

Assignment #9&10 CE242 : Signals & Systems
Dept. of Computer Engineering
Sharif University of Technology
Fall 2005

Distributed: 9/10

Due: 10/11

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I) Solve the following problems from Oppenheim :

9.15)

9.16)

9.21) Extra Credit

9.30)

9.31)

9.32)

9.33)

9.40)

10.4)

10.6)

10.16)

10.21) a,c,f,h

10.27)

10.35)

10.36)

10.42)

II)

(Extra Credit)

An LTI system is said to be minimum phase if and only if it is causal and stable and its inverse is also causal and stable. a) Assume that the transfer function of an LTI system is rational. If the system is minimum-phase, what can you say about the poles and zeros of this system. b) assume that a system has one zero and two poles at these locations: $p_1=0.5+0.5j$, $p_2=0.5-0.5j$, $z=0$; Is this system minimum-phase?