

EE2111

Book Reference: Signals and Systems by M. J. Roberts

Homework # 2 due on Feb 23, 2020

Following problems (1-9) are from Chapter 2 of the book:

1) 29 (a, c, e, g, i, q, u, and y)

2) 30 (a, c, g, n and o)

3) 33 (a)

4) 37 (a, b)

5) 39

6) 43 (a and c only)

7) 56 (a and b only)

8) 65

9) 73 (a and b)

10) Identify which of the following signals are continuous time and which are discrete time. Also find the period of all signals. In case of discrete time, find out the number of cycles of the original continuous time signals which were used to obtain one discrete time period. If the sampling time is 0.01 sec, what is the time period in seconds for discrete time signals.

a. $3\sin(10\pi t)$

b. $2\cos(13.4\pi t + \pi/2)$

c. $4\cos[4.26\pi n + \pi/4]$

d. $3\sin[2.4\pi n]$