

School of Electrical Electronics and Communication Engineering

Electrical Engineering

ETE - Jun 2023

Time : 3 Hours

Marks : 50

Sem VI - BECE3025 - Digital Signal Processing

Your answer should be specific to the question asked

Draw neat labeled diagrams wherever necessary

1. Explain the importance of poles in filter design. K2 CO4 (2)
2. What are the basic components of RADAR? K2 CO5 (2)
3. Why IIR filters do not have linear phase? K2 CO3 (2)
4. What is meant by aliasing? How can it be avoided? K1 CO1 (2)
5. List any four properties of DFT. K1 CO2 (2)
6. Compare hamming and hanning windowing techniques K4 CO4 (6)
7. Formulate the relationship between the analog and digital frequencies when converting an analog filter using bilinear transformation. K3 CO2 (5)
,CO3
8. Findout the percentage saving in computing through radix – 2, DFT algorithm of DFT coefficients. Assume N = 512. K3 CO2 (5)
9. With proper diagrams, explain in detail the architecture of TMS320C2242? K5 CO3 (8)
10. What are the four stages of biomedical signal processing? Write down the various applications of biomedical signal processing in detail. K5 CO5 (8)
11. Design a linear phase FIR bandstop filter to reject frequencies in the range 0.4π to 0.62π rad/sample by using rectangular window taking 7 samples of window sequence. K4 CO2 (8)