

$$\begin{aligned}
& \{ f_{\emptyset, x} \rightarrow \text{Function}[\{\lambda\}, e^{-\beta[j]} \lambda (e^{2\alpha[j]} \xi[i] + e^{\beta[j]} \xi[j])], \\
& f_{\emptyset, y} \rightarrow \text{Function}[\{\lambda\}, e^{-\alpha[j]} \lambda (e^{2\beta[j]} \eta[i] + e^{\alpha[j]} \eta[j])], \\
& f_{\emptyset, x} \rightarrow \text{Function}[\{\lambda\}, e^{-\beta[i]} \lambda (e^{\beta[i]} \Xi[i] + e^{2\alpha[i]} \Xi[j] + e^{2\alpha[i]} \lambda \eta[i] \times \Omega[j])], \\
& f_{\emptyset, y} \rightarrow \text{Function}[\{\lambda\}, e^{-\alpha[i]} \lambda (e^{\alpha[i]} \Upsilon[i] + e^{2\beta[i]} \Upsilon[j] - e^{2\beta[i]} s \lambda \xi[i] \times \Omega[j])], \\
& f_{\emptyset, z} \rightarrow \text{Function}[\{\lambda\}, e^{-\beta[j]} \lambda (e^{\alpha[j]+2\beta[j]} \zeta[i] + e^{\beta[j]} \zeta[j] + e^{2\alpha[j]} \lambda \eta[j] \times \xi[i])], \\
& f_{\emptyset, 1} \rightarrow \text{Function}[\{\lambda\}, \lambda^2 \xi[i] \times \Xi[j] - s \lambda^2 \xi[i] \times \Xi[j] + \lambda^2 \eta[i] \times \Upsilon[j] - t \lambda^2 \eta[i] \times \Upsilon[j] + \\
& \quad \lambda^2 \zeta[i] \times \Omega[j] - s t \lambda^2 \zeta[i] \times \Omega[j] - s \lambda^3 \eta[i] \times \xi[i] \times \Omega[j] + s t \lambda^3 \eta[i] \times \xi[i] \times \Omega[j]], \\
& f_{\emptyset, z} \rightarrow \text{Function}[\{\lambda\}, \lambda (\Omega[i] + e^{\alpha[i]+\beta[i]} \Omega[j])], \\
& f_{1, a} \rightarrow \text{Function}[\{\lambda\}, -2 s \lambda^2 (-\xi[i] \times \Xi[j] - t \zeta[i] \times \Omega[j] - \lambda \eta[i] \times \xi[i] \times \Omega[j] + t \lambda \eta[i] \times \xi[i] \times \Omega[j])], \\
& f_{1, b} \rightarrow \text{Function}[\{\lambda\}, -2 t \lambda^2 (-\eta[i] \times \Upsilon[j] - s \zeta[i] \times \Omega[j] + s \lambda \eta[i] \times \xi[i] \times \Omega[j])], \\
& f_{1, xy} \rightarrow \text{Function}[\{\lambda\}, -e^{2\alpha[j]-\beta[j]} \lambda^2 \eta[j] \times \xi[i]], \\
& f_{1, xx} \rightarrow \text{Function}[\{\lambda\}, -e^{2\alpha[i]+2\alpha[j]-\beta[i]-\beta[j]} \lambda^2 \xi[i] (2\Xi[j] + \lambda \eta[i] \times \Omega[j])], \\
& f_{1, xy} \rightarrow \text{Function}[\{\lambda\}, e^{2\alpha[i]-\alpha[j]-\beta[i]+2\beta[j]} \lambda^2 \eta[i] \times \Xi[j]], \\
& f_{1, x^2} \rightarrow \text{Function}[\{\lambda\}, e^{4\alpha[i]-2\beta[i]} \lambda^3 \eta[i] \times \Xi[j] \times \Omega[j]], \\
& f_{1, ay} \rightarrow \text{Function}[\{\lambda\}, 2 e^{-\alpha[i]+2\beta[i]} s \lambda^2 \xi[i] \times \Omega[j]], \\
& f_{1, xy} \rightarrow \text{Function}[\{\lambda\}, e^{-\alpha[i]+2\alpha[j]+2\beta[i]-\beta[j]} \lambda^2 \xi[i] (\Upsilon[j] + 2 s \lambda \xi[i] \times \Omega[j])], \\
& f_{1, y\Upsilon} \rightarrow \text{Function}[\{\lambda\}, -2 e^{-\alpha[i]-\alpha[j]+2\beta[i]+2\beta[j]} \lambda^2 \eta[i] \times \Upsilon[j]], \\
& f_{1, x\Upsilon} \rightarrow \text{Function}[\{\lambda\}, e^{\alpha[i]-\beta[i]} \lambda^2 (e^{\alpha[i]} \Xi[j] \times \Upsilon[i] + 2 e^{2\beta[i]} s \lambda \xi[i] \times \Xi[j] \times \Omega[j] + \\
& \quad e^{\alpha[i]} \lambda \eta[i] \times \Upsilon[i] \times \Omega[j] - e^{2\beta[i]} \lambda \eta[i] \times \Upsilon[j] \times \Omega[j] + 2 e^{2\beta[i]} s \lambda^2 \eta[i] \times \xi[i] \Omega[j]^2)], \\
& f_{1, y^2} \rightarrow \text{Function}[\{\lambda\}, -e^{-2\alpha[i]+4\beta[i]} s \lambda^3 \xi[i] \times \Upsilon[j] \times \Omega[j]], \\
& f_{1, xz} \rightarrow \text{Function}[\{\lambda\}, e^{2\alpha[j]-\beta[j]} \lambda^2 \zeta[j] \times \xi[i]], f_{1, x} \rightarrow \text{Function}[\{\lambda\}, -e^{2\alpha[j]-\beta[j]} \lambda^2 \\
& \quad (\lambda \xi[i]^2 \Xi[j] - 3 s \lambda \xi[i]^2 \Xi[j] + 2 t \zeta[i] \times \Upsilon[j] - \lambda \eta[i] \times \xi[i] \times \Upsilon[j] + t \lambda \eta[i] \times \xi[i] \times \Upsilon[j] + \lambda \zeta[i] \times \\
& \quad \xi[i] \times \Omega[j] - 3 s t \lambda \zeta[i] \times \xi[i] \times \Omega[j] - 2 s \lambda^2 \eta[i] \xi[i]^2 \Omega[j] + 2 s t \lambda^2 \eta[i] \xi[i]^2 \Omega[j])], f_{1, yz} \rightarrow \\
& \quad \text{Function}[\{\lambda\}, -e^{-\alpha[j]-\beta[j]} \lambda^2 (e^{3\beta[j]} \zeta[j] \times \eta[i] + e^{2\alpha[j]+2\beta[j]} \lambda \eta[i] \times \eta[j] \times \xi[i] + e^{3\alpha[j]} \lambda \eta[j]^2 \xi[i])], \\
& f_{1, y} \rightarrow \text{Function}[\{\lambda\}, -e^{-\alpha[j]+2\beta[j]} \lambda^2 (-2 \zeta[i] \times \Xi[j] + 2 s \lambda \eta[i] \times \xi[i] \times \Xi[j] + \lambda \eta[i]^2 \Upsilon[j] - 3 t \lambda \eta[i]^2 \Upsilon[\\
& \quad j] - \lambda \zeta[i] \times \eta[i] \times \Omega[j] - s t \lambda \zeta[i] \times \eta[i] \times \Omega[j] + s \lambda^2 \eta[i]^2 \xi[i] \times \Omega[j] + s t \lambda^2 \eta[i]^2 \xi[i] \times \Omega[j])], \\
& f_{1, xz} \rightarrow \text{Function}[\{\lambda\}, -e^{2\alpha[i]+\alpha[j]-\beta[i]-\beta[j]} \lambda^2 (e^{2\beta[j]} \zeta[i] \times \Xi[j] + 2 e^{\alpha[j]} \lambda \eta[j] \times \xi[i] \times \Xi[j] + \\
& \quad e^{2\beta[j]} \lambda \zeta[i] \times \eta[i] \times \Omega[j] + e^{\alpha[j]} \lambda^2 \eta[i] \times \eta[j] \times \xi[i] \times \Omega[j])], \\
& f_{1, x} \rightarrow \text{Function}[\{\lambda\}, -e^{2\alpha[i]-\beta[i]} \lambda^3 (\xi[i] \Xi[j]^2 - 3 s \xi[i] \Xi[j]^2 - \eta[i] \times \Xi[j] \times \Upsilon[j] + \\
& \quad t \eta[i] \times \Xi[j] \times \Upsilon[j] - \zeta[i] \times \Xi[j] \times \Omega[j] - s t \zeta[i] \times \Xi[j] \times \Omega[j] - 3 s \lambda \eta[i] \times \xi[i] \times \Xi[j] \times \Omega[j] + \\
& \quad s t \lambda \eta[i] \times \xi[i] \times \Xi[j] \times \Omega[j] + \lambda \eta[i]^2 \Upsilon[j] \times \Omega[j] - t \lambda \eta[i]^2 \Upsilon[j] \times \Omega[j] - \\
& \quad 2 s t \lambda \zeta[i] \times \eta[i] \Omega[j]^2 - 2 s \lambda^2 \eta[i]^2 \xi[i] \Omega[j]^2 + 2 s t \lambda^2 \eta[i]^2 \xi[i] \Omega[j]^2)], \\
& f_{1, yz} \rightarrow \text{Function}[\{\lambda\}, e^{-\alpha[i]+\alpha[j]+2\beta[i]-\beta[j]} \lambda^2 (-e^{2\beta[j]} \zeta[i] \times \Upsilon[j] + e^{\alpha[j]} \lambda \eta[j] \times \xi[i] \times \Upsilon[j] + \\
& \quad 3 e^{2\beta[j]} s \lambda \zeta[i] \times \xi[i] \times \Omega[j] + 2 e^{\alpha[j]} s \lambda^2 \eta[j] \xi[i]^2 \Omega[j])], \\
& f_{1, y} \rightarrow \text{Function}[\{\lambda\}, e^{-\alpha[i]+2\beta[i]} \lambda^2 (-2 s \lambda \xi[i] \times \Xi[j] \times \Upsilon[j] - \lambda \eta[i] \Upsilon[j]^2 + 3 t \lambda \eta[i] \Upsilon[j]^2 - \\
& \quad s \xi[i] \times \Omega[j] + s \lambda^2 \xi[i]^2 \Xi[j] \times \Omega[j] - s^2 \lambda^2 \xi[i]^2 \Xi[j] \times \Omega[j] - \lambda \zeta[i] \times \Upsilon[j] \times \Omega[j] + \\
& \quad 3 s t \lambda \zeta[i] \times \Upsilon[j] \times \Omega[j] - 4 s t \lambda^2 \eta[i] \times \xi[i] \times \Upsilon[j] \times \Omega[j] + 2 s \lambda^2 \zeta[i] \times \xi[i] \Omega[j]^2 - \\
& \quad 4 s^2 t \lambda^2 \zeta[i] \times \xi[i] \Omega[j]^2 - s^2 \lambda^3 \eta[i] \xi[i]^2 \Omega[j]^2 + 3 s^2 t \lambda^3 \eta[i] \xi[i]^2 \Omega[j]^2)], \\
& f_{1, z^2} \rightarrow \text{Function}[\{\lambda\}, e^{2\alpha[j]-\beta[j]} \lambda^3 \zeta[j] \times \eta[j] \times \xi[i]], f_{1, z} \rightarrow \text{Function}[\{\lambda\}, \\
