3.33 a) DCT–I $\acute{}$ SDCT

DCT–II $\acute{}$ EDCT

DCT–III^T (Transposed) $\acute{}$ DCT–II

DCT–IV is a shifted version of the SDCT

b) The relations derived i a) gives the kernel K for the inverse transforms.

IDCT–I $\acute{}$ $K_{DCT-I}{}^T = K_{DCT-I}$

IDCT–II $\acute{}$ $K_{DCT-II}{}^T = K_{DCT-III}$

IDCT–III $\acute{}$ $K_{DCT-III}{}^T = K_{DCT-II}$

IDCT–IV $\acute{}$ $K_{DCT-IV}{}^T = K_{DCT-IV}$