Code:

```
% Additional Exercise ques-2

A = [ 1 2 0 1;
      0 0 3 1;
      0 3 1 1;
      2 1 2 5;
      1 0 3 2];

cmax = [100; 100; 100; 100; 100];
p = [3; 2; 7; 6];
pdisc = [2; 1; 4; 2];
q = [4; 10; 5; 10];

cvx_begin
   variable x(4)
   maximize(sum(min(p.*x,p.*q+pdisc.*(x-q))))
   subject to
      x >= 0;
      A*x <= cmax
cvx_end

x
r = min(p.*x,p.*q+pdisc.*(x-q))
total = sum(r)
avgPrice = r./x
```

Solutions :

Status: Solved

Optimal value (cvx_optval): +192.5

x =   4.0000

      22.5000

      31.0000

       1.5000

r =   12.0000

      32.5000

     139.0000

       9.0000

```
total =  192.5000

avgPrice =   3.0000

             1.4444

             4.4839

             6.0000
```