b) Maxwell Model

$$G(s) = \frac{\eta_0}{\lambda} e^{-s/\lambda}$$

$$\eta^- = \int_t^\infty G(s)\,ds = \frac{\eta_0}{\lambda}(-\lambda)\int_t^\infty e^{-s/\lambda}\left(-\frac{1}{\lambda}\,ds\right)$$

$$= -\eta_0\, e^{-s/\lambda}\Big|_t^\infty$$

$$= -\eta_0\left(0 - e^{-t/\lambda}\right)$$

$$\boxed{\eta^-(t) = \eta_0 e^{-t/\lambda}}$$

c) GMM $\quad G(s) = \sum_{k=1}^{N} \frac{\eta_k}{\lambda_k} e^{-s/\lambda_k}$

$$\eta^-(t) = \int_t^\infty \sum_{k=1}^{N} \frac{\eta_k}{\lambda_k} e^{-s/\lambda_k}\,ds$$

$$= \sum_{k=1}^{N} \frac{\eta_k}{\lambda_k} \underbrace{\int_t^\infty e^{-s/\lambda_k}\,ds}_{= \lambda_k e^{-t/\lambda_k} \text{ from above}}$$

$$\boxed{\eta^-(t) = \sum_{k=1}^{N} \eta_k e^{-t/\lambda_k}}$$

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