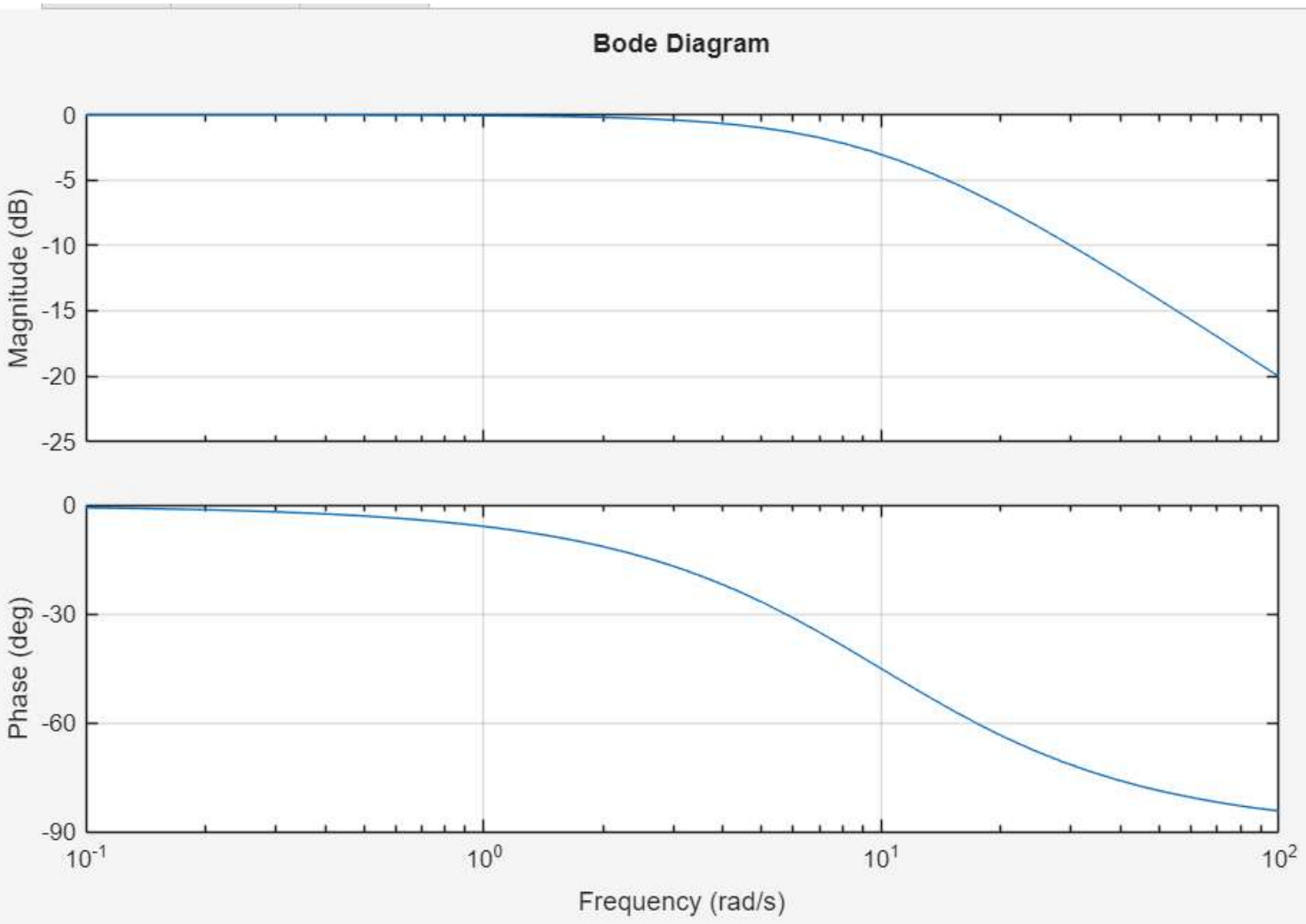
