



GANDHI INSTITUTE FOR TECHNOLOGY (GIFT)
(An Autonomous Institution)

Registration No:

--	--	--	--	--	--	--	--

Total Number of Pages: 02

MCA
MC-T-PC-106

1st Semester End Semester Examination: 2023-24

Subject Name: Data Structures

BRANCH(S): MCA

Time: 3 Hour

Max Marks: 100

Q. Code: M24105

*Answer Question No. I (Part-I) which is compulsory, any eight from Part-II and any two from Part-III
The figures in the right hand margin indicate marks.*

Part - I			
01	Answer the following questions: (02 x 10)	CO	BTL
a)	Explain time complexity and space complexity of an algorithm.	1	1
b)	Find the address of A [2][7] while base address is given as 2100 using row major and column major address calculation.	1	1
c)	Write the equivalent prefix expression for the following infix expression: $X * (A + B/C) * D - E * F$	2	1
d)	What do you mean by queue underflow and queue over flow? Mention their conditions?	2	1
e)	What is Self-referential structure? Explain with an example	3	1
f)	Name the different techniques being used for collision resolution in hashing.	6	3
g)	Find the <u>inorder</u> and <u>preorder</u> traversal of the following binary tree. B / \ C G / \ / \ E Y D Inorder: B C E Y D Preorder: B C B G Y D Postorder: E C B Y D	4	2
h)	Differentiate between a complete binary tree and almost complete binary tree with proper example.	4	2
i)	Given in the digraph G(V,E) , V={v1,v2,v3,v4,v5}, E={(v1,v2),(v2,v3),(v1,v5),(v5,v3),(v4,v3),(v4,v1)}. <u>Draw the graph</u> and check whether it is <u>cyclic or not</u> .	5	3
j)	Name the different techniques being used for collision resolution in hashing.	6	3
02	Answer any 8 questions (06 x 8)	CO	BTL
a)	Write an algorithm for inserting and deleting an element from single linked list after a specified position?	1	2
b)	Write the algorithm/Functions for PUSH and POP operation on Stack (implemented using array).	2	2
c)	Define a function to delete a node from a queue implemented by using linked list.	2	2
d)	<u>Construct the binary tree</u> from the following traversals and give a linear <u>array representation</u> of the tree. In order: D, B, H, E, A, F, C, I, G Preorder: A, B, D, E, H, C, F, G, I	4	3
e)	Simulate the insertion sort using sorting algorithm and show the step by step of the given values: 33, 18, 13, 28, 25, 19, 45, 9, 23, 32	3	3
f)	What is binary search tree (BST) ? For the following given sequence of numbers i) Construct BST : 45, 28, 37, 65, 22, 74, 87, 43, 88, 25 ii) After constructing the BST delete node 65	6	3
g)	Traverse the following graph using Breadth First Search and Depth first search Technique-	5	2



GANDHI INSTITUTE FOR TECHNOLOGY (GIFT)
(An Autonomous Institution)

Registration No:

--	--	--	--	--	--	--	--	--

	h)	Write an algorithm for quick sort in descending order.	6	3
	i)	Find the number of different topological orderings possible for the given graph. A-B, A-C, B-C, B-D, C-E, D-E	5	3
	j)	What is the application of Hashing in data structure? What are different types of collision resolution techniques used in Hashing.	6	3
	k)	Write short notes on B+-TREE with suitable example.	3	4
	l)	Using the hash function ' <u>key mod 7</u> ', insert the following sequence of keys in the hash table- <u>50, 700, 76, 85, 92, 73, 101</u> Use <u>separate chaining</u> technique for collision resolution. Show the final hash table.	5	4
	Answer any Two questions from the Q-3 to Q-6 (16 x 2)			CO
03	a)	What do you know by data structure. Explain different types of Data structure with suitable examples.	1	2
	b)	Write an algorithm for insert and delete an item into and from a queue respectively. (Implement Queue using array)	2	3
04	a)	Which data structures are used for BFS and DFS traversal of graph? Write the adjacency matrix of the following graph and perform DFS traversal by considering start node as 0. start	2	2
	b)	Use a stack to translate the following infix expression to postfix. $A*(B + C)/D - E*(A + B)/F$ Show the status of stack at every step.	2	3
05	a)	What is linked list? Write an algorithm to INSERT an element at the end of a single linked list.	1	3
	b)	 Find the minimal spanning tree for the above-mentioned graph using prims algorithm.	4	4
06	a)	Draw an AVL tree whose elements are inserted in the following order: 45, 26, 37, 18, 42, 8, 13, 60, 39, 54, 60.	5	4
	b)	Write a program to implement Selection sort algorithm.	6	3



GANDHI INSTITUTE FOR TECHNOLOGY (GIFT)
(An Autonomous Institution)

Registration No:

--	--	--	--	--	--	--	--	--

Total Number of Pages: 02

MCA
MC-T-PC-113

1st Semester MCA End Semester Examination: 2023-24

Subject Name: Computer Organization & Architecture

BRANCH(S): MCA

Time: 3 Hour

Max Marks: 100

Q. Code: M24102

*Answer Question No. I (Part-I) which is compulsory, any eight from Part-II and any two from Part-III
The figures in the right hand margin indicate marks.*

Part - I				
01	Answer the following questions:	(02 x 10)	CO	BTL
a)	Represent -13 by using 2's complement.	1	1	
b)	For A=0 , B=1 , C=1 and D=0 , Write the min term and max term .	1	1	
c)	For the expression P=>Q, write the converse, inverse and contra positive.	2	1	
d)	Draw the logic gate diagram for a 8 X 1 multiplexer.	2	1	
e)	Draw the characteristics table of J-K flip flop.	3	1	
f)	Write the differences between CISC and RISC.	3	2	
g)	Explain cache hit and cache miss by taking suitable example.	4	2	
h)	Write difference between multiprocessing and multiprogramming.	4	2	
i)	Write a short note on working of an assembler.	5	3	
j)	Differentiate between SRAM & DRAM.	4	2	
02	Answer any 8 questions	(06 x 8)	CO	BTL
a)	Reduce the following expression by using K- map. $F(A,B,C,D) = \Sigma (1,3,5,7,8,9,10,11,14,15)$. Also the logic gate diagram of the reduced expression	1	2	
b)	State demorgan's law. Prove them by using truth table.	2	2	
c)	Write the difference between combinational circuit and sequential circuit.	2	2	
d)	State whether the following expression is Tautology, Contradiction or a Contingency with the help os a truth table:	4	2	



GANDHI INSTITUTE FOR TECHNOLOGY (GIFT)
(An Autonomous Institution)

Registration No:

--	--	--	--	--	--	--	--	--

		(X=>Z) V ~ [(X=>Y \wedge Y =>Z)]		
	c)	What is Decoder? Draw logic diagram for binary to Octal Decoder.	3	3
	f)	Differentiate between an instruction and micro instruction.	6	3
	g)	What is instruction format? Discuss different types of instruction formats.	5	2
	h)	What is the basic purpose of system buses?	6	3
	i)	Discuss about memory mapped I/O and interrupt driven I/O.	5	2
	j)	Discuss about hardware structure of 8086 .	6	3
	k)	Explain interconnection structure of multiprocessors.	3	4
	l)	Explain virtual memory concept with its implementation	3	4

		Answer any Two questions from the Q-3 to Q-6 (16 x 2)	CO	
03	a)	Reduce the following Boolean function using K-map. F(A,B,C,D)= $\pi(4,6,7,10,11,14,15)$. Also draw the logic gate of the simplified expression.	1	2
	b)	What is full adder? Write the truth table and draw logic gate diagram of a full adder.	1	3
04		What is control unit? What is the general model of control unit? Illustrate a CPU indicating all its functional units and corresponding control signals.	2	2
05	a)	A computer system uses 16-bit memory addresses. It has a 2K-byte cache organized in a direct-mapped manner with 64 bytes per cache block. Assume that the size of each memory word is 1 byte. Calculate the number of bits in each of the Tag, Block, and Word fields of the memory address.	3	3
	b)	What is demultiplexer? Draw the logical circuit of 1:8 demux.	4	4
06	a)	Explain why interface is always required between the peripheral and processor communication.	5	4
	b)	Explain the working of Base addressing mode and Index addressing mode.	6	3

** BTL: Bloom's Taxonomy Level

** CO: Course Outcomes



GANDHI INSTITUTE FOR TECHNOLOGY (GIFT)
(An Autonomous Institution)

Registration No:

--	--	--	--	--	--	--	--	--

Total Number of Pages: 02

MCA
MC-T-BS-101

1st Semester End Semester Examination: 2023-24

Subject Name: Discrete Mathematics & Graph Theory (DMGT)

BRANCH(S): MCA

Time: 3 Hour

Max Marks: 100

Q. Code: M24101

Answer Question No. 1 (Part-I) which is compulsory, any eight from Part-II and any two from Part-III

The figures in the right hand margin indicate marks.

