MGM University, Jawaharlal Nehru Engineering College, Chhatrapati Sambhajinagar
CA-1 Examination

Class: SY-B. Tech (All) Sem: IV
Course Code: 20UCC401B Max.Marks:10
Course Name: Engineering Statistics Date:02.02.2024 Time:10.00 -10.45

Read the instructions carefully.

1. Use of nonprogrammable calculator is allowed.
2. Digits on right hand side indicate the marks.

Q.1 Solve any **Two** questions.

A) A car travels 25 miles at 25 miles per hour (mi/h), 25 miles at 50 mph, and 25 miles at 75 mph. Find the arithmetic mean of the three velocities and the harmonic mean of the three velocities. Which is correct? **(5M)**

B) The points given to the students belonging to two management institutes on the overall performance in a year are as follows: **(5M)**

Institute A	60	64	75	82	48	66	81	92	44	80
Institute B	70	65	54	72	80	68	79	77	71	74

The performance of which management institute is more consistent (Use coefficient of variation)? Which management institute has higher level of performance?

C) The first four moments of a distribution about the value 5 of the variable are 2, 20, 40 and 50. Show that the mean is 7. Also find the other moments, $\beta 1$ and $\beta 2$. **(5M)**

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MGM University, Jawaharlal Nehru Engineering College
CA-I (2023-24) Part-II

Class: SY (EC&CE) **Max Marks: 10**
Subject: Signals and Systems **Duration: 45 Minutes**

N.B.: - **Solve any two questions.**

Sr.No.	Question	Marks	CO	BL
1	Define following standard test signals mathematically and graphically. a. Unit impulse b. Unit Step c. Unit Ramp d. Exponential e. Rectangular Pulse	05	CO1	1
2	Find the power of signal $x(t) = A\sin\omega t$.	05	CO1	2
3	Compare and contrast: Energy and Power signals.	05	CO1	1
4	Find the even component of the signal given by, $x(t) = 1$ for $0 < t < 1$ $= 0$ elsewhere	05	CO1	2

MGM University, Jawaharlal Nehru Engineering College
CA-I (2023-24) Part-II

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CA-I (2023-24) Part-II

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11 MAR 2024 SY/EC&CE/CA-I/II/23-24 (ECT)

MGM UNIVERSITY
J.N.E.C. AURANGABAD
DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION
S.Y(AI&DS & ECE)
Year: 2023-24 (Semester -III)

Course Code: 22UET403D, 21UET403D Microprocessors and Microcontrollers
TEST: CA I Max Marks: 10 Time: 45 Minutes Date: 02.02.2024
N.B.
(I)Solve any two questions.
(II)Each question carries equal marks.
(III)Assume suitable additional data if necessary.

Q.No.	Questions	Level	CO
1	Compare Harvard and Von Neuman architecture.	L1	1
2	How you will demultiplex the multiplexed address- data bus AD0 –AD7 in 8085 microprocessor?	L1	1
3	What is 8085 programming model? Explain in detail.	L1	1
4	What are different addressing modes available in 8085? Explain with the help of instructions under each mode.	L1	1

MGM UNIVERSITY
J.N.E.C. AURANGABAD
DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION
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11 MAR 2024 SY-EC&CE-CA-I-II-23-24

MGM University, Aurangabad
Jawaharlal Nehru Engineering College
CA-I (2023-24) Part-II

Class: SY (EC&CE) **Max Marks: 10**
Subject: Analog and Digital Communication **Duration: 45 Minutes**

N.B.: - **Solve any two questions.**

Sr.No.	Question	Marks	CO	BL
1	With neat schematic block diagram, explain the operation of electronic communication system.	05	CO1	1
2	Sketch an electromagnetic spectrum. