



SUB: Digital Design and Computer Organization

DATE: 10/10/2024

SUB CODE: BCS302

MAX. MARKS: 10

FACULTY NAME: PROF. AKSHATHA S.A

Sl.No	Questions	Marks	CO	BTL
1)	Design a combination with three input and one output. a) The output is 1 when the binary value of the input is less or equal to 2. The output is zero otherwise. b) The output is 1 when the binary value of is an even number.	1	CO2	R
2)	A certain combinational circuit use the output 1. If these input variable have more ones than zero the output is zero otherwise Design the above combinational circuit by finding the circuits TT, Boolean expression and logic diagram	1	CO2	R
3)	Differentiate between latch and flip flop.	1	CO2	U
4)	Obtain a minimum product of sum with a K-map $F(w,x,y,z)=x'z'+wyz+w'y'z'+x'y$	1	CO1	U
5)	Find the minimum sum of products for each function using K-map 1) $f1(a,b,c)= M0+M2+M5+M6$ 2) $f2(d,e,f)=\sigma m(0,1,2,4)$ 3) $f3(r,s,t)=rt'+r's'+r's$	1	CO1	R
6)	What is latch with a neat diagram explain SR latch using NOR gate.	1	CO2	R
7)	What is priority encoder, design 4 to 2 line priority encoder with diagram.	1	CO2	U
8)	Design and explain 4 bit adder with carry look ahead.	1	CO2	R
9)	Design BDC to excess 3 code converter.	1	CO2	R
10)	What is DE multiplexer? Design 9:1 mux using 2:1 MUX	1	CO2	R

