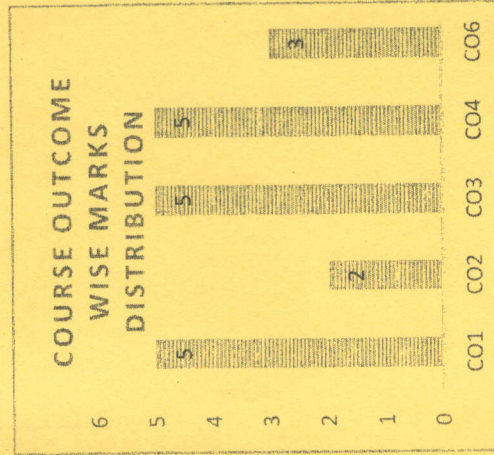
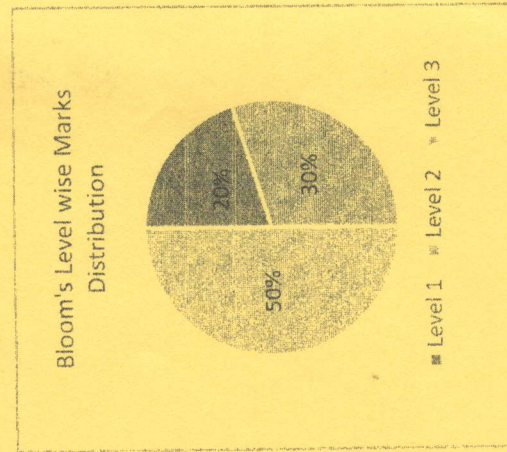


CO- Course Outcomes, KL- Knowledge Level, PO - Program Outcome

CO1	Analyse the principles of Indian constitutional law, undertake self-directed legal research at an advanced level, and evaluate complex legal information.
CO2	Critique the operation of constitution of India from a theoretical and policy perspective.
CO3	Structure sustained and concise written and oral arguments for a legal audience
CO4	Analyse the operation of the Constitution of India from a policy perspective, and in the context of social and cultural diversity
CO5	Communicate effectively individually and as part of a team. Work in collaboration with others to prepare written documents. Engage with team members in an ethical and professional manner
CO6	Apply legal and theoretical concepts to specific situations



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extra



END TERM EXAMINATION

Branch	B.Tech All	Program	B.Tech
Subject Name	Constitution Of India	Semester	IIInd
Course Code	BTE22268	Year	2022/Even

Time: 3 Hour
Maximum Marks : 35

- Start writing from 2nd page onwards; don't Write On The 1st Page Backside
- Answer all Questions of Section A (Compulsory)
- Answer Any TWO out of FOUR of Section B
- Answer Any ONE out of THREE of Section C
- Possession of Mobile Phones or any kind of Written Material, Arguments with the Invigilator or Discussing with Co-Student will comes 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 01 Marks from Q1a to Q1j) – 10 Marks

Q. No.1	QUESTION	Marks	COs	KL	PO
1a	Explain the Preamble and its significance?	2	CO4	K4	PO1 0
1b	Analysing the freedom of speech & expression and the restrictions imposed on this freedom	2	CO1	K2	PO6
1c	Analysing the Quasi-federal system? Explain the concept of Federalism.	2	CO1	K4	PO8
1d	Define the features of Basic Structure Doctrine?	2	CO2	K4	PO2
1e	Examine the powers of the President.	2	CO1	K1	PO2


Q. No.	QUESTION	Marks	COs	KL	PO
1f	Define Money Bill.	2	CO1	K4	PO8
1g	Write a note on Preamble of the Constitution.	2	CO1	K2	PO6
1h	Can Preamble be amended under Article 368?		CO4	K4	PO1 0
1i	Write a note on Impeachment of Judges.		CO4	K4	PO1 0
1j	Define Ordinary Bill.		CO1	K4	PO8

Section B (Answer any TWO out of FOUR) - 10 Marks (Each question 5 Marks)

Q. No.	QUESTION	Marks	COs	KL	PO
2a	Explain the difference between Fundamental Rights & Legal Rights	3	CO2	K2	PO6
2b	Analyse the function of Election Commission of India	2	CO4	K4	PO2
3a	Explain the election process of the President of India? What are his functions?	3	CO2	K1	PO2
3b	Analyse Right to property is a fundamental right or legal right?	2	CO6	K4	PO6
4	Analyzing the equality before law from equal protection of law.	5	CO6	K4	PO2
5	Describe the freedoms provided under Article 19 of the Constitution of India.	5	CO3	K2	PO10

Section C (Answer any ONE out of THREE) - 15 Marks

Q. No.	QUESTION	Marks	COs	KL	PO
6a	Explain the significance of Directive Principles of State Policy.	5	CO2	K2	PO6
6b	Discuss the importance of the prohibitions imposed under Article 15.	10	CO4	K4	PO2
7a	Examine the powers of the President.	10	CO2	K1	PO2
7b	What is National emergency? Discuss its effects on fundamental rights	5	CO4	K4	PO10
8a	Write a note on Tenure and Removal of Supreme Court Judges	10	CO6	K4	PO2
8b	Examine the constitutional position of Governor of a State.	5	CO3	K2	PO10