Part - I		Marks		
01	Answer the following questions:	(02 x 10)	CO	BTL
a)	Is $x+3=5$ a proposition ? Justify.	1	1	
b)	Let $q(x, y)$ denote the statement $x + y = 3$. What are the truth values of $q(2,3)$ and $q(-1,2)$?	1	1	
c)	Let $R=\{(1,2),(2,3),(3,1),(1,1)\}$ be a relation defined on the set $A=\{1,2,3\}$, Then write reflexive closure of the relation R	2	1	
d)	Let the relation $R = \{(1,1), (1,2), (1,4), (2,3), (2,4), (3,4), (4,1), (4,3)\}$ on the set $\{1,2,3,4\}$. Represent the relation in a di-graph.	2	1	
e)	Write order and degree of the recurrence relation : $an-7an-1+10an-2+5an-3=0.$	3	1	
f)	Find the values of the Boolean function represented by $(x, y, z) = x \cdot y + \bar{z}$.	3	2	
g)	Find the formula for the sequence with following first five terms: 1, $1/2$, $1/4$, $1/8$, $1/16$.	4	2	
h)	Compute $\sum_{i=1}^3 \sum_{j=1}^2 i - j$	4	2	
i)	Determine whether the poset $(\{1, 2, 4, 8, 16\},)$ is lattice.	5	3	
j)	What is Cut vertices and Cut edges?	5	3	
		Marks		
02		(06 x 08)	CO	BTL
a)	Show that $p \wedge (q \vee r)$ and $(p \wedge q) \wedge (p \wedge r)$ are logically equivalent .	1	2	
b)	The function $f:R \rightarrow R$ defined by $f(x)=2x+3 \forall x \in R$. Show that the function is one-one and onto.	2	2	
c)	If $R=\{(1,2),(2,3),(3,1)\}$ be a relation defined on the set $A=\{1,2,3\}$, Then find R^2, R^3 .	2	2	
d)	Using Warshall's Algorithm, find the transitive closure of the relation $R = \{(1,4), (2,1), (2,3), (3,1), (3,4), (4,3)\}$ on the set $A = \{1,2,3,4\}$.	4	2	
e)	Let R be the relation on the set of ordered pairs of positive integers such that $(a, b), (c, d) \in R$ if and only if $ad = bc$. Show that R is an equivalence	3	3	



GANDHI INSTITUTE FOR TECHNOLOGY (GIFT)
(An Autonomous Institution)

Registration No:

--	--	--	--	--	--	--	--

		relation.			
	f)	Solve the recurrence relation: $a_n - 7a_{n-1} + 10a_{n-2} = 0, a_0 = 2, a_1 = 1$.	6	3	
	g)	Let R be the relation $R = \{(a, b) a \text{ divides } b\}$ on the set of positive integers. Find (a) R^{-1} and (b) \bar{R}	5	2	
	h)	Find the sum of the products and products of sum of the Boolean function $F(x, y, z) = (x + y + z)$	6	3	
	i)	Prove that the set of integers Z with binary operation '*' is defined by $a * b = a + b + 1, \forall a, b \in Z$ is an abelian group.	5	2	
	j)	A subgroup H of a group G is normal in G if and only if $g^{-1}Hg = H, \forall g \in G$.	6	3	
	k)	Prove that there is a simple path between every pair of distinct vertices of a connected undirected graph.	3	4	
	l)	A non-empty subset H of a group G is a subgroup of $(G, *)$ if and only if $a, b \in H \Rightarrow a * b^{-1} \in H$	3	5	

