

* নিম্নলিখিত ক্রটিগুলির আশ্রয়িতা-বিবেচনা দ্বারা কর :

- Ⓐ 1. BOR
 2. NSO (TOU)
 3. SY (SVT)
 4. NS /∴ RVU

- Ⓑ 1. (QVNR) VS
 2. NSV (R. NS) /∴ ROS

- Ⓒ 1. (MNVN) O (O.P)
 2. NO /∴ NM

- Ⓓ 1. (FOI), (GOI)
 2. JOK
 3. (FVJ), (HVH) /∴ GVK

- a)
1. $Q \supset R$
 2. $\sim S \supset (T \supset U)$
 3. $S \vee (Q \vee T)$
 4. $\sim S \therefore R \vee U$
 6. $Q \vee T$ — 3, 4 D.S
 7. $T \supset U$ — 2, 4 MP
 8. $(Q \supset R) \cdot (T \supset U)$ — 1, 7 Conj
 9. $R \vee U$ — 8, 6 C.D

- b)
1. $(Q \cup R) \cup S$
 2. $Q \cup (R \cap S) \quad /: \quad R \supset S$
 3. $(Q \cup R) \cap (S \cup Q) \quad \text{---} \quad [2 \text{ Dist}]$
 4. $(Q \cup R) \cap Q \quad \text{---} \quad [3 \text{ Taut}]$
 5. $Q \cap (Q \cup R) \quad \text{---} \quad [4 \text{ Comb}]$
 6. $Q \quad \text{---} \quad [5 \text{ Simp}]$
 7. $Q \cup (R \cup S) \quad \text{---} \quad [1 \text{ Assoc}]$
 8. $(R \cup S) \quad \text{---} \quad [7, 6 \text{ D.S}]$
 9. $R \cup S \quad \text{---} \quad [8 \text{ Impi}]$

c) 1. $(M \vee N) \supset (O \cdot P)$

2. $\sim O \quad \therefore \sim M$

3. $(\sim O \vee \sim P) \text{ --- 2 add}$

4. $\sim (O \cdot P) \text{ --- 3 Dem}$

5. $\sim (M \vee N) \text{ --- 1, 4, MT}$

6. $\sim M \cdot \sim N \text{ --- 5 Dem}$

7. $\sim M \text{ --- 6 Simp}$

d) 1. $(F \supset G) \cdot (G \supset I)$

2. $\exists \supset K$

3. $(F \vee \exists) \cdot (H \vee L) \quad \therefore G \vee K$

4. $F \supset G \text{ --- 1 Simp}$

5. $(F \supset G) \cdot (\exists \supset K) \text{ --- 4, 2, conj}$

6. $F \vee \exists \text{ --- 3 Simp}$

7. $G \vee K \text{ --- 5, 6 c.d}$