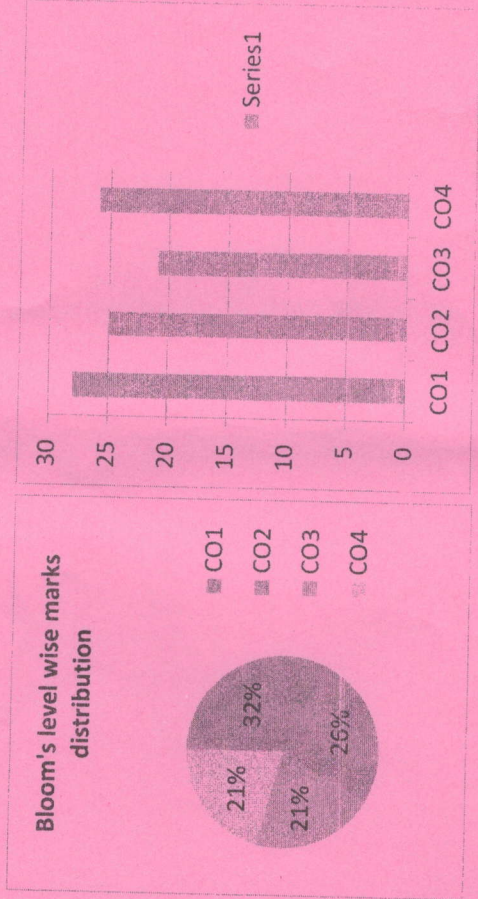
 ARKAJAIN University Jharkhand		END TERM EXAMINATION		
		Program	B.TECH	
Branch	ALL	Programming For Problem Solving	Semester	IIInd
Course Name	BTE21259	Year	2022/Even	
Time: 3 Hour Maximum Marks : 70	<ul style="list-style-type: none"> Start writing from 2nd page onwards; don't Write On The 1st Page Backside 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 Q1a to Q1j) – 20 Marks

Q. No.1	QUESTION	Marks	COs	KL	PO
1a.	What is meant by call-by value and call-by reference?	2	CO1	K1	PO1 2
1b.	Write and explain the syntax of function?	2	CO1	K4	PO2
1c.	What is a function? Write the types of functions.	2	CO6	K5	PO3
1d.	Define pointer. How can you declare it?	2	CO3	K3	PO5
1e.	Define Structure? How to Initialize a Structure?	2	CO1	K1	PO1 2
1f.	What is meant by a data type?	2	CO1	K1	PO1 2
1g.	Point out the meaning of user-defined function.	2	CO1	K4	PO2

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

Course Outcomes	CO1	Formulate simple algorithms for arithmetic and logical problems.
	CO2	Students will be able to comprehend the general structure of C program, concepts of variable, data type, and operator and be able to create a C program to demonstrate these concepts.
	CO3	Test and execute the programs and correct syntax and logical errors.
	CO4	Implement conditional branching, iteration and recursion.
	CO5	Decompose a problem into functions and synthesize a complete program using divide and conquer approach.
	CO6	Decompose a problem into functions and synthesize a complete program using divide and conquer approach.



1h.	Specify any two applications of Array.	2	CO6	K5	PO3
1i.	Differentiate between variable and constant.	2	CO3	K3	PO5
1j.	What is an array? Write the syntax for array	2	CO1	K1	PO1 2

Section B (Answer any FOUR out of SIX) – 20 Marks (Each question 5 Marks)

Q. No.	QUESTION	Marks	COs	KL	PO
2	Write and explain syntax of –for loop.	5	CO1	K1	PO12
3	Distinguish between while and do-while statements.	5	CO4	K4	PO5
4	Differentiate between break and continue.	5	CO2	K1	PO2
5	Define exit and return statements	5	CO5	K2	PO12
6	Write and explain about switch statement.	5	CO2	K1	PO2
7	Write and explain syntax of –forl loop.	5	CO5	K2	PO12

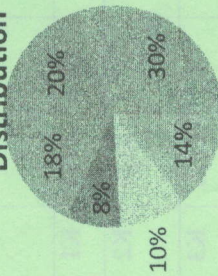
Section C (Answer any THREE out of FIVE) – 30 Marks-(Each question Carry 10 Marks)

Q. No.	QUESTION	Marks	COs	KL	PO
8	Explain various branching statements in C with examples.	10	CO4	K6	PO5
9	Write a program to check whether the given number is palindrome or not.	10	CO1	K5	PO3
10	Write a program to find the factorial of a given number.	10	CO3	K2	PO7
11	Write a program to generate n Fibonacci numbers	10	CO1	K1	PO12
12	Define an array. How to initialize one-dimensional array? Explain with suitable examples.	10	CO1	K2	PO12