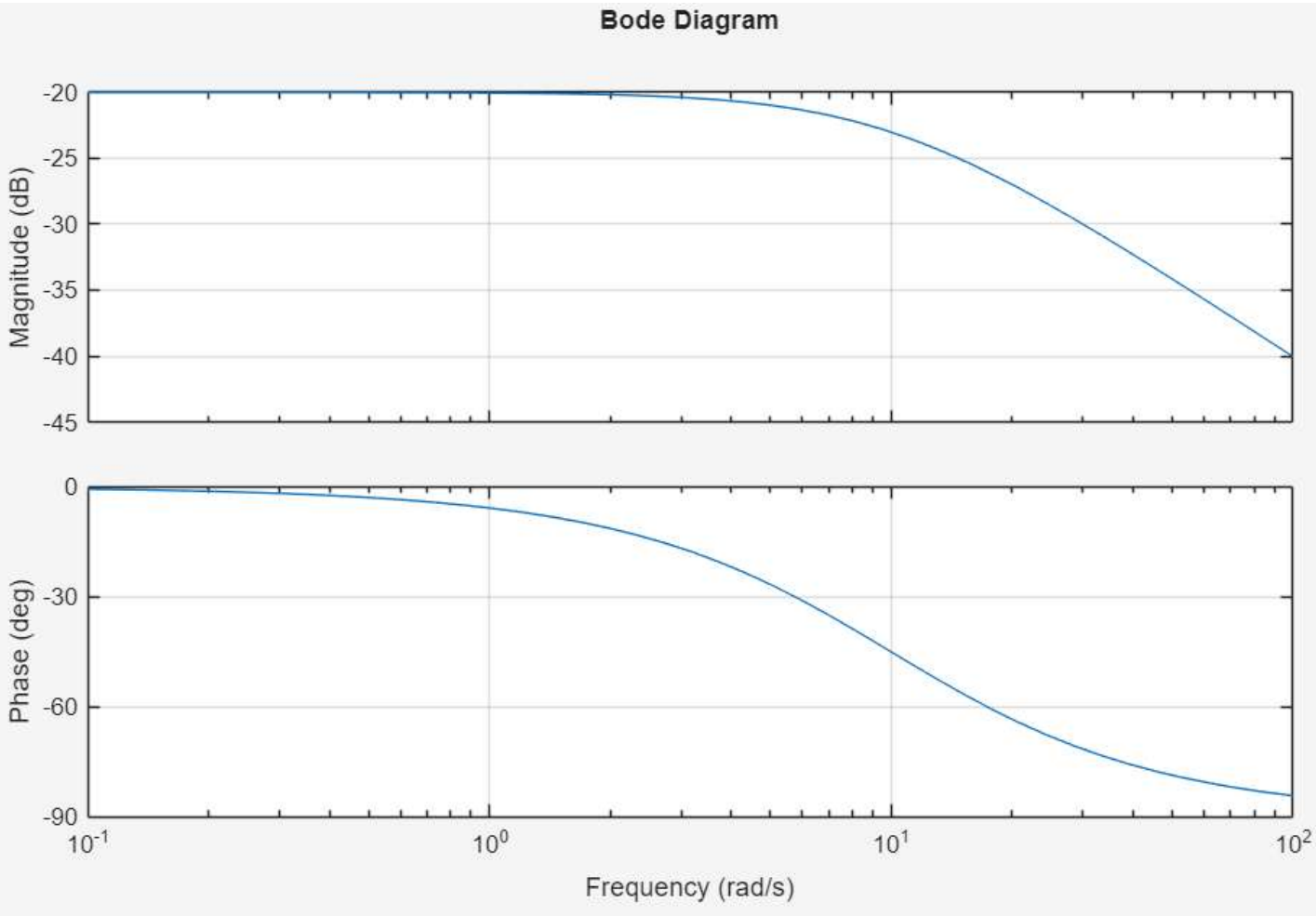
