

**Assignment No. 02**

**SEMESTER Fall 2020**   
**CS702 –Advance Algorithm Analysis and Design**

**Due Date: 21/12/ 2020 Total Marks 50**

**Instructions to Solve Assignments**

The purpose of assignments is to provide you with hands on practice on database design. It is expected that students will solve the assignments themselves. Following rules will apply during the evaluation of assignment.

* Cheating from any source will result in zero marks in the assignment.
* Any student found cheating in any two of the assignments submitted will be awarded "F" grade in the course.
* In case of question No. 03 direct copy and paste from the research paper will be awarded zero marks.
* **No assignment after due date will be accepted.**

**Question # 1 [10 Marks]**

Write the number of orders in which we multiply four numbers a1,a2,a3,a4.

**Question # 2 [20 Marks]**

Given a sequence [A1, A2, A3, A4]

Order of A1 = 10 x 5

Order of A2 = 5 x 20

Order of A3 = 20 x 4

Order of A4 = 4 x 8

Compute the cost table *m* in the dynamic programming algorithm for the chain matrix multiplication.

**Question No.3 [Marks: 20]**

Read the paper entitled as “Research and Practice on Algorithm Analysis and Design Course Teaching Based on Online Judge” available in the zip folder.

a) Give critical analysis of the above paper in your own words.

b) Suggest, any further enhancements for the proposed algorithm in the given , proof your answer with proper/valid reason.