Mahatma Gandhi Mission University
Jawaharlal Nehru Engineering College, Aurangabad.
Class: TY (Elecrical & Comp.) CA-II (2023-24) Part-II

Subject:Industrial Automation **Subject Code - 21UEE605E**
Max Marks: 10 **Duration: 30 Min.**

N.B.:- Solve any two questions.

Sr. No.	Question	Marks	CO
1	What are various communication standards applied in Automation system.	05	CO2
2	Explain the features of SCADA System.	05	CO2
3	Describe the Direct digital control.	05	CO1
4	With proper figure explain Data Logger.	05	CO2

15 MAY 2024/TY/EE/2023-24/P2/CA-2

MGM University
Jawaharlal Nehru Engineering College

EXAM: CA-2 (2023-24) Part-II

Class: TY (ECE)
Subject: Power Electronics (PE)

Max Marks: 10
Duration: 30 Minutes

N.B.:- Solve any Two Questions.

Q.No.	Question	Marks	CO	BL
1	Draw and explain 3-Phase inverter.	05	4	1
2	Describe the 1-Phase full bridge inverter.	05	4	1
3	Draw and explain the current source inverter	05	4	1
4	Draw and describe the series inverter	05	4	1

********** Technology is best when it brings people together **********

15 MAY 2024 / TY/EE/2023-24/P2/CA-2

MGM University
Jawaharlal Nehru Engineering College

EXAM: CA-2 (2023-24) Part-II

Class: TY (E&CE)
Subject: Digital Signal Processing (PE)

Max Marks: 10
Duration: 30 Minutes

N.B.:- Solve any Two Questions.

Q.No.	Question	Marks	CO	BL
1	Illustrate the properties of Discrete Fourier Transform	05	3	3
2	Explain the properties of Z Transform	05	3	2
3	Obtain Inverse Z Transform of , $X(Z)= 1/(1-1.5z^{-1}+0.5z^{-2})$	05	3	4
4	Solve using circular convolution, $X_1(n)= \{2\ 1\ 2\ 1\}$, $X_2(n)= \{1\ 2\ 3\ 4\}$	05	3	4

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15 MAY 2024/TY-EE-2023-24-P2-CA2

MGM's Jawaharlal Nehru Engineering College

CA-2 Examination

e: T.Y.B. Tech Electrical Engineering Sem: VI Subject: Digital Image Processing
ct Code: 20UEE608E Marks: 10 Duration:-30 min
Solve any two.

	Questions	CO	BL	Mk
	The original image is 256x256 pixels, single-band grayscale),8-bits per pixel. This file is 65,536 bytes (64k). After compression the image file is 6,554 bytes. Calculate compression ratio.	C04	L3	5
	Explain all steps of HUFFMAN compression algorithm with an numeric example.	CO4	L2	5
	What is image compression? Explain any four variable length coding compression schemes	C03	L2	5
	Explain about Image compression model?	CO4	L2	5
	What is data redundancy? Explain three basic data redundancy?	CO4	L2	5

15 MAY 2024 - TY-EE-2023-24-P2-CA-2

MGM University University
Jawaharlal Nehru Engineering College,
Chhatrapati Sambhajinagar

Class: Third Year ECEx **Class Test:** CA2 **Date:** 04-04-2024 **Total Marks:** 10

Subject: Artificial Intelligence

Sr. Q1	Solve any two of the following Questions (5 Marks)	CO	Level
1.	1 "L. = ['yellow', 'red', 'blue','violet', 'green', 'black'], what will the statement: L[2:4] return?" (a) ['red', 'blue', 'green'] (b) ['blue', 'green', 'black'] (c) ['yellow', 'red'] (d) ['blue', 'violet'] 2. What is the use of "halt" inbuilt predicated? (a) used to suspend the prolog system. (b) used to terminate the Prolog system. (c) used to resume the prolog system. (d) None of above 3. Prolog is not a strongly typed language (a) TRUE (b) FALSE 4. The scope of a variable in Prolog is a single clause (i.e., a fact or rule) or a single query. (a) TRUE (b) FALSE 5. "Unification is transitive (i.e., assuming that t1, t2 and t3 are arbitrary Prolog terms, if t1 unifies with t2 and t2 unifies with t3 then t1 must unify with t3. " (a) TRUE (b) FALSE	CO4	3
2.	Name some data types of prolog and explain how backtracking is done in prolog language.	CO3	2
3.	Why do we use prolog language? Name the areas in which prolog is used.	CO4	3

----------End----------

15 MAY 2024 - TY- EE- 2023- 24- P2- CA-2