7.2.30.

$$L^{-1}\left\{\frac{6s+3}{s^4+5s^2+4}\right\}=L^{-1}\left\{\frac{6s+3}{(s^2+1)(s^2+4)}\right\}=$$

$$=L^{-1}\left\{\frac{As+B}{s^2+1}+\frac{Cs+D}{s^2+4}\right\}=$$

$$\left.\begin{array}{l} 6s+3=(As+B)(s^2+4)+(Cs+D)(s^2+1) \\ s^3:\ 0=A+C\ ,\quad C=-A \\ s^2:\ 0=B+D\ ,\quad D=-B \\ s:\ 6=4A+C\ ,\quad 6=3A \\ s^0:\ 3=4B+D\ ,\quad 3=3B \end{array}\right\}=$$

$$= L^{-1}\left[\frac{2s+1}{s^2+1} + \frac{-2s-1}{s^2+4}\right] =$$

$$= 2L^{-1}\left[\frac{s}{s^2+1}\right] + L^{-1}\left[\frac{1}{s^2+1}\right] - 2L^{-1}\left[\frac{s}{s^2+4}\right] - L^{-1}\left[\frac{1}{s^2+4}\right] =$$

$$= 2\cos t + \sin t - 2\cos 2t - \frac{1}{2}\sin 2t$$