## Institute of Business & Information Technology

# University of the Punjab





Sheet No.	
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# Assignment 04

### Fall Term 2020

# Heap, Hash & Graph Algorithms

Code 1T-466 Degree BBIT

Title Analysis of Algorithm Batch F17-IT Specialization

Due Date: Jan 12, 2021 before 1630hr Marks 105

#### **Instructions:**

- 1. Do not forget to pray before starting to attempt the paper. Trust me it helps.

  Remember! <u>SOMEONE is always with you (Be Relaxed)</u>, and HE is also watching you (Be Honest)
- 2. Question Paper is SELF EXPLANATORY. Understanding the Question Paper is part of Solution.
- 3. Nothing Beyond the Finish Line will be Evaluated. Back Side of Pages is Beyond Finish Line.
- 4. For Calculations etc. Use the back side of the pages.
- Error in Question will be advantageous to Student.
- 6. Read the Questions carefully before attempting.
- 7. Solve your paper using Black/Blue Pen only.
- 8. Attempt All Questions in a Precise Fashion.

Class: IT Specialization

- 9. Switch Off your Cellular Phones.
- 10. Manage Your Time.

Reg. No:

Section:

#### GOOD LUCK

Date: Sunday Jan 03, 2021

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15				105

Signature:

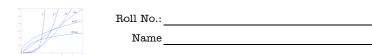
Assistant's Signature	Examiner's Signature



Roll No.:	
Name	

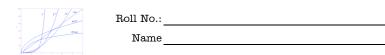
Write down the Algorithms to Sort an Array in Descending Order using Radix Sort Technique.			10+5
		e Complexity of Your Algorithm	
RadixSort(A,	Size)	// Must be able to handle the Negative Numbers	
-			

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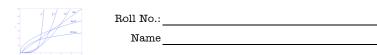
<b>Question No 02.</b> Write the Algorithms to Traverse a Graph G(V, E) using Depth First Search.	10+5	
Compute the Time and Complexity of Your Algorithm		

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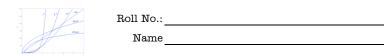
<b>Question No 03.</b> Write the Algorithms to Compute MST of a Graph G(V, E) using Prims Method. Compute the Time and Complexity of Your Algorithm		

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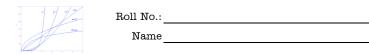
<b>Question No 04.</b> Write the Algorithms to Compute MST of a Graph G(V, E) using Kruskal Method. Compute the Time and Complexity of Your Algorithm		

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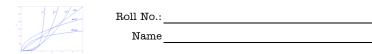
<b>Question No 05.</b> Write the Algorithms to Traverse a Graph G(V, E) using Level Order Traversal. Compute the Time and Complexity of Your Algorithm		

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Question No 06. Write down the Algorithms to Compute the Shortest Path using Dijkastra's Method. Compute the Time and Complexity of Your Algorithm		

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<b>Question No 07.</b> Write down the Algorithms to Compute the Shortest Path using Bellman Ford Method.		
Compute the Time and Complexity of Your Algorithm		
Finish Line		
Nothing beyond this line will be evaluated		

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