Final Term Paper 2012
CS502 Fundamentals of Algorithms
Dated 16 July 2012 time 2.30 Pm

40 MCQs…. 20 MCQs were from past paper Time 2Hours
12 Questions

Q No.1 **Suppose you could prove that an NP-complete problem can not be solved in polynomial time. What would be the consequence?**

Q No.2 **Let the adjacency list representation of an undirected graph is given below. Explain what general property of the list indicates that the graph has an isolated vertex.**

a → b → c → e
b → a → d
c → a → d → e → f
d → b → c → f
e → a → c → f
f → c → d → e
g

Q No.3 **What are two cases for computing**
Describe Dijkstra's algorithm working?

Q No.4 **The following adjacency matrix represents a graph that consists of four vertices labeled 0, 1, 2 and 3. The entries in the matrix indicate edge weights.**

	0	1	2	3
0	0	1	0	3
1	2	0	4	0
2	0	1	0	1
3	2	0	0	0

Q No.5 **In the solution of edit distance technique, please describe two solution given (i) MATHS (ii) ARTS**

Q No.6 **Variants of shortest path solution briefly?**

Q No.7 **Explain the following two basic cases according to Floyd-Warshall Algorithm,**

Q No.8 **Explain the topological sort?**

Q No.9 **Consider if point pi is dominated by another point pj, we do not need to use pi for eliminating other points. This follows from the fact that dominance relation is transitive. If pj dominates pi and pi dominates ph then pj also dominates ph; pi is not needed.**
(Give the answer YES or NO)

I forget other questions