1a)   i   {1}   (1)   (∃x)(y)[Fxy ∧ (∃z)Gzx]   P
            {2}   (2)   (x)(y)(z){(Gxy ∧ Fyz) → Gxz]   P
            {3}   (3)   (x)(y)(Gxy → Gyx)   P
        j   {4}   (4)   (y)[(Fay ∧ (∃z)Gza]   P (for ES)
            {4}   (5)   Fab ∧ (∃z)Gza   4 US
        I   {4}   (6)   (∃z)Gza   5 T
        J   {7}   (7)   Gca   P (for ES)
            {4,7}   (8)   Gca ∧ Fab   5,7 T
            {2}   (9)   (Gca ∧ Fab) → Gcb   2 US[3]
            {2,4,7}   (10) Gcb   8,9 T
            {3}   (11) Gcb → Gbc   3, US[2]
            {2,3,4,7} (12) Gbc   10, 11 T
            {2,3,4,7} (13) (y)Gyc   12 UG
        K   {2,3,4,7} (14) (∃x)(y)Gyx   13 EG
        k   {2,3,4}   (15) (∃x)(y)Gyx   6,7,14 ES
            {1,2,3}   (16) (∃x)(y)Gyx   1,4,15 ES

1b)   (∃x)(y)Fyx is NOT a consequence:

        D: {0,1}
        G: {<0,1>, <1,0>, <0,0>, <1,1>}
        F: {<0,1>,<0,0>}

1c) i {1}   (1)   (∃x)(y)[Fxy ∧ (∃z)Gzx]   P
        {2} (2)   (x)(y)(z){(Gxy ∧ Fyz) → Gxz]   P
        {3} (3)   (x)(y)(Gxy → Gyz)   P
        {4} (4)   (x)(y)(Fxy → Fyx)   P (for C)
     j {5} (5)   (y)[(Fay ∧ (∃z)Gza]   P (for ES)
        {5} (6)   Fab ∧ (∃z)Gza   4 US
I   {5} (7)   (∃z)Gza   5 T
J   {8} (8)   Gca   P (for ES)
        {5,8}   (9)   Gca ∧ Fab   6,8 T
        {2} (10)   (Gca ∧ Fab) → Gcb   2 US³
        {2,5,8}   (11)   Gcb   9,10 T

        {3} (12)   Gcb → Gbc   3, US²
        {2,3,5,8}   (13)   Gbc   11, 12 T
        {5} (14)   Fac ∧ (∃z)Gza   5 US

        {4} (15)   Fac → Fca   4 US²
        {4,5}   (16)   Fca   14,15 T
        {2} (17)   (Gbc ∧ Fca) → Gba   2 US3

        {2,3,4,5,8}   (18)   Gba   13,16,17 T
        {5} (19)   Fad ∧ (∃z)Gza   5 US
        {2,3,4,5,8}   (20)   Gba ∧ Fad   18,19 T
        {2} (21)   (Gba ∧ Fad) → Gbd   2 US3

     K {2,3,4,5,8}   (22)   Gbd   20,21 T
     k {2,3,4,5}   (23)   Gbd   7,8,22 ES
        {1,2,3,4}   (24)   Gbd   1,5,23 ES
        {1,2,3,4}   (25)   (y)Gby   24 UG
        {1,2,3,4}   (26)   (x)(y)Gxy   25 UG
        {1,2,3}   (27)   (x)(y)(Fxy → Fyx) → (x)(y)Gxy   4,26 C

2)   (a) Valid
              {1}   (1)   Fa   P (for C)
              {1}   (2)   Ga ∨ Fa   1 T
              {1}   (3)   (∃y)(Gy ∨ Fy)   2 EI
              Λ   (4)   Fa → (∃y)(Gy ∨ Fy)   1,3 C
              Λ   (5)   (x)[Fx → (∃y)(Gy ∨ Fy)]   4 UI

       (b)   Inconsistent
          i {1}   (1)   (∃x)(y)(Fxy ↔ –Fyy)   P (for RAA)
          j {2}   (2)   (y)(Fay ↔ –Fyy)   P (for EE)
             {2}   (3)   (Faa ↔ –Faa)   2 UE
          k {2}   (4)   P ∧ –P   3 T
             {1}   (5)   P ∧ –P   1,2,4 EE
             Λ   (6)   –(∃x)(y)(Fxy ↔ –Fyy)   1 5 RAA

(c) Neither

Here is an interpretation in which it is true:
   D={o}   F: {o}   G: {o}
Here is one in which it is false:
   D = {o}   F: {o}   G: Λ