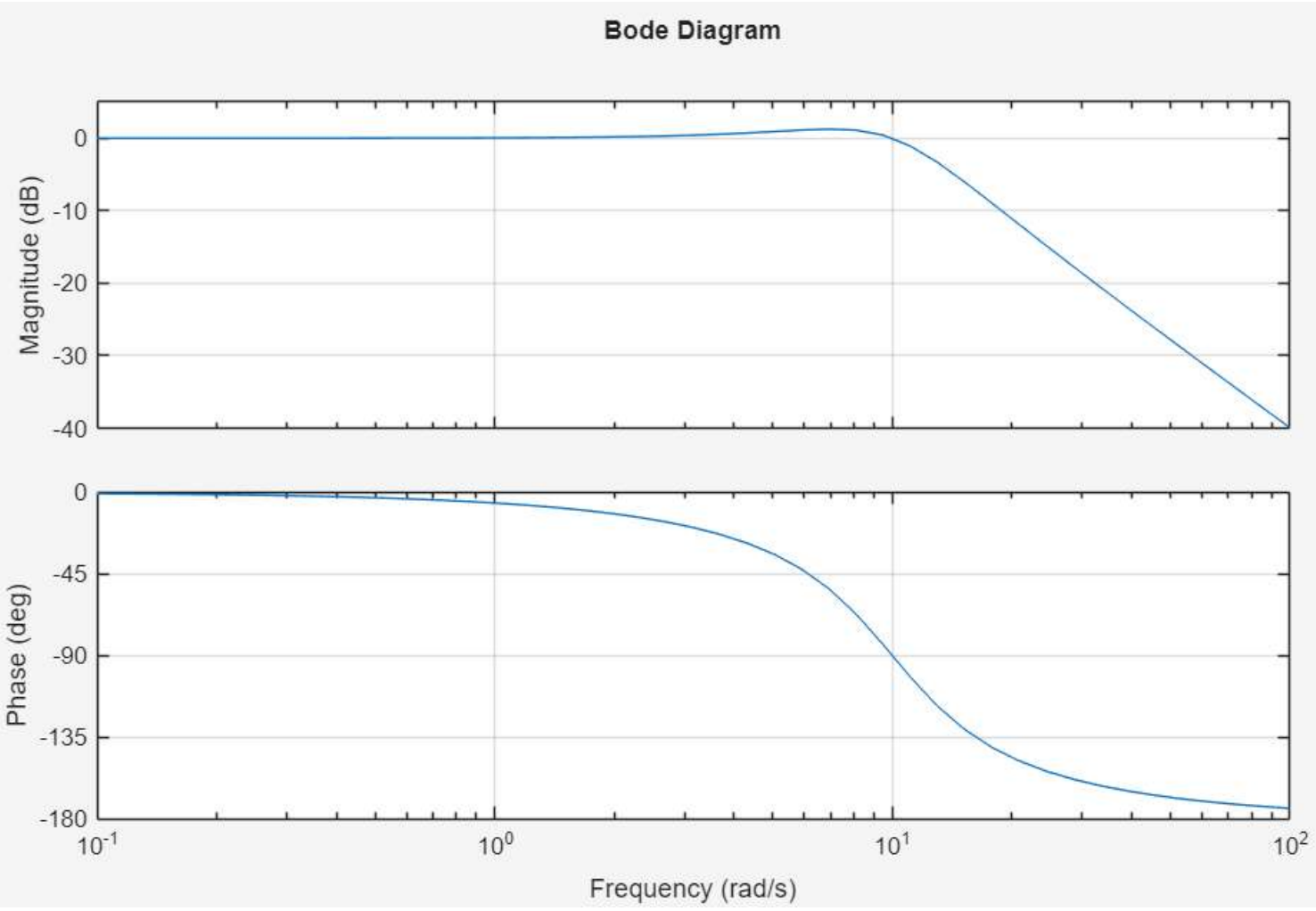
