

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

**CLASS: MSc.  
BRANCH: MGI**

**SEMESTER : II  
SESSION : SP/2025**

**SUBJECT: GI518-SPATIAL DATA HANDLING THROUGH PROGRAMMING**

**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.
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	<b>CO</b>	<b>BL</b>
Q.1(a) Explain different data types in R programming with a suitable example.	[5] CO1	L2
Q.1(b) Write an R program to check if a given number is even or Odd.	[5] CO1	L4
Q.2(a) Write the syntax for writing functions in R with a sample program.	[5] CO2	L4
Q.2(b) What do you mean by control statements? Explain any three control statements in R.	[5] CO1	L3
Q.3(a) Discuss some of the most crucial and notable features of Python.	[5] CO3	L2
Q.3(b) Write a Python function that takes a number as a parameter and checks whether the number is prime.	[5] CO3	L4
Q.4(a) Discuss the various built-in data types in the Python programming language.	[5] CO4	L2
Q.4(b) Write a Python program to compute the factorial of a given number.	[5] CO4	L5
Q.5(a) What are the basic JavaScript data types, and explain them?	[5] CO4	L2
Q.5(b) Explain the concept of visualizing images and Image Bands through Google Earth Engine.	[5] CO5	L4

**:::::28/04/2025 E:::::**