Problem Set 2

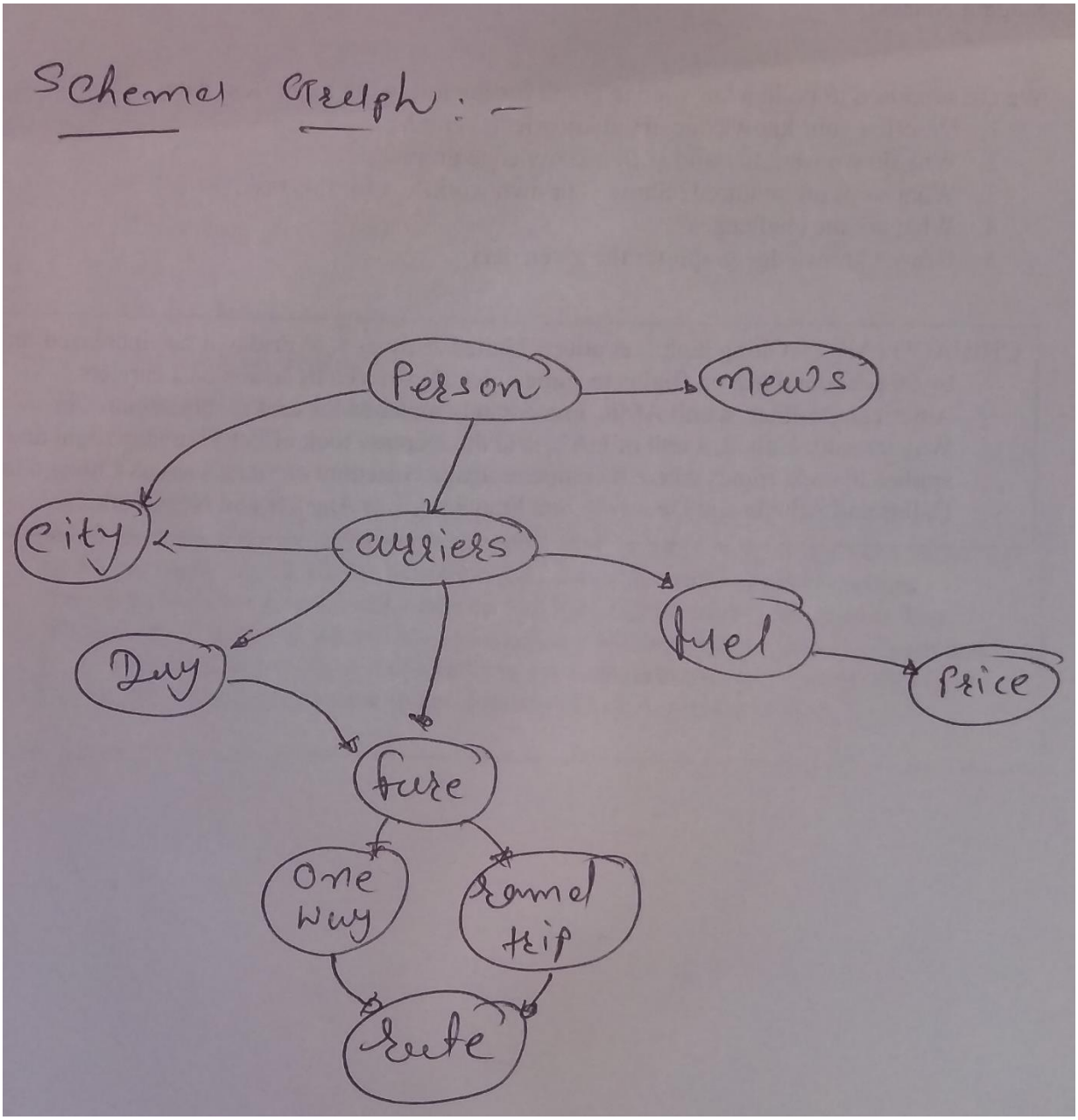
Knowledge Discovery and Management

Class Id: 21

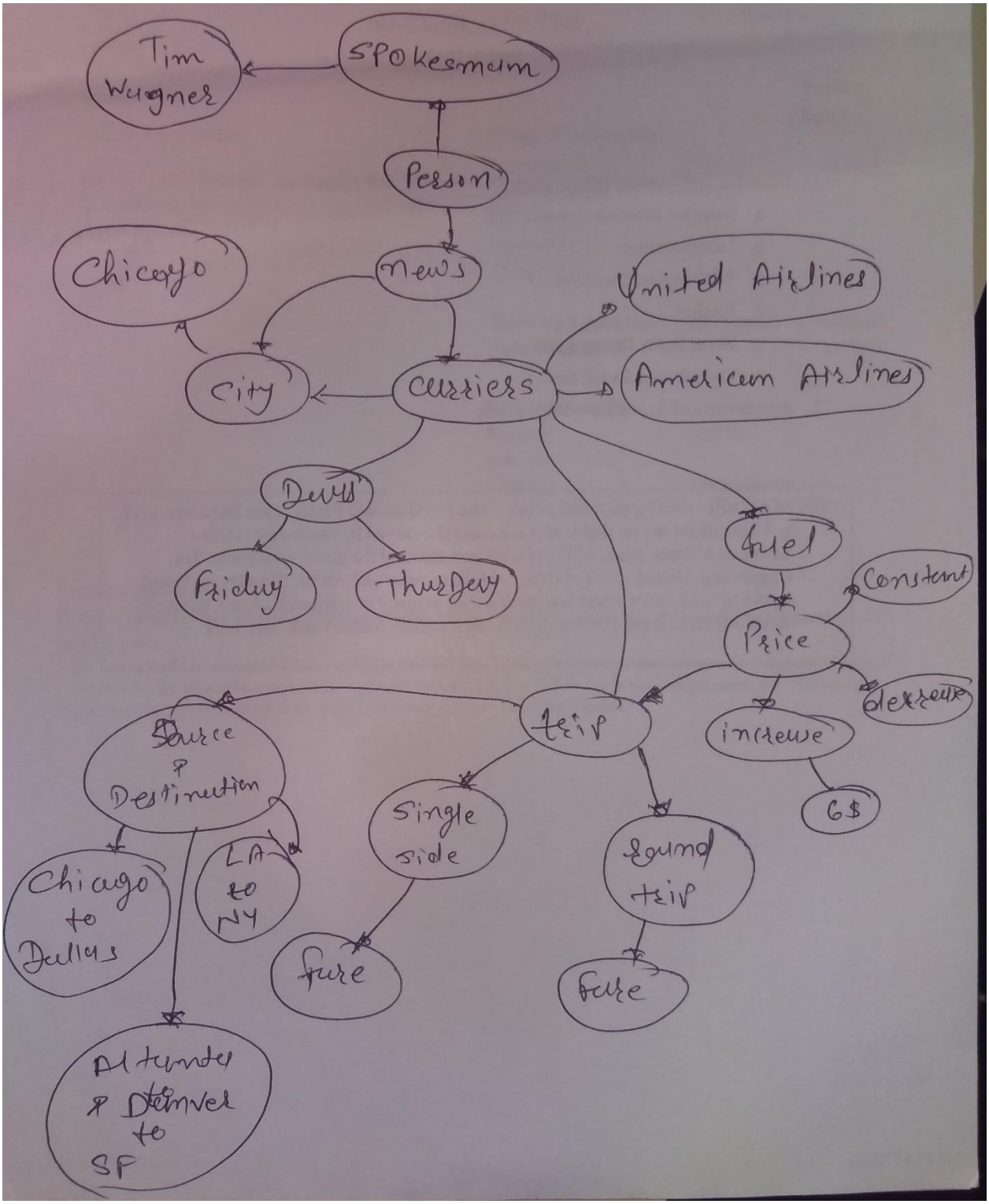
Name: Shalin Patel

PS-2A

Ans 1:



Datagraph


Tim Wagner
Spokesman
Person
Chicago
News
United Airlines
City
Carriers
American Airlines
Days
Friday
Thursday
fuel
Constant
Price
decrease
increase
trip
Source & Destination
Single side
Round trip
6$
Chicago to Dallas
LA to NY
fare
fare
Atlanta & Denver to SF

Question and Ans Template:

1. What:

   What +verb+ noun -> Ans: Noun + verb + ans

   Que: What was increment in rate?

   Ans: Increment in rate was $6.

2. When:

   When + noun+ verb? -> From + ans

   Que: When increase in rate will apply?

