

**AHSANULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

Course No: CSE4125

Course Title: Distributed Database Systems

Spring 2019 | Quiz – 4 | Marks 20 | Time: 40 Minutes | Set – B | ID =

	Consider the following relations -																																																														
	<b>R</b>	<b>S</b>	<b>T</b>																																																												
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1.	Complete the following Database Profiles :-			4																																																											
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2.	We want to perform the query <b>Q</b> : (R $\bowtie_{a=q}$ S) CP (T $\bowtie_{x=q}$ S). Draw the optimization graph for the query.			2																																																											
3.	Estimate the cardinality and size of the query of question 2.			6																																																											
4.	Find the total transmission cost of performing (T $\bowtie_{x=q}$ S) at Site <b>3</b> by: (a) using the semi-join program and (b) without using the semi-join program. Which one is the better solution? Semi-join has selectivity $\rho=0.9$			8																																																											