Marks

		Answer any Two questions from the Q-3 to Q-6	(16 x 2)	CO	
03	a)	Use mathematical induction to prove that: $1^3 + 2^3 + 3^3 + \dots + n^3 = \left[\frac{n(n+1)}{2}\right]^2$ for, $n \geq 1$	8		2
	b)	Prove or disprove validity of the following arguments: All astronauts are scientists. Some astronauts are engineers. Therefore some engineers are scientists .	8		3
04	a)	Let R be a relation on a set A . There is a path of length 'n' where n is a positive integer, from a to b if and only if $(a, b) \in R^n$.	8		2
	b)	Let m be a positive integer with $m > 1$. Show that the relation $R = \{(a, b) a \equiv b \pmod{m}\}$ is an equivalence relation of the set of integers.	8		3
05	a)	Find all the solution of the recurrence relation $a_n = 5a_{n-1} - 6a_{n-2} + 7^n + 2n$.	8		4
	b)	Show that the set of all positive rational numbers is an Abelian Group under binary operation '*' defined by $a * b = \frac{ab}{3}$, where ab is the ordinary multiplication of two positive rational numbers a and b .	8		5
06	a)	If H is a non-empty finite subset of a group G such that $a, b \in H$ then H is a sub-group of G .	8		4
	b)	Prove that an undirected graph has an even number of vertices of degree.	8		5

** BTL: Bloom's Taxonomy Level

** CO: Course Outcomes

BTL are:

1. Remembering, 2. Understanding, 3. Applying, 4. Analysing, 5. Evaluating and 6. Creating.



Registration No.:

--	--	--	--	--	--	--	--	--	--

Total Number of Pages: 03

MCA
MC-T-SC-115

1st Semester End Semester Examination: 2023-24

Skill Enhancement and Personality Development

BRANCH(S): MCA

Time : 3 Hour

Max Marks :100

Q. Code: M24106

*Answer Question No. 1 (Part-I) which is compulsory, any eight from Part-II and any two from Part-III
The figures in the right hand margin indicate marks.*

Part -I

Q1. Answer the following questions:

(2 x 10)

- Find the average of first 73 even numbers and 58 odd numbers.
- How many total no of digits are written in writing the page no of books having 2749 no of pages?
- The average age of P,Q,R and S is 39 years. Average age of P and R is 33 years. Find the average age of Q and S.
- Find the greatest number that divides 76,151 and 226 and leaves remainder 2,3,4 respectively.
- B is brother of D. D is sister of E. E is brother of F. F is sister of K. How is B related to K?
- A man was facing towards south-east. He turns 45 degree left then 135 degree right then 270 degree clockwise and finally 135 degree anti clockwise. Find the final direction he is facing.
- What is the angle between the minute hand and the hour hand of a clock when the time is 4:20pm?
- In a certain code language, 'VIRTUE' is coded as '201' and 'TRAGEDY' is coded as '218'. How will 'PROFANE' be coded in that language?

Fill in the blanks using the correct form of Tenses (Present, Past and Future)

- What ___ (be) the next step in our project if we ___ (finish) the research?

Fill in the blanks using suitable Prepositions

- The painting was hung _____ the wall _____ two ornate sconces.

Part -II

(6 x 8)

2. Answer any eight out of twelve.

- Answer the following questions

- The daily wage of a person decreased by $16\frac{2}{3}\%$ and the person now gets 95 rupees per day. What was his wage before the decrease?
- The salary of P is 25% less than Q. By how much % the salary of Q is more than P?

- Answer the following questions

- The price of sugar is increased by 20%. By what % should a family reduce the consumption of sugar to maintain the same expenditure on sugar as before?
- The commission to a sales man on the sale in addition to Rs 10000 is 37.5%. If he sells products of Rs 26000. Find his commission.

- A circular wire is cut and is bent in the form of a rectangle whose sides are in the ratio 5:6. Find the 25% of the smaller side of the rectangle. Given the radius of the circular wire is 42 cm.
- How many numbers greater than 1000 and less than 4000 can be formed by using the digits 0,1,2,3,4 if repetition of digits are allowed?
- A and B pick up a card one after another and replace it every time till one of them get a card of club. If A begins the game what is the probability of B finish the game?
- Ramesh starts from point A, goes 10km towards north takes right turn goes 5 km then takes left turn goes 5km then takes right turn goes 10 km then takes right turn goes 5 km then takes left turn goes 5 km and finally takes right turn and goes 10 km. How far and in which direction is he now from the starting point?
- A clock is set right at 8 am. This clock gains 10 min in 24 hours. What will be the actual time when this clock indicates 1pm the following day?



