3	K1	PO2
ix	Define catchment Area.	2	CO3	K1	PO2
x	Recall the different crop seasons in India.	2	CO4	K1	PO2

Section B (Answer any FOUR out of SIX) - 20 Marks

(Each question 5 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
2	Define and explain earthen dam.	5	CO1	K2	PO2
3	Explain modes of failure of gravity dam.	5	CO1	K2	PO12
4	Factors affecting infiltration capacity Explain.	5	CO2	K4	PO2
5	Classify the Types of aquifer	5	CO3	K5	PO12
6	Explain types of well. With neat sketch diagram.	5	CO4	K6	PO12
7	Define and explain world water requirement.	5	CO1	K5	PO2

Section C (Answer any THREE out of FIVE) - 30 Marks-

(Each question Carry 10 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
8	Draw neat sketch diagram of hydraulic cycle. And also write its components.	10	CO2	K5	PO12
9	Explain Factors effecting on hydrograph.	10	CO3	K3	PO2
10	Define and explain zone of storage of reservoir	10	CO4	K4	PO12
11	Define irrigation efficiency and explain Water application, and efficiency of water use.	10	CO5	K5	PO12
12	Explain discharge through open well.	10	CO3	K5	PO2