BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: MTECH **SEMESTER : II**
BRANCH: REMOTE SENSING **SESSION : SP/2025**

SUBJECT: RS522-PROGRAMMING CONCEPTS FOR SPATIAL DATA HANDLING

TIME: 3 Hours **FULL MARKS: 50**

INSTRUCTIONS:
1. The question paper contains 5 questions each of 10 marks and total 50 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
***4*. Before attempting the question paper, be sure that you have got the correct question paper.**
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

			CO	BL
Q.1(a)	Discuss the various control flow statements in the C language with a suitable example.	[5]	CO1	L1
Q.1(b)	Define an array. How to declare and initialize a 2D array in C Language.	[5]	CO1	L2
Q.2(a)	What do you understand by objects in R? Describe the role of special values like inf, NA, NaN and NULL in R.	[5]	CO2	L2
Q.2(b)	Write a R program to reverse the order of the given vector.	[5]	CO2	L3
Q.3(a)	Explain the several built-in data types in Python that are used to classify data.	[5]	CO3	L2
Q.3(b)	Write a Python function that takes a number as a parameter and checks whether the number is prime or not.	[5]	CO3	L4
Q.4(a)	Mention different types of conditional statements and loop control statements.	[5]	CO4	L2
Q.4(b)	Write a MATLAB function to compute the factorial n! for any integer n. The input should be the number n, and the output should be n!.	[5]	CO4	L5
Q.5(a)	What are the different JavaScript data? Explain with a suitable example.	[5]	CO4	L2
Q.5(b)	Explain the concept of visualizing images and Image Bands through Google Earth Engine.	[5]	CO5	L4

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