Ejercicio 1

- A (<u>a1</u>, a2) - B (<u>b1</u>, b2) - C (<u>c1</u>, c2, cC, cD)

CP: a1 CP: b1 CP: c1

CAlt: cD

CAj: cC→ C (VNN)

CAj: cD→ D

- R1 (rA, \underline{rB} , \underline{rC}) - D ($\underline{d1}$, $\underline{d2}$) - E ($\underline{e1}$, $\underline{e2}$) -R4 (\underline{rD} , \underline{rE}) CP: (rB, rC) CP: $\underline{d1}$ CP: $\underline{e1}$ CP: (rD, rE)

CAj: rA \rightarrow A (VNN)

CAj: rB \rightarrow B

CAj: rE \rightarrow E

CAj: rC→ C

- $F(\underline{f1}, f2)$ - $H(\underline{hE})$ - $G(g1, \underline{gE})$ - $R5(\underline{rE}, \underline{rF}, rG)$ CP: f1 CP: hE CP: gE CP: (rE, rF)

CAj: $hE \rightarrow E$ CAj: $gE \rightarrow E$ CAlt: (rE, rG)

CAlt: (rF, rG) CAj: rE \rightarrow E CAj: rF \rightarrow F CAj: rG \rightarrow G

Ejercicio 2

- A (<u>a1</u>, a2) - B (<u>b1</u>, b2, bA) - C (<u>c1</u>, c2) - E (<u>e1</u>,e2) CP: a1 CP: b1 CP: c1 CP: e1

> CAlt: bA CAj: bA→ A

- R5 (<u>rE, rB, rC</u>) - D (<u>d1</u>, d2, <u>dA</u>) - R1 (<u>rA1, rA2</u>)

CP: (rE, rB, rC) CP: (d1, dA) CP: (rA1, rA2) CAj: rE \rightarrow E CAj: dA \rightarrow A CAj: rA1 \rightarrow A CAj: rA2 \rightarrow A

CAj: rC→ C

- F (<u>f1</u>, f2,fD1, fD2)

CP: f1

CAj: (fD1, fD2) \rightarrow D (VNN)

Ejercicio 3

- A (a1, a2, aE) - B (<u>b1</u>, b2, bA1,bA2) - C (<u>c1</u>, cB) CP: (a1, aE) CP: b1 CP: cB CAj: aE→ E CAj: $(bA1,bA2) \rightarrow A (VNN)$ CAj: cB→ B

- G (g1, g2, gC) - H (<u>h1</u>, h2, i1, i2) - D (<u>dB</u>)

CP: dB CP: (g1, gC) CP: h1 CAj: $dB \rightarrow B$ $CAi: gC \rightarrow C$ CAlt: i1

- R5 (rG1,rG2, rH) - E (e1,e2) - R3 (rD,rF, rE, r) CP: e1 CP: (rG1, rG2, rH) CP: (rF, rE) CAj: (rG1, rG2)→G CAlt: (rD, rE) CAj: rH→ H CAj: rD→ D CAj: $rF \rightarrow F$

CAj: $rE \rightarrow E$

- F (<u>f1</u>, f2) CP: f1

Ejercicio 4

- R4 (c1, <u>cA</u>, dA) A (<u>a1</u>, a2) - B (<u>b1</u>, b2, <u>bK</u>) CP: a1 CP: (b1, bK) CP: cA

CAj: bK→ K CAlt: dA

> CAj: $cA \rightarrow A$ CAj: $dA \rightarrow A$

- R1 (<u>rA, rB1, rB2)</u> - I (<u>i1</u>, i2) - E (<u>e1</u>,eA) CP: i1 CP: (rA, rB1, rB2) CP: eA

CAj: $rA \rightarrow A$ CAj: $eA \rightarrow A$

CAj: (rB1, rB2)→ B

F (fB1, fB2) - H (<u>h1,</u> h2, hG, hH) - K (<u>k1</u>, k2) CP: (fB1, fB2) CP: h1 CP: k1

CAj: $(fB1, fB2) \rightarrow B$ CAj: hG→ G

CAlt: hH CAj: hH→ H

-R5 (<u>rE, rl,</u> rF1, rF2) - G (<u>gB1, gB2</u>, gJ) - J(<u>i1</u>, j2) CP: (rE, rI) CP: (gB1, gB2) CP: j1

CAj: $rE \rightarrow E$ CAj: $(gB1, gB2) \rightarrow B$ $CAj: rl \rightarrow l$ CAj: $gJ \rightarrow J$ (VNN)

CAj: $(rF1, rF2) \rightarrow F (VNN)$

Ejercicio 5

- A (<u>a1</u>, a2, aA, aD) - B (<u>b1</u>, b2) - C (<u>c1</u>, c2,cB) CP: a1 CP: b1 CP: c1

CAj: aA→ A (VNN)

CAj: cB→ B

CAlt: aD CAj: aD→ D

- D (\underline{dC}) - G ($\underline{g1}$, $\underline{g2}$) - R2 (\underline{rA} , \underline{rB}) CP: \underline{dC} CP: $\underline{g1}$ CP: (\underline{rA} , \underline{rB}) CAj: $\underline{rA} \rightarrow A$ CAj: $\underline{rB} \rightarrow B$

- R6 ($\underline{\mathsf{rF1}}, \underline{\mathsf{rF2}}, \underline{\mathsf{rG}}, \underline{\mathsf{rD}}$) - E ($\underline{\mathsf{eC}}, \underline{\mathsf{e1}}$) - F ($\underline{\mathsf{f1}}, \underline{\mathsf{f2}}, \underline{\mathsf{fA}}$)
CP: ($\underline{\mathsf{rF1}}, \underline{\mathsf{rf2}}, \underline{\mathsf{rG}}$) CP: eC CP: ($\underline{\mathsf{f1}}, \underline{\mathsf{fA}}$)
CAj: ($\underline{\mathsf{rF1}}, \underline{\mathsf{rF2}}$) \rightarrow F CAj: eC \rightarrow C CAj: fA \rightarrow A

CAj: rG→G

CAj: rD→D (VNN)

Ejercicio 6

- A (<u>a1</u>, a2) - B (<u>b1</u>, b2) - C (<u>c1</u>, c2, <u>cF</u>) CP: a1 CP: b1 CP: (c1,cF) CAj: cF→ F

- D (d1, dB) - E (e1,eB) -R2 (rD, rE) CP: dB CP: eB CP: (rD, rE) CAj: dB \rightarrow B CAj: eB \rightarrow B CAj: rD \rightarrow D CAj: rE \rightarrow E

- F (<u>f1</u>, f2, fH) - H (<u>h1</u>, h2) - G (<u>g1</u>, g2, gG) CP: f1 CP: h1 CP: g1 CAj: fH→ H (VNN) CAlt: gG CAj: gG→ G

- R4 (<u>rC1, rC2, rG</u>) - I (<u>i1, i2</u>) - R1 (<u>rA, rB, rC1, rC2</u>) CP: (rC1, rC2, rG) CP: i1 CP: (rA, rB, rC1, rC2)

CAj: $(rC1, rC2) \rightarrow C$ CAj: $rA \rightarrow A$ CAj: $rB \rightarrow B$

CAj: $(rC1, rC2) \rightarrow C$

R7 <u>(rF, rH</u>, rI)

CP: (rF, rH)
CAlt: (rF, rl)
CAlt: (rH, rl)

CAj: rF → F

CAj: rH→ H CAj: rI→I