

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

**CLASS: BBA  
BRANCH: BBA**

**SEMESTER : VI  
SESSION : SP/2025**

**SUBJECT: MT315 PROGRAMMING TECHNOLOGY**

**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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		CO	BL
Q.1(a)	Explain in detail with figure the Phases of Program Development.	[5]	1 2
Q.1(b)	Write an algorithm and give the corresponding Flow Chart for finding the Sum(S) of the following series: $S = 2+ 6+ 12+ 20 + 30 + \dots$ upto Nth terms	[5]	1 3,4
Q.2(a)	What do you understand by the Paradigms of Programming Languages. Explain any two paradigms you know.	[5]	1,2
Q.2(b)	Languages have been broadly classified as High-Level and Low-Level languages. Explain in what respect one language is at a higher or lower level than the other? What kind of language is Assembly Language? Broadly, show the different stages(only Block Diagram) of assembling an Assembly Language Program.	[5]	2
Q.3(a)	What is a Top-Down Design approach? Explain the features of Top-Down Design with the help of an appropriate problem(case) solution diagrammatically.	[5]	3
Q.3(b)	Explain the following: (i) Structured Programming                      (ii) Event Driven Programming	[5]	2,3
Q.4(a)	Explain the concept of Data Encapsulation and Ploymorphism.	[5]	2,3
Q.4(b)	Distinguish between Procedure Oriented Programming and Object-Oriented Programming.	[5]	1,2
Q.5(a)	Explain the concept of Frontend and Backend development.	[5]	3,4
Q.5(b)	Write short notes on the following: (i) JSP    (ii) Tomcat Apache	[5]	1,2

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