計算数学特論 レポート課題3 機械知能工学専攻 16344217 津上 祐典

(1)
$$\tau_1: [P,1] => [S,1]$$

$$minsup(\tau_1) = 0$$
, $maxsup(\tau_1) = 0$

(2)
$$\tau_2 : [P,1] => [S,2]$$

$$minsup(\tau_2) = 0$$
, $maxsup(\tau_2) = \frac{1}{5}$, $INACC = \{3\}$, $maxacc(\tau_2) = \frac{1}{2}$

(3)
$$\tau_3: [P,1] => [S,3]$$

$$\begin{aligned} minsup(\tau_3) &= \frac{1}{5} \;,\; INACC = \{3\} \;,\; minacc(\tau_3) &= \frac{1}{2} \\ maxsup(\tau_3) &= \frac{1}{5} \;,\; INACC = \{\} \;,\; maxacc(\tau_3) &= 1 \end{aligned}$$

(4)
$$\tau_4: [P,2] => [S,1]$$

$$minsup(\tau_4) = 0$$
, $maxsup(\tau_4) = \frac{2}{5}$, $INACC = \{3\}$, $maxacc(\tau_4) = 1$

(5)
$$\tau_5: [P,2] => [S,2]$$

$$minsup(\tau_5) = 0$$
, $maxsup(\tau_5) = \frac{1}{5}$, $INACC = \{3\}$, $maxacc(\tau_5) = \frac{1}{2}$

(6)
$$\tau_6: [P,2] => [S,3]$$

$$minsup(\tau_6) = 0$$
, $maxsup(\tau_6) = \frac{1}{5}$, $INACC = \{\}$, $maxacc(\tau_6) = 1$

(7)
$$\tau_7: [P,3] => [S,1]$$

$$minsup(\tau_7) = 0$$
, $maxsup(\tau_7) = \frac{1}{5}$, $INACC = \{\}$, $maxacc(\tau_7) = \frac{1}{2}$

(8)
$$\tau_8: [P,3] => [S,2]$$

$$minsup(\tau_8) = 0$$
, $maxsup(\tau_8) = \frac{1}{5}$, $INACC = \{\}$, $maxacc(\tau_8) = \frac{1}{2}$

(9)
$$\tau_9: [P,3] => [S,3]$$

$$\begin{aligned} \mathit{minsup}(\tau_9) &= \frac{1}{5} \;,\; \mathit{OUTACC} = \{\} \;,\; \mathit{minacc}(\tau_9) = \frac{1}{2} \\ \mathit{maxsup}(\tau_9) &= \frac{1}{5} \;,\; \mathit{INACC} = \{\} \;,\; \mathit{maxacc}(\tau_9) = \frac{1}{2} \end{aligned}$$

(10)
$$\tau_{10}: [Q,1] => [S,1]$$

$$minsup(\tau_{10}) = 0$$
, $maxsup(\tau_{10}) = \frac{1}{5}$, $INACC = \{\}$, $maxacc(\tau_{10}) = 1$

(11)
$$\tau_{11}: [Q, 1] => [S, 2]$$

$$minsup(\tau_{11}) = 0 , maxsup(\tau_{11}) = \frac{1}{5} , INACC = \{\} , maxacc(\tau_{11}) = 1 \}$$

(12)
$$\tau_{12}: [Q, 1] => [S, 3]$$

$$minsup(\tau_{12}) = 0 , maxsup(\tau_{12}) = \frac{1}{5} , INACC = \{1\} , maxacc(\tau_{12}) = \frac{1}{2}$$

(13)
$$\tau_{13}: [Q, 2] => [S, 1]$$

$$minsup(\tau_{13}) = 0 , maxsup(\tau_{13}) = \frac{2}{5} , INACC = \{2\} , maxacc(\tau_{13}) = 1$$

(14)
$$\tau_{14}: [Q, 2] => [S, 2]$$

$$minsup(\tau_{14}) = 0 , maxsup(\tau_{14}) = \frac{1}{5} , INACC = \{\} , maxacc(\tau_{14}) = 1$$