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

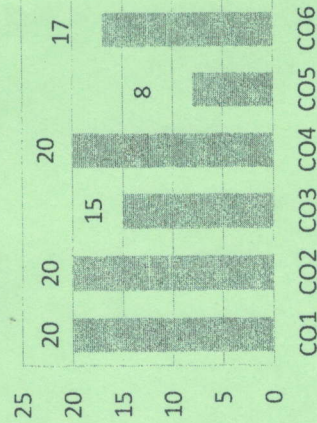
CO1	Identify and understand the kinds of experimental results which are incompatible with classical Physics leading to the development of a quantum theory of matter and light.
CO2	Use basic concepts to analyze and design a wide range of semiconductor devices.
CO3	Understand & solve different types of wave equations.
CO4	Use the principles of optics to solve various complex engineering problems.
CO5	Use fundamental laws and relations to solve problems in electricity, electromagnetism

Bloom's Level Wise Marks Distribution



Level 1 Level 2 Level 3
Level 4 Level 5 Level 6

Course Outcome Wise Marks Distribution



ARKAJAIN
University
Jharkhand

END TERM
EXAMINATION

Branch	ALL	Program	B.tech
Course Name	Engineering Physics	Semester	II
Course Code	BTE22010	Year	2022/Even

Time: 3 Hour
Maximum
Marks : 70

- 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.

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

Section A (Each question Carry 02 Marks from Q1a to Q1j) – 20 Marks

Q. No.1	QUESTION	Marks	COs	KL	PO
1a.	Define de-Broglie hypothesis?	2	CO1	K1	PO1
1b.	What do you mean by Compton Effect?	2	CO1	K4	PO3
1c.	Discuss the salient features of free electron theory.	2	CO2	K2	PO2
1d.	Illustrate the V-I characteristics of a p-n Junction diode?	2	CO2	K3	PO4
1e.	Explain the terms amplitude, frequency and phase of a wave.	2	CO3	K6	PO3
1f.	Compare Simple harmonic motion with oscillatory motion?	2	CO3	K2	PO5
1g.	Discuss Main Components of a Laser	2	CO4	K2	PO3

1h.	What are the three distinct processes by which a transition can take place?	2	CO4	K6	PO3
1i.	Write Maxwell equations in Differential Form.	2	CO5	K4	PO2
1j.	Give the physical interpretation of differential form of Gauss's law in magneto statics	2	CO5	K2	PO2

Section B (Answer any FOUR out of SIX) - 20 Marks (Each question 5 Marks)

Q. No.	QUESTION	Marks	COs	KL	PO
2a	Discuss Wave -particle Duality?	2	CO1	K1	PO1
2b	The de-Broglie wavelength of the electron is 30 Å. Calculate the phase velocity and group velocity of the matter wave associated with the electron	3	CO1	K4	PO4
3a	Classify Conductors, Semiconductors and Insulators on basis of Band theory of solid?	3	CO2	K3	PO2
3b	How does the Fermi level play a significant role in semiconductors?	2	CO2	K3	PO3
4a	Define simple harmonic motion?	2	CO3	K2	PO4
4b	Derive the differential equation for SHM from Displacement?	3	CO3	K6	PO5
5a	Write the characteristics of a laser beam?	2	CO4	K5	PO2
5b	Explain Spontaneous Emission and Stimulated Emission?	3	CO4	K4	PO5
6a	Distinguish between Fresnel's and Fraunhofer's diffraction	2	CO4	K6	PO3
6b	Discuss the necessary conditions for obtaining sustained interference	3	CO4	K4	PO4
7a	Discuss Equation of Continuity?	2	CO5	K6	PO3
7b	Explain Deferential form of Faraday's law?	3	CO5	K2	PO5

Section C (Answer any THREE out of FIVE) - 30 Marks-(Each question Carry 10 Marks)

Q. No.	QUESTION	Marks	COs	KL	PO
8a	What is Heisenberg uncertainty Principle?	2	CO1	K2	PO2
8b	Derive Expression for the Planck's Formula of Black Body Radiation?	5	CO1	K3	PO2

8c	Calculate the work function in electron volts of a metal, given that photoelectric threshold is 6200 Å	3	CO1	K4	PO4
9a.	Explain E-K Diagram?	2	CO2	K1	PO2
9b.	Derive an expression for the concentration of electrons in conduction band and holes in valence band?	4	CO2	K3	PO3
9c	Calculate the number of donor atoms per m ³ of n-type material having resistivity of 0.25 Ω-m, the mobility of electrons is 0.3 m ² /v-s.	4	CO3	K4	PO4
10c.	Write the differential equation for the damped natural oscillation of a particle?	4	CO2	K2	PO2
10b.	Give the conditions for over damping, critical Damping and under damping action.	3	CO4	K2	PO4
10c.	The amplitude of an oscillator of frequency 200 per second falls to 1/10 of its initial value after 2000 cycles. Calculate (i) relaxation time, (ii) quality factor	3	CO4	K4	PO2
11a.	Give the description of He-Ne laser?	2	CO4	K1	PO1
11b.	Explain the construction and working of He-Ne Laser?	5	CO4	K2	PO3
11c.	Discuss the necessary conditions for obtaining sustained interference	3	CO5	K3	PO1
12a.	Derive Modified form of Ampere's Circuital law?	4	CO5	K3	PO1
12b.	Prove that electromagnetic wave in free is transverse in nature?	6	CO5	K6	PO1