Model Question Paper-1 with effect from 2023-24 (CBCS Scheme)

USN

Third Semester B.E. Degree Examination

ANALOG AND DIGITAL ELECTRONIC CIRCUITS

TIME: 03 Hours   **Max. Marks: 100**

Note: 01. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

		Module – 1	**Marks**	**L**	**C**
Q.1	**(a)**	Explain about the Half wave and Full Wave rectifier?	10	**L1**	**CO1**
	(b)	Define and explain about the RC coupled amplifier.	10	**L2**	**CO1**
		OR			
Q.2	**(a)**	Explain about the clipping and clamping Circuit write and write its equation.	10	**L2**	**CO1**
	(b)	Explain about the class A and Class B amplifier.	10	**L2**	**CO1**
		Module – 2			
	(a)	Draw and explain about the block diagram of Op-amp.	10	**L2**	**CO2**
Q.3	**(b)**	Explain about the non-inverting and inverting amplifier with circuit diagram	10	**L2**	**CO2**
		OR			
	(a)	Explain about the Schmitt triggers	10	**L3**	**CO2**
Q.4	**(b)**	Give the detail explanation of the Frequency response of an OPMAP	10	**L2**	**CO2**
		Module – 3			
Q.5	**(a)**	Draw and Explain about the decoder, encoder and multiplexer with the block diagram	10	**L2**	**CO3**

	(b)	Draw and explain about the Adders, subtractors and Binary comparators	10	**L3**	**CO3**
		OR			
Q.6	**(a)**	Explain about the Programmable Logic Devices	10	**L2**	**CO3**
	(b)	Explain about the Complex PLD, FPGA.	10	**L2**	**CO3**
		Module – 4			
	(a)	Define binary ladder Binary Ladders and explain briefly about the Binary Ladders.	10	**L2**	**CO4**
Q.7	**(b)**	Define Asynchronous and synchronous Counters? Explain about the ripple counter	10	**L2**	**CO4**
		OR			
Q.8	**(a)**	Explain Mathematical analysis of Recursive algorithm with an example.	10	**L3**	**CO4**
	(b)	Briefly explain about the D/A Accuracy, Resolution	10	**L2**	**CO4**
		Module – 5			
	(a)	Explain about the master slave SR flip-flops.	10	**L3**	**CO5**
Q.9	**(b)**	What is binary ripple counters explain.	10	**L3**	**CO5**
		OR			
Q.10	**(a)**	Explain about the master slave JK flip-flops	10	**L2**	**CO5**
	(b)	Explain about the synchronous binary counters	10	**L2**	**CO5**