

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

May 2022-2023

(B.Tech) Program: Basic Science and Humanities: Scheme: II

Examination: FY Semester: II

Course Code: JBSC205 and Course Name: Computer Programming

Date of Exam: 23/6/23

Duration: 2.5 Hours

Max. Marks: 60

Instructions:-

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

		Max. Marks	CO	BT level
Q 1	Solve any six questions out of eight.	12		
i)	Explain with examples the basic Data types in C.	2	CO1	U
ii)	Explain Following a) continue statement b) break statement	2	CO2	U
iii)	What is the difference between function declaration and definition	2	CO3	U
iv)	What do you mean by an array? Explain how an array can be defined? State various ways of array initialization?	2	CO4	U
v)	WAP to count blank spaces, digits, vowels in the string.	2	CO4	C
vi)	Explain Structure of C program.	2	CO5	U
vii)	Explain logical operator in C	2	CO1	U
viii)	Different between Switch statement, if else ladder.	2	CO2	U
Q.2	Solve any four questions out of six.	16		
i)	Explain various Bitwise Operators in C Programming Language.	4	CO1	U
ii)	Write a C Program for Interactive Calculator Using Switch Case Statement	4	CO2	C
iii)	Explain storage class with programming example.	4	CO3	C
iv)	Explain various String Functions in C Programming with suitable examples.	4	CO4	U

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v)	What do you mean by nested structure? Different between Structure & union	4	CO5	U
vi)	Define a structure Employer with following variables (i) Employee code (ii) Employee name (iii) Employee salary (iv) Employee designation. -Write a program to read the structure for 05 employees and display record in sorted order of employee code.	4	CO5	C
Q.3	Solve any two questions out of three.	16		
i)	Explain in brief Ternary Operator. WAP to find the largest of a given 3 numbers using ternary operator.	8	CO1	C
ii)	Write a function which gets one integer as parameter and return factorial of that integer used this function in the main Program to find the value of ${}^n C_r = n! / (n-r)! r!$	8	CO3	C
iii)	Write a complete program to implement a structure to store the details of 50 students and sort and display the information of students in descending order of their percentage. Student details include. i)Roll number ii)Student Name iii)percentage	8	CO5	C
Q.4	Solve any two questions out of three.	16		
i)	What is recursion? Write a program to find value of y using recursive function, where $y=x^n$, x and y are read number and 'n' is an integer.	8	CO3	C
ii)	Explain Nested for loops in C.WAP to check whether a given number is palindrome or not i.e. if no is 12421 it is palindrome.	8	CO2	C
iii)	WAP to find and display the reverse of an array using a function	8	CO4	C