

K. J. Somaiya Institute of Technology, Sion, Mumbai-22
(Autonomous College Affiliated to University of Mumbai)

May-June 2025	
B. Tech Program Scheme III H	
Regular Examination: FY Semester: II	
Date of Exam: 09/06/2025	Course Code: BSC205 and Course Name: Computer Programming Duration: 02.5 Hours Max. Marks: 60

- (1) All questions are compulsory.
(2) Draw neat diagrams wherever applicable.
(3) Assume suitable data, if necessary.

Q. No.	Question	Max. Marks	CO	BT level
Q 1	Solve any two questions out of three: (05 marks each)	10		
a)	Find the output of the following program #include <stdio.h> int main() { int x=0,y=20,res; res=y++ + x++; res +=++y + ++x; printf("\n x=%d y=%d result=%d",x,y,res); return 0;} Analyze the above C program and predict the output with justification.		CO1	An
b)	Explain the different if construct.		CO2	U
c)	What is a Function? Explain Function declaration, calling, and definition with an example of computing the area of a circle.		CO3	U,Ap
Q 2	Solve any two questions out of three: (05 marks each)	10		
a)	Write a program to read and store n integers in an array, where the user decides the value of n. Find the minimum and maximum numbers from the array.		CO4	Ap
b)	Differentiate between Structure and Union.		CO5	An
c)	Explain the result of following code snippet with justification: int num1=2,num2=3; int *p = &num1,*q = &num2; *p++ = *q++ a) What are the values of num1,num2 and *p,*q after this code executes? b) Explain the result with justification, especially focusing on the use of the post-increment operator (p++, q++).		CO6	An
Q.3	Solve any two questions out of three. (10 marks each)	20		
a)	Explain the Logical and Assignment Operators with an example.		CO1	U

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b)	Write a program to display the results of students by using nested if-else.		CO2	Ap
c)	Write a program to sort the numbers of an array in ascending order using a user-defined function.		CO3	Ap
Q.4	Solve any two questions out of three. (10 marks each)	20		
a)	Describe string library function 1)strcat() 2)strlwr() 3)strlen() 4)strcpy() 5)strcmp		CO4	U
b)	Write a program to create a structure for an employee with members like id,name and salary and display them in a sorted order by name.		CO5	Ap
c)	Explain various memory allocation techniques and their methods.		CO6	U