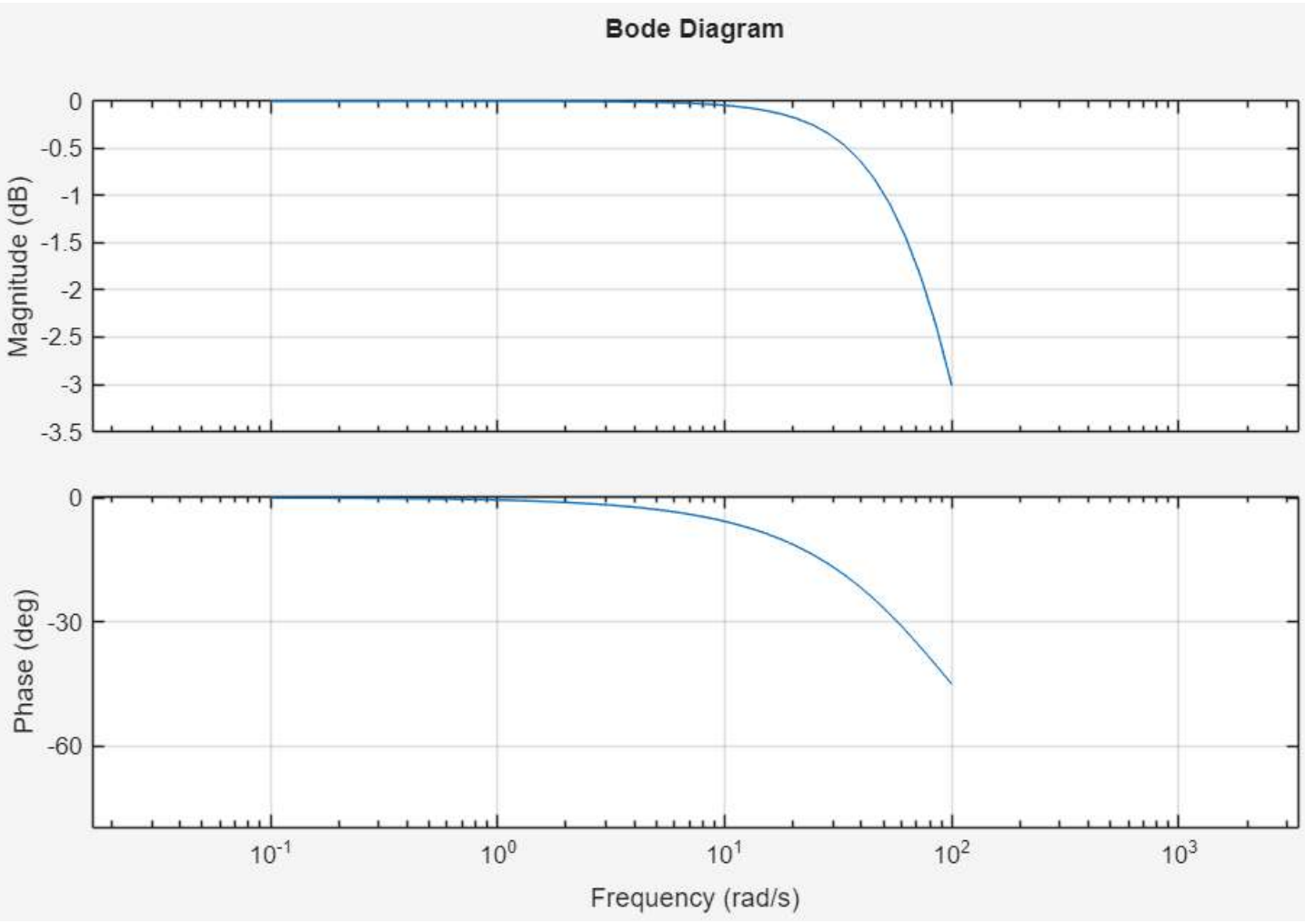

