Your company, Bright Paints, is one of a dozen companies manufacturing a special reflective paint used for traffic signs. The State Department of Transportation has called for tenders to supply 10,000 gallons of blue reflective paint to be delivered within two months. You can foresee fitting in a production run of the blue paint and have decided to bid on the job. You calculate your incremental costs for this job to be $76,200. This particular contract is standard, similar in all in respects to hundreds of contracts you have bid on over the past few years. Your pricing policy has been to apply a mark-up to incremental costs to arrive at the bid price. Your mark-up has been higher when you had plenty of orders and lower when you had few or no orders to fulfill. You have assembled data relating the mark-up rate used and the percentage of contracts won at each mark-up rate, as follows.

|  |  |
| --- | --- |
|  Mark-up rate (%) | Percentage of contracts won at that rate (%) |
| 0101520253035 | 95.984.865.441.315.73.00. |

a.       Why would your company have bid with a zero mark-up on some past tenders? Why didn’t it win all of those contracts?

b.      What is the bid price that maximizes the expected contribution of the contract?

c.       Why, or why not, is the fixed-price mode of bidding likely to be the best one to use for this contract?

2.  In calculating the incremental cost of a particular project, how would you treat the possible future costs of a lawsuit that may occur as a result of this project, where the cost of the lawsuit might range from $10,000 to $500,000 with an associated probability distribution?