& \quad -e^{\alpha[j]-\beta[j]} (-2 e^{2\beta[j]} s \lambda^3 \zeta[i] \times \xi[i] \times \Xi[j] + e^{\alpha[j]} \lambda^4 \eta[j] \xi[i]^2 \Xi[j] - 3 e^{\alpha[j]} s \lambda^4 \eta[j] \xi[i]^2 \Xi[j] + \\
& \quad 2 e^{\alpha[j]} t \lambda^3 \zeta[i] \times \eta[j] \times \Upsilon[j] - e^{\alpha[j]} \lambda^4 \eta[i] \times \eta[j] \times \xi[i] \times \Upsilon[j] + e^{\alpha[j]} t \lambda^4 \eta[i] \times \eta[j] \times \xi[i] \times \Upsilon[j] + \\
& \quad e^{2\beta[j]} \lambda^3 \zeta[i]^2 \Omega[j] - 3 e^{2\beta[j]} s t \lambda^3 \zeta[i]^2 \Omega[j] - 2 e^{2\beta[j]} s \lambda^4 \zeta[i] \times \eta[i] \times \xi[i] \times \Omega[j] + \\
& \quad 2 e^{2\beta[j]} s t \lambda^4 \zeta[i] \times \eta[i] \times \xi[i] \times \Omega[j] + e^{\alpha[j]} \lambda^4 \zeta[i] \times \eta[j] \times \xi[i] \times \Omega[j] - 3 e^{\alpha[j]} s t \lambda^4 \zeta[i] \times \\
& \quad \eta[j] \times \xi[i] \times \Omega[j] - 2 e^{\alpha[j]} s \lambda^5 \eta[i] \times \eta[j] \xi[i]^2 \Omega[j] + 2 e^{\alpha[j]} s t \lambda^5 \eta[i] \times \eta[j] \xi[i]^2 \Omega[j])], \\
& f_{1, 1} \rightarrow \text{Function}[\{\lambda\}, \frac{1}{2} (-\lambda^4 \xi[i]^2 \Xi[j]^2 + 4 s \lambda^4 \xi[i]^2 \Xi[j]^2 - 3 s^2 \lambda^4 \xi[i]^2 \Xi[j]^2 + \\
& \quad 4 \lambda^3 \zeta[i] \times \Xi[j] \times \Upsilon[j] - 4 t \lambda^3 \zeta[i] \times \Xi[j] \times \Upsilon[j] - 4 s \lambda^4 \eta[i] \times \xi[i] \times \Xi[j] \times \Upsilon[j] + \\
& \quad 4 s t \lambda^4 \eta[i] \times \xi[i] \times \Xi[j] \times \Upsilon[j] - \lambda^4 \eta[i]^2 \Upsilon[j]^2 + 4 t \lambda^4 \eta[i]^2 \Upsilon[j]^2 - 3 t^2 \lambda^4 \eta[i]^2 \Upsilon[j]^2 - \\
& \quad 2 s \lambda^3 \eta[i] \times \xi[i] \times \Omega[j] + 2 s t \lambda^3 \eta[i] \times \xi[i] \times \Omega[j] + 4 s t \lambda^4 \zeta[i] \times \xi[i] \times \Xi[j] \times \Omega[j] - \\
& \quad 4 s^2 t \lambda^4 \zeta[i] \times \xi[i] \times \Xi[j] \times \Omega[j] + 2 s \lambda^5 \eta[i] \xi[i]^2 \Xi[j] \times \Omega[j] - 2 s^2 \lambda^5 \eta[i] \xi[i]^2 \Xi[j] \times \Omega[j] - \\
& \quad 2 s t \lambda^5 \eta[i] \xi[i]^2 \Xi[j] \times \Omega[j] + 2 s^2 t \lambda^5 \eta[i] \xi[i]^2 \Xi[j] \times \Omega[j] + 4 s t \lambda^4 \zeta[i] \times \eta[i] \times \Upsilon[j] \times \Omega[j] - \\
