

Q-2 (A)

Round:- 1

1. Victor Proposes to Bertha, Bertha is Free, they are Engaged
2. Wyatt proposes to Diane, Diane is Free, they get engaged.
3. Xavier Proposes to Amy, Amy is Free, so they get Engaged.
4. Yancey Proposes to Amy, Amy is Already Engaged, Rejected
5. Zeus Proposes to Bertha, Bertha is Already Engaged, Rejected

After Round 1

Victor → Bertha

Wyatt → Diane

Xavier → Amy

Yancey → X

Zeus → X

Round:- 2

Yancey Proposes to Erika, Erika is Free, so they get Engaged

Zeus Proposes Amy, Amy is Already Engaged, Rejected

After Round 2

Yancey → Erika

Zeus → X

Round:- 3

Zeus Proposes Erika, Erika is Engaged, Rejected

After Round 3

zeus → X

## Round:-4

Zeus Proposes to Clare, Clare is free, so they get Engaged

After Round 4 Final Matches (Men Proposing)

Man	Match
Victor	Beatha
Wyatt	Diane
Xavier	Amy
Yancey	Erika
Zeus	Clare

Checking For unstable Pair

Victor  $\rightarrow$  Beatha, No unstable Pair (Beatha prefers Victor over others)

Wyatt  $\rightarrow$  Diane, No unstable Pair

Xavier  $\rightarrow$  Amy, No unstable Pair

Yancey  $\rightarrow$  Erika, No unstable Pair

Zeus  $\rightarrow$  Clare, No unstable Pair.

$\therefore$ , There are No unstable Matches in the Final Matches.

## Q-2(B) Women Proposing

Steps:-

Round:-1

Amy Proposes to Xavier, Xavier is Free, they get Engaged

Bertha proposes to Xavier, Xavier Rejects her

Clare Proposes to Yancey, Yancey is Free, they get Engaged

Diane Proposes to Victor, Victor is free, they get Engaged

Erika proposes to Xavier, Xavier Rejects her

Round:-2

Bertha proposes to Wyatt, Wyatt is free, they get Engaged

Erika Propose to Wyatt, get's Rejected

Round:-3

Erika Proposes to Zeus, Zeus is Free they get Engaged

Final Matches (women Proposing)

woman	Match
Amy	Xavier
Bertha	Wyatt
Clare	Yancey
Diane	Victor
Erika	Zeus

the Final Matches are different  
when women proposes but in both  
Cases no unstable Pairs.

$\therefore$  there are no unstable pairs in the final Matches