GANDHI INSTITUTE FOR TECHNOLOGY (GIFT)
(An Autonomous Institution)

Registration No :

--	--	--	--	--	--	--	--	--	--

- h) A bag contains 50 paisa, 25 paisa, 20 paisa coins in the ratio 4:2:1 which amounts to rupee to 54. Find the no of 25 paisa coins in that bag.
- i) Answer the following questions
- Today is Monday. After 61 days, it will be ?
 - It was Sunday on Jan 1, 2006. What was the day of the week Jan 1, 2010?
 - The last day of a century cannot be?
- j) I am 4 years elder to my sister. My brother who is the youngest among us is 7 years younger to me. My father is 3 times the age of my brother and my mother is 3 years younger to my father. Find the age of my mother.
- k) Fill in the blanks using the correct form of Tenses (Present, Past and Future)
- By the end of this month, they _____ (complete) the renovation.
 - While I _____ (study) abroad next year, my friend _____ (take) care of my plants.
- l) Fill in the blanks using suitable Prepositions
- The treasure was hidden _____ the ancient ruins _____ a small chest buried beneath the rubble.
 - The cat darted _____ the bushes.

Part -III

(16x 2)

Answer any two out of four.

3. In a family there are 14 members including 7 males and 7 females. Bibek is married to Sweta and have two children named Anil and Sibani. Ajay is married to Alisha, the daughter of Mukesh and Ankita. Ambika is mother of Subham and Purbi. Akash is husband of Sibani and Anil is husband of Ambika. Sibani is daughter in law of Satya and Priti.

- What is the relationship of Sibani with respect to Purbi?
- What is the relationship of Ambika with respect to Alisha?
- What is the relationship of Subham with respect to Bibek?
- What is the relationship of Ajay with respect to Anil?
- What is the relationship of Satya with respect to Subham?
- What is the relationship of Priti with respect to Purbi?
- What is the relationship of Mukesh with respect to Subham?
- What is the relationship of Purbi with respect to Ankita?

4. Point A is 3km west of B. Point C is 2km north of B. Point E is 7km south of D. Point F is 3 km west of E. Point D is 4km west of C. Point G is 9km north of F.

- How far and in which direction is G with respect to D?
- How far and in which direction is F with respect to C?
- How far and in which direction is E with respect to G?
- How far and in which direction is B with respect to F?

5. The tower stands vertically on the ground from a point on the ground which is 30 m away from the foot of the tower. The angle of elevation of the top of the tower is 45 degree. Find the height of the tower.

6. Reading Comprehension

In the realm of speculative physics, the elusive nature of dark matter continues to confound and captivate the scientific community. The foundational quandary lies in its clandestine presence, evading detection through conventional means. Dark matter's enigmatic properties, presumed to outweigh visible matter by a substantial margin, prompt the formulation of diverse hypotheses, from exotic particle theories to modifications of



Registration No.:

--	--	--	--	--	--	--	--	--	--

gravitational laws. The enigma persists, shrouded in a cloak of uncertainty, compelling astrophysicists on a relentless quest for empirical evidence, striving to unravel the mystique veiling the cosmic hierarchy.

Questions:

1. What is the primary issue concerning dark matter?
A) Its visibility to the human eye
B) The inability to detect it conventionally
C) The abundance of visible matter
2. What fuels the intrigue surrounding dark matter?
A) Its confirmed properties
B) Its presumed dominance over visible matter
C) Its alignment with gravitational laws
3. How does the passage characterize dark matter's properties?
A) As clearly defined and understood
B) As akin to visible matter in weight
C) As mysterious and outweighing visible matter substantially
4. What does the passage suggest about the scientific community's approach to understanding dark matter?
A) A lack of interest in unravelling its mysteries
B) A disregard for empirical evidence
C) A persistent quest for empirical evidence to decipher its mysteries
5. What term best describes the cloak that surrounds the understanding of dark matter?
A) Certainty
B) Uncertainty
C) Clarity
6. According to the passage, what compels astrophysicists in their study of dark matter?
A) A lack of interest in cosmic hierarchies
B) The desire to embrace the mystique
C) The relentless pursuit of empirical evidence
7. What does the passage imply about the current status of understanding dark matter?
A) It's extensively understood and resolved
B) It's a subject of ongoing investigation and puzzlement
C) It's a trivial matter in the realm of physics
8. How does the passage portray the relationship between dark matter and gravitational laws?
A) As entirely unrelated phenomena
B) As intertwined in various proposed hypotheses
C) As disproving the existence of dark matter



