R16

II B. Tech II Semester Supplementary Examinations, November - 2018
PULSE AND DIGITAL CIRCUITS
(Com to ECE, EIE, ECC)

Time: 3 hours   Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answer **ALL** the question in **Part-A**
3. Answer any **FOUR** Questions from **Part-B**
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PART –A

1.	a)	If Pulse input is applied to a RC differentiator circuit ,What is the output signal and draw the wave form?	3M
	b)	If R_f=400Ω, R_r=40KΩ, Find 'R' of a Clamping Circuit?	2M
	c)	If reverse recovery time of a diode is 10 nsec, find f_{max}?	2M
	d)	Calculate the width of hysteresis if UTP=7V and LTP=6.5V	2M
	e)	Define voltage time base generator?	2M
	f)	What is meant by pedestal in sampling gate?	3M

PART -B

2.	a)	The limited ramp is applied to a RC differentiator circuit. Draw the Waveforms for the case, i) T=0.2RC ii)T=RC and iii) T=5RC.	7M
	b)	Explain the response of RLC series circuit for step input with suitable waveforms?	7M
3.	a)	Design and explain the clipper circuit using two -Zener diodes?	7M
	b)	Classify the clamper circuit and explain any of the circuit?	7M
4.	a)	Explain the behavior of BJT as a switch. Give applications.	7M
	b)	With suitable diagram explain the function of a basic bistable multivibrator? List out the drawbacks with this circuit?	7M
5.	a)	Determine the period and frequency of Oscillation for an astable multivibrator With component values R_1= 2KΩ, R_2=10 KΩ , C_1=0.01µF and C_2=0.05µF.	7M
	b)	With the help o f circuit diagram ,explain the working of collector coupled Monostable multivibrator.	7M
6.	a)	Draw a simple single stage transistor miller integration circuit and explain How it behaves as a time-base circuit.	7M
	b)	Draw the circuit of transistorized bootstrap generator and explain its working?	7M
7.	a)	State the two basic types of sampling gates and explain them	7M
	b)	List the advantages and disadvantages of RTL family.	7M

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