

Bearys Institute DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING of Technology ASSIGNMENT 1

SUB: Digital Design and Computer Organization SUB CODE: BCS302

MARKS: 10

DATE OF SUBMISSION: 10/10/2024 FACULTY NAME: PROF. AKSHATHA S.A

SI.No.	QUESTIONS	Marks	СО	BTL
1)	Decision and institution with the control of	1	CO2	D
1)	Design a combination with three input and one output.	1	CO2	R
	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.			
2)	A certain combinational circuit use the	1	CO2	R
	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			
3)	Differentiate between latches and flip flop.	1	CO2	U
4)	Obtain a minimum product of sum with a	1	CO1	U
	K-map			
	F(w,x,y,z)=x'z'+wyz+w'y'z'+x'y			
5)	Find the minimum sum of products for	1	CO1	R
	each function using K-map			
	1) $f1(a,b,c) = M0+M2+M5+M6$ 2) $f2(d,e,f) = sigma m(0,1,2,4)$			
	$3)f3(r,s,t)=rt^2+r^2s^2+r^2s$			
6)	What is latch with a neat diagram explain	1	CO2	R
	SR latch using NOR gate.			
7)	What is priority encoder, design 4 to 2 line	1	CO2	U
	priority encoder with diagram?			
8)	Design and explain 4 bit adder with carry	1	CO2	R
0)	look ahead.	1	CO2	R
9)	Design BDC to excess 3 code converter.			
10)	What is DE multiplexer? Design 9:1 mux using 2:1 MUX	1	CO2	R

Sample of Assignment Question Paper