TELCO churn

TELCO inc is a phoning company facing a churn problem. They collected a dataset on their past customers and ask you to:
1/ rank their customers according to the probability of churn
2/ tell what are the clients they should contact and what is the maximum discount they should propose in order to prevent them from churning

There is a fixed cost of 10€ to contacting a customer.

The data set contains 2 files:
1/ a training set, including the labels in the column "CHURNED"
2/ a test set with the same columns, but without the labels.

Variable	Explanation
CUSTOMER_ID	A technical unique identifier
COLLEGE	Is the customer college educated?
DATA	Monthly consumption of data (in Mo)
INCOME	Annual income (salary) of the client
OVERCHARGE	Average overcharge per year
LEFTOVER	Average number of lefover minutes per month
HOUSE	Estimated value of dwelling (from census tract)
LESSTHAN600k	Is the House value smaller or higher than 600k?
CHILD	Number of children
JOB_CLASS	Self reported type of job
REVENUE	Annual phone bill (excluding Overcharge)
HANDSET_PRICE	Cost of phone
OVER_15MINS_CALLS_PER_MONTH	Average number of long calls (>15 mins) per month
TIME_CLIENT	Tenure in years
AVERAGE_CALL_DURATION	Average duration of a call
REPORTED_SATISFACTION	Reported level of satisfaction
REPORTED_USAGE_LEVEL	Self reported usage level
CONSIDERING_CHANGE_OF_PLAN	Self reported consideration whether to change operator
CHURNED	Did the customer stay of leave

You are asked to provide a csv file (comma separator) on the test set customers with the following columns:
1/ CUSTOMER_ID
2/ CHURN_PROBABILITY
3/ CHURN_LABEL (either 'LEAVE' or 'STAY')
4/ CLIENT_TO_CONTACT (either 'YES' or 'NO')
5/ DISCOUNT (proposed maximum discount for the customer)

The metric used to validate the model will be the ROC AUC.

Please send back both the csv file and your code.

Thank you!