

Problem 1: 1.(a) o Analysis: For t other than zero output applies, since $y(t)$ depends on present value of $x(t)$ but with no regard of any prior or succeeding values of $x(t)$.(b) o Analysis: It appears the output is dependent of all values of $x(t)$ in the past as seen in the function j where integration is done from minus infinity to t . Conclusion: The system is dynamic (with memory).(c) Analysis: The term that carries further components of time, that is $(d/dt (x(t - 2)))$ Conclusion: The system is dynamic (with memory).Conclusion: The system is memoryless.Conclusion: The system is dynamic (with memory).2.3.4.