## Homework 6: Combinatorial Testing

Generate a combinatorial input model for the following system

*EasyBuy.com* is an online shopping website. When a customer is ready to check-out, the amount which he/she has to pay is computed as follows:

- 1. The transaction will be invalid if (1) the things you buy are out of stock, (2) the credit card information provided is incorrect, and (3) the balance on your card is insufficient.
- 2. The two main cancellation policies include:
  - cancellation within the day of the order
  - cancellation after the day of the order
- → Full refund
- → Full refund less a \$20 USD administrative fee
- 3. The three shipping policies include:
  - For an order over \$100
    - In-state shipping fee
    - Interstate shipping fee
- → Free → 50% off
- For an order over \$200
  - Domestic shipping fee
  - International shipping fee
- For an order over \$500
  - Domestic shipping fee
  - International shipping fee
- **→** Free **→** 50% off
- → Free → Free

- 4. Shipping method:
  - For domestic shipping
    - 1-day delivery
    - 2-day delivery
    - 1-week delivery
  - For international shipping
    - 1-week delivery
- 5. Special offers:
  - Buy-one-get-one on Labor Day, Thanksgiving, and Christmas
  - 20% off on Valentine's Day, Easter, and Memorial Day

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• Please use the following table to write down your input model.

Factors	Possible Values				
<i>F</i> <sub>1</sub> :					
F <sub>2</sub> :					
<i>F</i> <sub>3</sub> :					
F4:					
<i>F</i> <sub>5</sub> :					
F <sub>6</sub> :					
<i>F</i> 7:					
F8:					

• Do we need constraints for test case generation? Why?