
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR
Algorithmic Game Theory 2020-21: Assignment-5

Deadline: 11:55pm, 15th Nov 2020

Full Marks: 10

Subject No: CS60025

Subject: Algorithmic Game Theory

Department/Center/School: COMPUTER SCIENCE AND ENGINEERING

Answer all the questions.

Consider a scenario with a set of five sellers selling identical items with respective valuations $v_1 = 23$, $v_2 = 15$, $v_3 = 11$, $v_4 = 8$, $v_5 = 2$, and one buyer. The buyer wishes to buy 4 items. Compute VCG payments in each of the following cases.

1. Each seller can supply at most one item.
2. Each seller can sell at most 2 items.

[5 + 5 Marks]