algorithm deferred acceptance (M_1,M_2,\dots,M_n) : sequence of n lengthed sequences where i=2 to n is a preference list, i=1 is the subject; W_1,W_2,\dots,W_n : sequence of n lengthed sequences where i=2 to n is a preference list, i=1 is the subject)

```
\begin{array}{l} C,P,i=(),\emptyset,0\\ \text{while } i\neq n\\ \forall_{1\leq\delta\leq n}\in\mathbb{N}\ (\\ M_{\delta_1}\notin\{x\mid\langle x,y\rangle\in C\}\Longrightarrow (\\ (M_{\delta_2}\in P\Longrightarrow\\ \forall_{1\leq\lambda\leq i}\in\mathbb{N}(\\ (C_{\lambda_2}=M_{\delta_2})\Longrightarrow (\phi=C_{\lambda})\\ )\\ \forall_{1\leq\omega\leq n}\in\mathbb{N}(\\ (W_{\omega}=M_{\delta_2})\Longrightarrow (\xi=\omega)\\ )\\ \forall_{1\leq\theta\leq (n-1)}\in\mathbb{N}((\\ (W_{\xi(\theta^{+1})}=\phi)\Longrightarrow (\phi=W_{\xi(\theta^{+1})}))\vee (\\ (W_{\xi(\theta^{+1})}=M_{\delta_1})\Longrightarrow (\phi=W_{\xi(\theta^{+1})}))\vee (\\ (W_{\xi(\theta^{+1})}=M_{\delta_1})\Longrightarrow (\phi=W_{\xi(\theta^{+1})})\\ ))\\ C_{\lambda}=(\phi,M_{\delta_2})\\ )\vee (\\ i+=1\\ C_i=\langle M_{\delta_1},M_{\delta_2}\rangle\\ P=P\cup\{M_{\delta_2}\}\\ )\\ M_{\delta}=M_{\delta_1},M_{\delta_3},M_{\delta_4},\ldots,M_{\delta_{|M_{\delta}|}})) \end{array}
```

 $\mathtt{return}\ C$