**Problema 9.1.23**

Demonstraţi inconsistenţa următoarelor mulţimi de clauze folosind rezoluţia blocării. Alegeţi două indexări diferite pentru literalii din clauze.

5. {p Ú Øq,Øp Ú Øq Ú r,Øp Ú q Ú r, p Ú q,Ør} ;

**Prima indexare:**

S={(1)p Ú (2) Øq, (3)Øp **Ú** (4)Øq **Ú** (5)r, (6)Øp **Ú** (7)q **Ú**(8) r, (9)p **Ú** (10)q, (11)Ør }

C1 = (1)**p** Ú (2) Øq

C2 = (3)**Øp** Ú (4)Øq Ú (5)r

C3 = (6)**Øp** Ú (7)q Ú(8) r

C4 = (9)**p** Ú (10)q

C5 = (11)**Ør**

C6 = Res *p lock* (C1, C2) =(2)**Øq** Ú (5)r

C7 = Res *p lock* (C3, C4) = (7)**q** Ú(8) r

C8 = Res *q lock* (C6, C7) = (5)**r**

C9 = Res *r lock* (C5, C8) = ÿ Din TCC => S este inconsistent

**A doua indexare:**

S={(2)p Ú (1) Øq, (4)Øp **Ú** (5)Øq **Ú** (3)r, (8)Øp **Ú** (7)q **Ú**(6) r, (9)p **Ú** (10)q, (11)Ør }

C1 = (1) **Øq** Ú (2)p

C2 =(3)**r** Ú (4)Øp Ú (5)Øq

C3 = (6) **r** Ú (7)q Ú (8)Øp

C4 = (9)**p** Ú (10)q

C5 = (11)**Ør**

C6 = Res *r lock* (C2, C5) = (4)**Øp** Ú (5)Øq

C7 = Res *r lock* (C3, C5) = (7)**q** Ú (8)Øp

C8 = Res *q lock* (C1, C7) = (2)**p** Ú (8)Øp

C9 = Res *p lock* (C4, C6) = (5)**Øq** Ú (10)q

C10 = Res *p lock* (C6, C8) = (5)**Øq** Ú (8)Øp

C11= Res *q lock* (C7, C10) = (8)**Øp**

C12 = Res *p lock* (C4, C11) = (10)**q**

C13 = Res *q lock* (C1, C12) = (2)**p**

C14 = Res *p lock* (C11, C13) = ÿ Din TCC => S este inconsistent