Examine the vector $X_1 = (1$

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Name: Student University Roll No.:	School of Engineering		
First Sessional Examination, Odd Semester (AS: 2023-24)	B. Tech: CSE		
Year: II		Semester: III	
Course Title: Computer Concepts & Programming in C			M.M.: 30 Time: 1 hr
Course Code: BCS3305			

Instructions if any: Read the question Carefully.

	SECTION 'A'	Course Objective	Marks
Q.N.1. Attempt all parts of the following:			
a)	What is an algorithm? Define.	CO1	1
b)	What are the format specifiers of int, float, char and longint?	CO1	1
c)	Define flowchart.	CO1	1
d)	What is identifier? Give any example.	CO1	1
e)	Define 'keyword' in C language. Write any five keywords in C.	CO1	1

	SECTION 'B'	Course Objective	Marks
Q.N.2. Attempt any two parts of the following:			
a)	Explain storage classes in detail.	CO1	7.5
b)	Solve the given number type conversions i. $(167.45)_8 = (?)_{10}$ ii. $(961.12)_{10} = (?)_{16}$ iii. $(2CB.AD)_{16} = (?)_2$ iv. $(1101011101101110.10100111)_2 = (?)_{16}$	CO1	7.5
c)	Write an algorithm and draw a flowchart for calculating simple intrest using the formula SI=(P*T*R/100), where, P denotes principal amount, T denotes time and R denotes rate of interest.	CO1	7.5
d)	Explain the procedure of systematic development of software.	CO1	7.5

	SECTION 'C'	Course Objective	Marks
Q.N.3. Attempt any one part of the following			
a)	Explain various strategies of developing algorithms in detail.	CO1	10
b)	Explain the following: i. Assembler ii. Compiler iii. Interpreter iv. Linker v. Loader	CO1	10
c)	Write a program to print following pattern 1 12 123 1234 12345	CO2	10

Table 1: Mapping between COs and questions
(Number of COs may vary from course to course)

COs	Questions Numbers	Total Mark
CO1	1a,1b,1c,1d,2a,2b,2c,2d,3a,3b	35
CO2	3c	10