GANDHI INSTITUTE FOR TECHNOLOGY (GIFT)
(An Autonomous Institution)

Registration No:

--	--	--	--	--	--	--	--

Total Number of Pages: 02

MCA
MC-T-PC-102

1stSemester End Semester Examination: 2023-24

Subject Name: Problem Solving Using C

BRANCH(S): MCA

Time: 3 Hour

Max Marks: 100

Q. Code: M24104

*Answer Question No. 1 (Part-I) which is compulsory, any eight from Part-II and any two from Part-III
The figures in the right hand margin indicate marks.*

Part - I			
01	Answer the following questions: a) How do we name a variable in 'C' language. b) What do you mean by precedence & associativity of an operator ? c) Find the output of the following code ? <pre>#include <stdio.h> int main() { int d, a = 11, b = 12; d = a++ *++b; printf("%d %d %d", d, a, b); }</pre> d) Find the output of the following code ? <pre>int main() { int x = 20, y = 19; int z; z = y/(x*10) + y; printf("%d", z); return 0; }</pre> e) Write a piece of code to create an infinite loop. f) Write the use of strcat() with an example. g) Find the output of the following code ? <pre>#include<stdio.h> int main() { char str[] = {'s','o','L','a','r'}; printf("%s", str); return 0; }</pre> h) List the different types of pointer available in 'C'. i) Write the use of '.' Dot operator and '->' Arrow operator in relation to structure? j) Find the output of the following code ? <pre>void main() { char *p="gift"; clrscr(); while (*p!="\0"){ printf("%c",(*p)-32); p++; } }</pre>	(02 x 10)	CO BTL
02	Answer any 8 questions	(08 x 5)	CO BTL
a)	State and explain the concept of type conversion & type casting with a suitable program.	1	2



GANDHI INSTITUTE FOR TECHNOLOGY (GIFT)
(An Autonomous Institution)

Registration No.:

	b)	Write a program to input the age of three different persons and display the age of the youngest person using ternary operators.	2	3
	c)	Discuss the different types of control statement available in 'C' language with examples.	2	2
	d)	Write a program to display the following pyramid structure using nested loops :	2	3
		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		
	e)	Write a program to demonstrate declare, define and access structure members.	5	3
	f)	What is storage class and explain various type of storage class with suitable examples ?	4	3
	g)	Draw a flowchart to input the base and height of a triangle and display its area and perimeter.	2	3
	h)	Write a program to find the sum of first fifty natural numbers.	2	3
	i)	Write a program to input an integer and display its sum of the digits using pointers.	4	3
	j)	Write a program to create an integer array of 15 elements and count how many elements are divisible by 6.	3	3
	k)	Write a program to create an UDF to find the greatest between 10 integer value as given by the user.	3	3
	l)	Write a program to find the addition of two number using DMA.	4	3
	Answer any Two questions from the Q 3 to Q 6 (10 x 2)			
03	a)	Write a program and draw a flowchart to display all the prime numbers between 1 and 50.	2	2
	b)	Define an operator and discuss about the different types of operator available in 'C' with suitable examples.	1	3
04	a)	Write a program to input the shopping amount of a customer and calculate the payable amount after deducting discount amount as per the following criteria: Shopping amount in Rs. Discount in % on shopping amount Up to 10000 13 In between 10001 - 19999 15 In between 20001 - 29999 20 In between 30001 - 49999 25 Greater than equal to 50000 35	2	2
	b)	Explain call by value and call by reference with suitable programs.	4	3
05	a)	Write a C program to calculate the power of a number (M^N) using recursive function.	3	3
	b)	Write a program to input a string and display the total number of alphabets, numerals and special characters present in it.	4	3
06	a)	Write a program to perform matrix multiplication between two integer matrix of size (M X N) & (N X Q) by accepting positive integer values of M, N & Q from the user and display the resultant matrix .	3	3
	b)	Create Book structure with the following members : Book name, Book Code, Book Price , Book Edition & year of Publication for 150 books. Write a program to input data into the Book structure and display the details of all the Book Published in the year 2023 with appropriate messages.	5	6