   Ans: From Thursday midnight.

3. Where:

   Where + verb + noun -> Noun+ from +Ans

   Que: Where is the news from?

   Ans : The news is from Chicago.

4. Who:

   Who + verb + noun -> Ans+ verb + noun

   Que: Who was the spokesman?

   Ans: Tim Wanger was the spokeperson.

5. How:

   How + verb + noun + adjective -> By + verb + ans

   Que: How rise in price will compensate?

   Ans: By increasing in fare of 6$

6. How many:

   How many + noun + verb -> Ans + verb

   Que: How many airlines were mentioned?

   Ans: Two airlines were mentioned.

7. Yes/No:

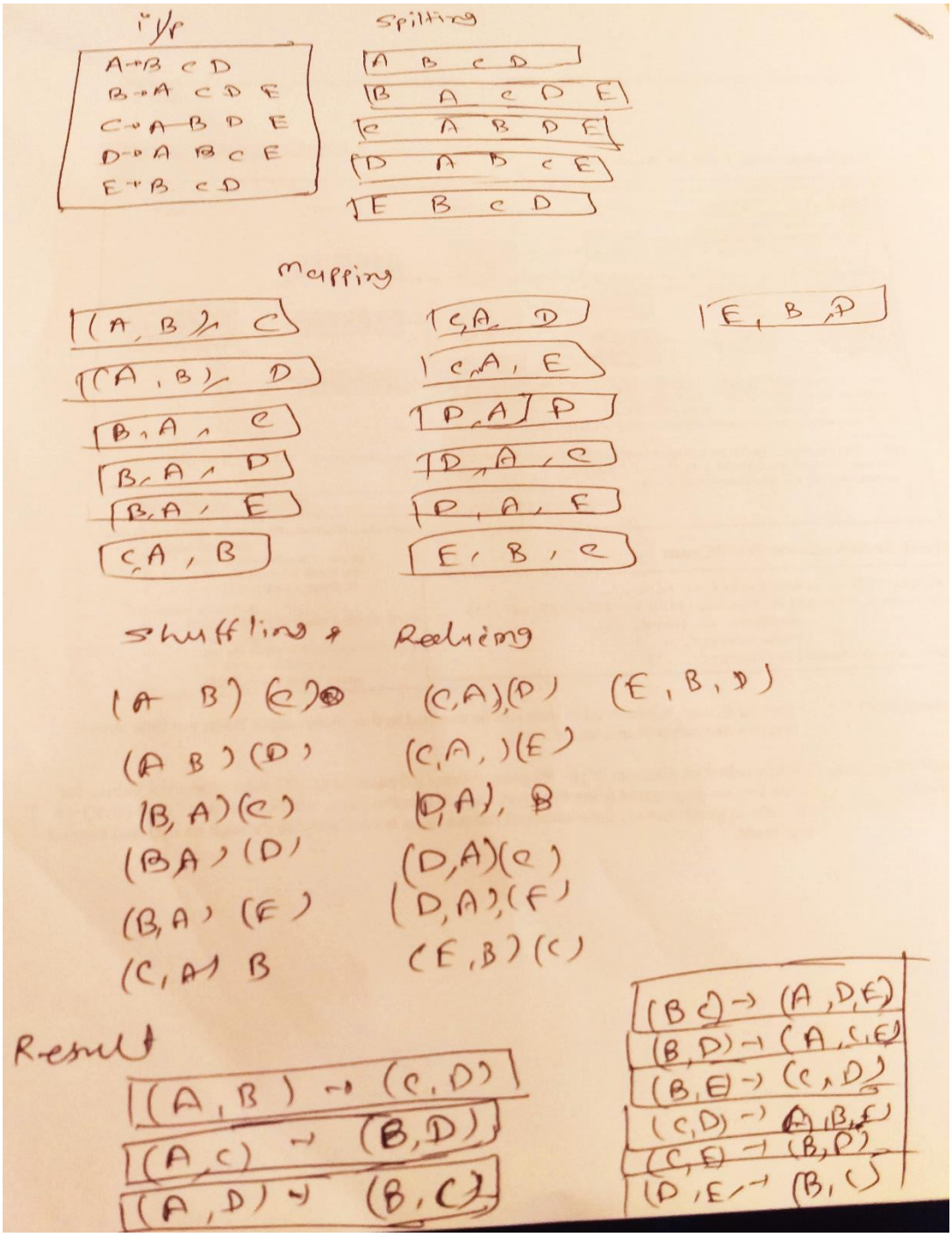
   Question -> If words matches, Yes otherwise No

   Que: Rate change affected immediately?