Bode Diagram
Magnitude (dB)
0
-5
-10
-15
-20
-25
Phase (deg)
0
-30
-60
-90
10^{-1}
10^{0}
10^{1}
10^{2}
Frequency (rad/s)


Bode Diagram
Magnitude (dB)
-20
-25
-30
-35
-40
-45
Phase (deg)
0
-30
-60
-90
10^-1
10^0
10^1
10^2
Frequency (rad/s)

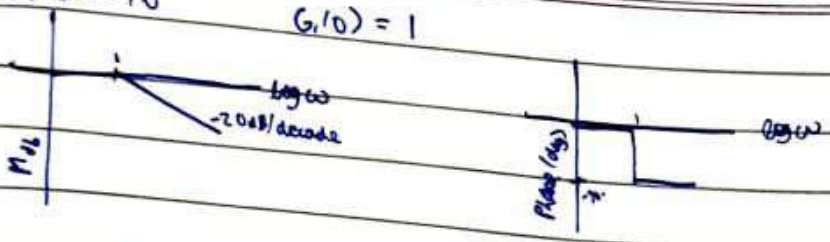

Bode Diagram
Magnitude (dB)
0
-10
-20
-30
-40
Phase (deg)
0
-45
-90
-135
-180
10^{-1}
10^{0}
10^{1}
10^{2}
Frequency (rad/s)


Bode Diagram
Magnitude (dB)
0
-0.5
-1
-1.5
-2
-2.5
-3
-3.5
Phase (deg)
0
-30
-60
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
Frequency (rad/s)

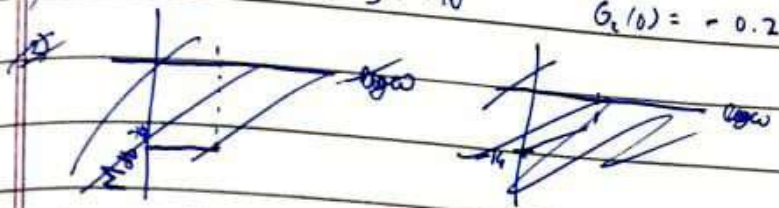
Date : / /
Page No.

1) 1.1 1) Pole: $s = -10$ $G_1(0) = 1$

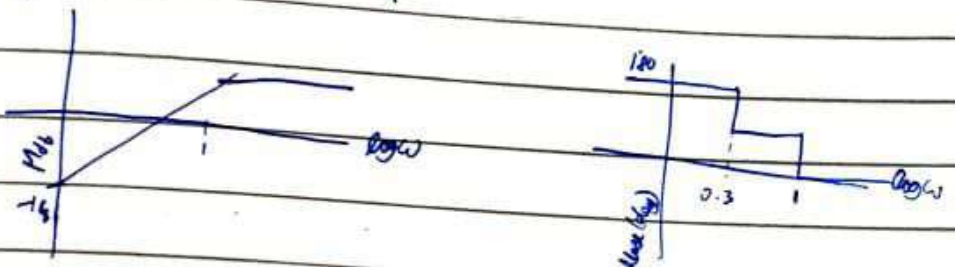
2)



1.2 1) Zero: $s = 2$ Pole: $s = -10$ $G_2(0) = -0.2$

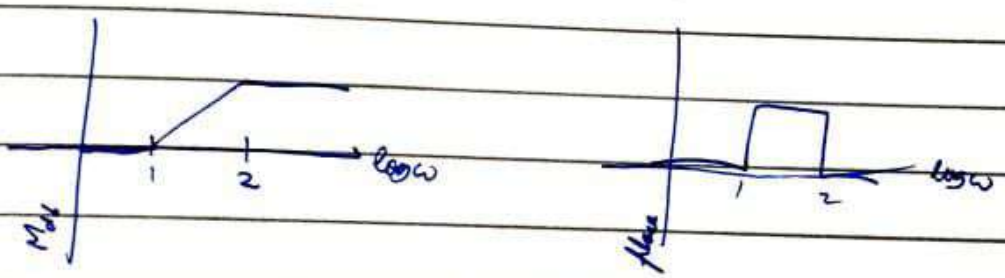


2)



1.4 1) Zero: $s = -10$ Pole: $s = -100$

2)



4) phase lead

2) B1) 1) $-kx - d\dot{x} + f = m\ddot{x}$

2) 3) $-kX - dsX + F = ms^2X \rightarrow \frac{X}{F} = \frac{1}{ms^2 + ds + k} = G(s)$

B2) 1) $G(s) = \frac{1}{s^2 + 4s + 16}$

2) Poles: $-2 \pm i2\sqrt{3}$