Rajeev Gandhi Memorial College of Engineering & Technology

Autonomous

NANDYAL-518501

IV B.Tech I-Semester Mid-II *Examinations*

DIGITAL SIGNAL PROCESSING

Branch:EEE

Max. Marks: 25   Date:6-03-2021   Time: 2 Hours

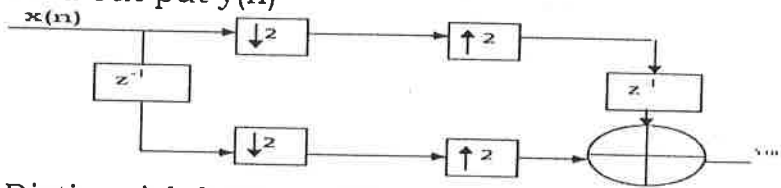**Note: 1. Answer FIRST question compulsorily.**   (5 x 2 = 10 Marks)

    2. Answer Any THREE from 2 to 5 questions.   (3 x 5 = 15 Marks)

Q.1 a) What is meant warping effect?   2M   CO4

  b) The impulse of FIR filter is h(n)=(1,1). Find the phase delay   2M   CO4
and group delay.

  c) The impulse of FIR filter is h(n)=(1,2,1). Draw the magnitude   2M   CO5
and phase response.

  d) Find out put y(n)   2M   CO6

  e) Distinguish between FIR and IIR.   2M   CO4

Q.2   Using frequency sampling method, design a band pass filter   5M   CO5
with the following specifications. Sampling frequency 9000Hz,
lower cutoff frequency 2000Hz and higher cutoff frequency
3000Hz. Determine the filter coefficients at N=7.

Q.3   Compare the single stage two stage and three stage of   5M   CO6
decimator with following specification sampling rate of signal
has to be reduced 10kHz to 500Hz. The decimation filter has
pass band edge to be 150Hz, stop band edge to be 180Hz,
δ_p=0.002 and δ_s=0.001.

Q.4   Design a digital chebyshev filter to satisfy the constraints   5M   CO4
$$0.707 \leq |H(e^{jw})| \leq 1; \quad 0 \leq w \leq 0.2\pi$$
$$|H(e^{jw})| \leq 0.1; \quad 0.5 \leq w \leq \pi$$
Using bilinear transformation assume T=1sec.

Q.5 a) For the analog transfer function, $H(s)=\frac{1}{(s+1)(s^2+s+1)}$ determine   2M   CO4
H(z) using impulse invariant technique if T=1sec

  b) Show that decimation and interpolation are time variant   3M   CO6
systems

College Code: 09

Rajeev Gandhi Memorial College of Engineering & Technology
Autonomous
NANDYAL-518501
IV B.Tech I-Semester Mid-II *Examinations*
# Software Testing Methodologies and Tools
CSE

Max. Marks: 25   Date: 03-03-2021   Time: 2 Hours

Note: 1. Answer FIRST question compulsorily.   (5 x 2 = 10 Marks)
        2. Answer Any *THREE* from 2 to 5 questions.   (3 x 5 = 15 Marks)

Q.1	a)	What are the four areas of Decision Table?	2M	CO2
	b)	What is an Immaterial case?	2M	CO1
	c)	Write about Equivalence Relation?	2M	CO2
	d)	What is Transpose of a matrix	2M	CO1
	e)	Write any two Differences between Manual and Automation Testing?	2M	CO4
Q.2	a)	Explain 4 Variable KV chart with an example?	3M	CO3
	b)	Write KV chart specifications?	2M	CO2
Q.3	a)	Explain Node Reduction Algorithm for maximum path count?	3M	CO5
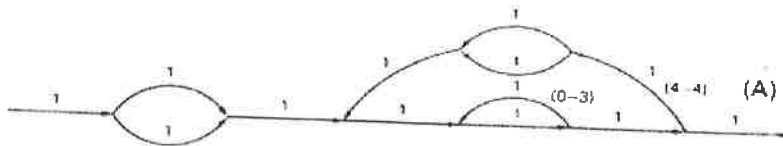
	b)	Write the difference between Symmetric and Antisymmetric Relation?	2M	CO3
Q.4	a)	Find the probability of getting there for the given problem?	3M	CO5
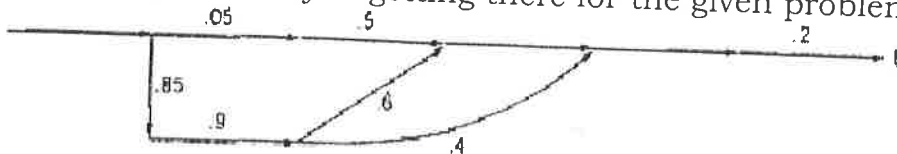
	b)	What is Cyclomatic Complexity?	2M	CO2
Q.5	a)	What are the reasons for using Automation Testing?	2M	CO3
	b)	Explain briefly about QTP?	3M	CO4