& \quad 4 s t^2 \lambda^4 \zeta[i] \times \eta[i] \times \Upsilon[j] \times \Omega[j] - 4 s t \lambda^5 \eta[i]^2 \xi[i] \times \Upsilon[j] \times \Omega[j] + 4 s t^2 \lambda^5 \eta[i]^2 \xi[i] \times \Upsilon[j] \times \Omega[j] - \\
& \quad \lambda^4 \zeta[i]^2 \Omega[j]^2 + 4 s t \lambda^4 \zeta[i]^2 \Omega[j]^2 - 3 s^2 t^2 \lambda^4 \zeta[i]^2 \Omega[j]^2 + 2 s \lambda^5 \zeta[i] \times \eta[i] \times \xi[i] \Omega[j]^2 - \\
& \quad 2 s t \lambda^5 \zeta[i] \times \eta[i] \times \xi[i] \Omega[j]^2 - 6 s^2 t \lambda^5 \zeta[i] \times \eta[i] \times \xi[i] \Omega[j]^2 + 6 s^2 t^2 \lambda^5 \zeta[i] \times \eta[i] \times \xi[i] \Omega[j]^2 - \\
& \quad s^2 \lambda^6 \eta[i]^2 \xi[i]^2 \Omega[j]^2 + 4 s^2 t \lambda^6 \eta[i]^2 \xi[i]^2 \Omega[j]^2 - 3 s^2 t^2 \lambda^6 \eta[i]^2 \xi[i]^2 \Omega[j]^2)], \\
& f_{1, xz} \rightarrow \text{Function}[\{\lambda\}, -e^{\alpha[i]+2\alpha[j]+\beta[i]-\beta[j]} \lambda^2 \xi[i] \times \Omega[j]], \\
& f_{1, yz} \rightarrow \text{Function}[\{\lambda\}, -e^{\alpha[i]-\alpha[j]+\beta[i]+2\beta[j]} \lambda^2 \eta[i] \times \Omega[j]], \\
& f_{1, xz} \rightarrow \text{Function}[\{\lambda\}, -e^{2\alpha[i]-\beta[i]} \lambda^2 (\Xi[j] \times \Omega[i] + \lambda \eta[i] \times \Omega[i] \times \Omega[j] + e^{\alpha[i]+\beta[i]} \lambda \eta[i] \Omega[j]^2)], \\
& f_{1, yz} \rightarrow \text{Function}[\{\lambda\}, e^{-\alpha[i]+2\beta[i]} \lambda^2 (\Upsilon[j] \times \Omega[i] - s \lambda \xi[i] \times \Omega[i] \times \Omega[j] + e^{\alpha[i]+\beta[i]} s \lambda \xi[i] \Omega[j]^2)], \\
& f_{1, zz} \rightarrow \text{Function}[\{\lambda\}, -e^{\alpha[i]+\alpha[j]+\beta[i]-\beta[j]} \lambda^2 (2 e^{2\beta[j]} \zeta[i] + e^{\alpha[j]} \lambda \eta[j] \times \xi[i]) \Omega[j]], \\
& f_{1, z} \rightarrow \text{Function}[\{\lambda\}, \\
& \quad -e^{\alpha[i]-\beta[i]} \lambda^2 (2 e^{\alpha[i]} \Xi[j] \times \Upsilon[i] - 2 e^{2\beta[i]} s \lambda \xi[i] \times \Xi[j] \times \Omega[j] + 2 e^{\alpha[i]} \lambda \eta[i] \times \Upsilon[i] \times \Omega[j] + \\
& \quad 2 e^{2\beta[i]} \lambda \eta[i] \times \Upsilon[j] \times \Omega[j] - 2 e^{2\beta[i]} t \lambda \eta[i] \times \Upsilon[j] \times \Omega[j] + e^{2\beta[i]} \lambda \zeta[i] \Omega[j]^2 - \\
& \quad 3 e^{2\beta[i]} s t \lambda \zeta[i] \Omega[j]^2 - 3 e^{2\beta[i]} s \lambda^2 \eta[i] \times \xi[i] \Omega[j]^2 + 3 e^{2\beta[i]} s t \lambda^2 \eta[i] \times \xi[i] \Omega[j]^2))] \}
\end{aligned}$$