

Paper Code - U239-135 (T1)

Scheme of Marks/ Solution

OCTOBER 2019 INSEM (T1)

S. Y. B.TECH. (Electronics & Telecommunication) (SEMESTER - III)

COURSE NAME: Digital System Design

COURSE CODE: ETUA21185

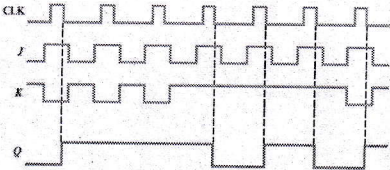
(PATTERN 2018)

Time: [1 Hour]

[Max. Marks: 20]

(*) Instructions to candidates:

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.
- 3) Use of scientific calculator is allowed.
- 4) Assume suitable data where ever required.

Q.NO	Sub Q.NO	Marking Scheme	Marks	Difficulty Level	Cognitive level	CO Mapped
Q1	a)	$Y = ABC\bar{D} + \bar{A}\bar{B} + \bar{B}\bar{C} + \bar{A}D + \bar{B}D$	[8]	H	Applying	CO1
	b)	$Y = (\bar{B} + C + D)(A + B + \bar{C})(A + B + \bar{D})$ --[2] $Y = \bar{A}\bar{B}\bar{C}\bar{D} + \bar{A}\bar{B}\bar{C}D + \bar{A}\bar{B}C\bar{D} + \bar{A}\bar{B}CD + \bar{A}B\bar{C}\bar{D} + \bar{A}B\bar{C}D + \bar{A}BC\bar{D} + \bar{A}BCD + A\bar{B}\bar{C}\bar{D} + A\bar{B}\bar{C}D + AB\bar{C}\bar{D} + ABCD$ --[2] $Y = BC + BD + A\bar{B} + \bar{B}\bar{C}\bar{D}$ --[2] Logic diagram --[2]	[8]	M	Applying	CO1
Q2	a)	Truth table ---[2] K-map with solution ----[4] Logic diagram-----[2]	[8]	M	Applying	CO2
	b)	Truth table ---[2] K-map with solution ----[4] Logic diagram-----[2]	[8]	M	Applying	CO2
Q3	a)		[4]	L	Analysing	CO3
	b)	Logic diagram----[2] waveform: ----[2]	[4]	M	Analysing	CO3