

Course: B. Tech.

Branch : COMPUTER ENGG/CSE

Semester :IV

Subject Code & Name: BTES405 Digital Logic Design & Microprocessor

Max Marks: 60

Date: 27/08/2022

Duration: 3.45 Hr.

Instructions to the Students:

1. All the questions are compulsory.
2. The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in () in front of the question.
3. Use of non-programmable scientific calculators is allowed.
4. Assume suitable data wherever necessary and mention it clearly.

		(Level/CO)	Marks
Q. 1	Solve Any Two of the following.		12
A)	What is Signal? Write Characteristics of Digital Signals.	Analyzing	
B)	Explain Digital Gate with their types.	Understanding	
C)	Write short note on Error Detecting and Correcting Codes.	Applying	
Q.2	Solve Any Two of the following.		12
A)	Explain the working of Multiplexer and De-Multiplexer.	Understanding	
B)	Write and explain with example Don't care conditions.	Applying	
C)	Minimize the four-variable logic function using k-map. $f(A,B,C,D) = \sum m(0, 1, 2, 3, 5, 7, 8, 9, 11, 14)$	Applying	
Q. 3	Solve Any Two of the following.		12
A)	Design 3-bit synchronous up counter using JK flip flops	Applying	
B)	Convert S-R FLIP-FLOP TO J-K FLIP-FLOP.	Applying	
C)	Write and explain any two applications of flip-flop.	Understanding	
Q.4	Solve Any Two of the following.		12
A)	Comparison of 8-bit, (8085) 16-bit (8086), and 32-bit microprocessors (80386)	Understanding	
B)	Draw and explain 8086 Internal Block Diagram.	Understanding	
C)	Write short note on Memory .	Understanding	
Q. 5	Solve Any Two of the following.		12
A)	Explain different type of Addressing modes of 8086.	Analyzing	
B)	Write different Data transfer instructions.	Analyzing	
C)	Write short note on Assemblers and compilers	Understanding	

*** End ***