TITLE Page

Name : ASHFAQ AHMAD

Reg No: 19PWCSE1795

Section : B

Paper: Signal & System

Mid-term paper

Date: 25-5-2021

xx xx xx xx

S M T W T F S Date:

Answer No: 01

Part (a)

Even Signal:

A Signal is said to be even, if we put Independent variable is negative and it give us positive value is said to be even, i.e no change in output by changing sign if i.e $x(-t) = x(t)$

Odd Signal:

A Signal is said to be odd if we put Independent variable is -ive and output also give a -ive value i.e output change by changing sign of input.

i.e $x(-t) = -x(t)$.

even or odd

Yes, A function can be neither even nor odd if it does not exhibit either Symmetry.

For example:

$f(x) = 2x$ neither even nor odd

both Even and odd

The only function that is both even and odd is the constant function,

i.e $f(x) = 0$

—xx —xx —xx —xx 4.

Answer No: 01

Part (b)

My Reg No is 19PWCSE1795

So

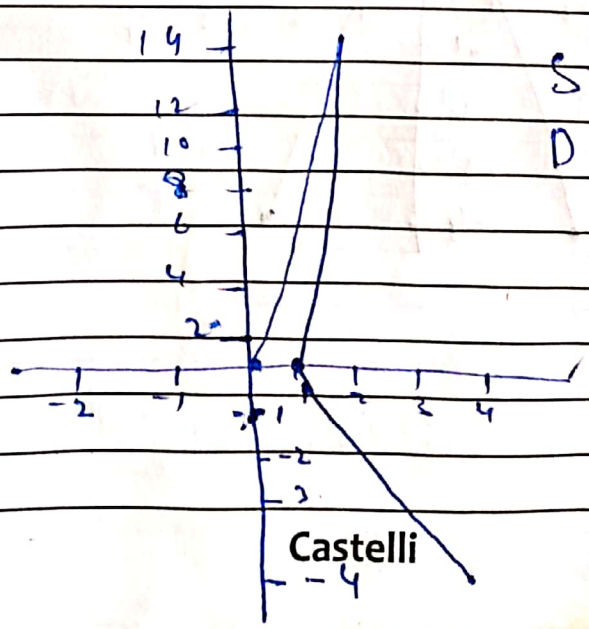
$S = 5 + 9$

$S = 14$

$D = 5 - 9$

$D = -4$

even and odd part of Continous-time signal $x(t)$



$S = 14$

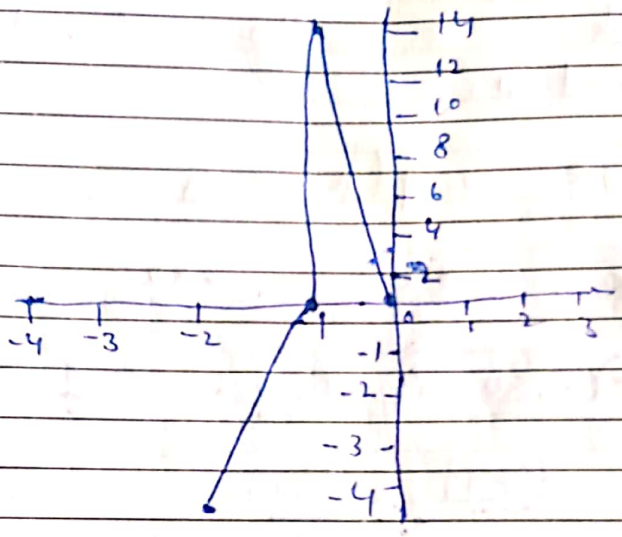
$D = -4$

S M T W T F S

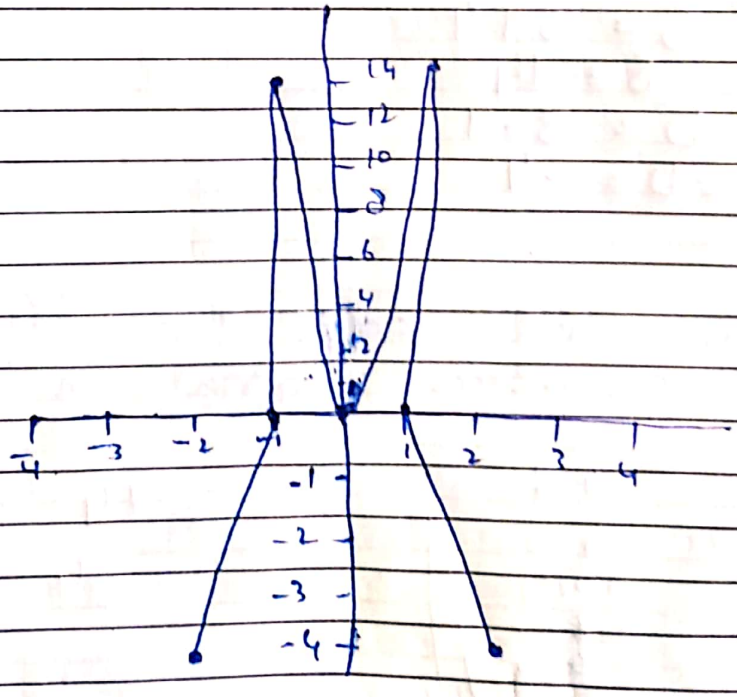
Date:

for even: $\frac{1}{2}[x(t) + x(-t)]$

$x(-t)$:



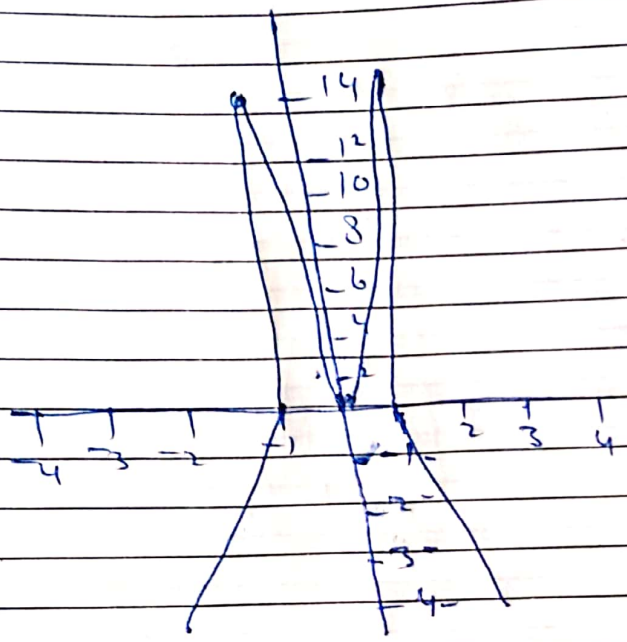
$x(t) + x(-t)$:



S M T W T F S

Date:

Even $= \frac{1}{2}[x(t) + x(-t)]$;



for odd: $\frac{1}{2}[x(t) - x(-t)]$;