(15)
$$\tau_{15}: [Q, 2] => [S, 3]$$

$$minsup(\tau_{15}) = 0 , maxsup(\tau_{15}) = \frac{1}{5} , INACC = \{2\} , maxacc(\tau_{15}) = \frac{1}{2}$$

(16)
$$\tau_{16}: [Q, 3] => [S, 1]$$

 $minsup(\tau_{16}) = 0 , maxsup(\tau_{16}) = \frac{1}{5} , INACC = \{2\} , maxacc(\tau_{16}) = \frac{1}{2}$

(17)
$$\tau_{17}: [Q,3] => [S,2]$$

$$minsup(\tau_{17}) = 0$$
, $maxsup(\tau_{17}) = 0$

(18)
$$\tau_{18}: [Q, 3] => [S, 3]$$

$$minsup(\tau_{18}) = \frac{1}{5} , OUTACC = \{2\} , minacc(\tau_{18}) = \frac{1}{2}$$

$$maxsup(\tau_{18}) = \frac{3}{5} , INACC = \{1, 2\} , maxacc(\tau_{18}) = 1$$

(19)
$$\tau_{19}: [R, 1] => [S, 1]$$

 $minsup(\tau_{19}) = 0$, $maxsup(\tau_{19}) = \frac{1}{5}$, $INACC = \{2\}$, $maxacc(\tau_{19}) = 1$

(20)
$$\tau_{20}: [R,1] => [S,2]$$

$$minsup(\tau_{20}) = 0 , maxsup(\tau_{20}) = 0$$

(21)
$$\tau_{21}: [R, 1] => [S, 3]$$

$$minsup(\tau_{21}) = 0 , maxsup(\tau_{21}) = \frac{1}{5} , INACC = \{2\} , maxacc(\tau_{21}) = 1$$

(22)
$$\tau_{22}: [R,2] => [S,1]$$

$$\mathit{minsup}(\tau_{22}) = 0 \ , \ \mathit{maxsup}(\tau_{22}) = 0$$

(23)
$$\tau_{23}: [R,2] => [S,2]$$

$$minsup(\tau_{23}) = 0$$
, $maxsup(\tau_{23}) = 0$

(24)
$$\tau_{24}: [R,2] => [S,3]$$

$$minsup(\tau_{24}) = \frac{1}{5}$$
, $OUTACC = \{\}$, $maxsup(\tau_{24}) = 1$

(25)
$$\tau_{25}: [R,3] => [S,1]$$

$$minsup(\tau_{25}) = 0$$
, $maxsup(\tau_{25}) = \frac{3}{5}$, $INACC = \{2\}$, $maxacc(\tau_{25}) = 1$

(26)
$$\tau_{26}: [R,3] => [S,2]$$

$$minsup(\tau_{26}) = 0$$
, $maxsup(\tau_{26}) = \frac{2}{5}$, $INACC = \{\}$, $maxacc(\tau_{26}) = 1$

(27)
$$\tau_{27}: [R,3] => [S,3]$$

$$minsup(au_{27})=0$$
 , $maxsup(au_{27})=rac{2}{5}$, $INACC=\{2,4\}$, $maxacc(au_{27})=rac{1}{2}$ 以上より, $support\geq 0.2$, $accuracy\geq 0.8$ を満たす Possible rule は,

$$[P,1] => [S,3]$$
, $[P,2] => [S,1]$, $[P,2] => [S,3]$, $[Q,1] => [S,1]$, $[Q,1] => [S,2]$

$$[Q,2] => [S,1]$$
, $[Q,2] => [S,2]$, $[Q,3] => [S,3]$, $[R,1] => [S,1]$, $[R,1] => [S,3]$

$$[R, 2] => [S, 3], [R, 3] => [S, 1], [R, 3] => [S, 2]$$

であり、Certain ruleは,

$$[R, 2] => [S, 3]$$

である.