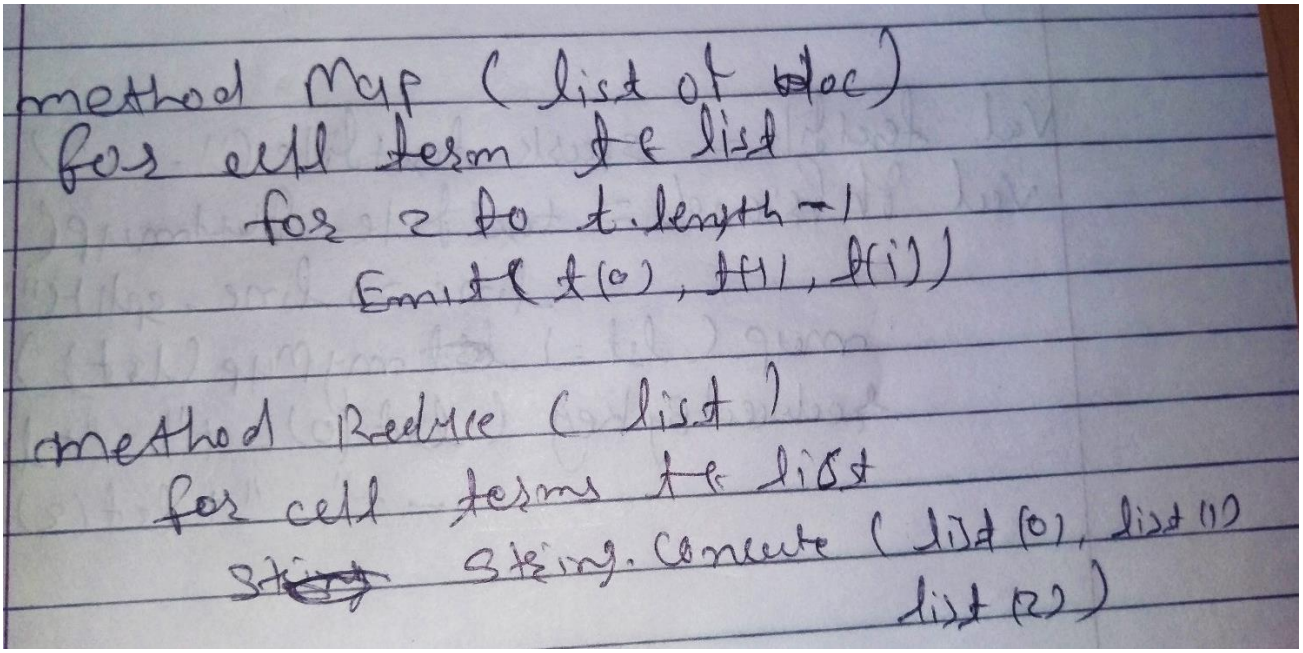
   Ans: No

PS – 2B

Ans 1:


i/p
A→B C D
B→A C D E
C→A B D E
D→A B C E
E→B C D
Spilling
A B C D
B A C D E
C A B D E
D A B C E
E B C D
Mapping
(A, B) C
(A, B) D
B, A, C
B, A, D
B, A, E
C, A, B
C, A, D
C, A, E
D, A, B
D, A, C
D, A, E
E, B, C
E, B, D
shuffling & Reducing
(A B) (C)
(A B) (D)
(B, A) (C)
(B A) (D)
(B, A) (E)
(C, A) B
(C, A), (D)
(C, A,) (E)
(D, A), B
(D, A) (C)
(D, A) (E)
(E, B) (C)
(E, B, D)
Result
(A, B) → (C, D)
(A, C) → (B, D)
(A, D) → (B, C)
(B C) → (A, D, E)
(B, D) → (A, C, E)
(B, E) → (C, D)
(C, D) → (A, B, E)
(C, E) → (B, D)
(D, E) → (B, C)

Ans 2: Algorithm



Ans 3: Map Reduce Function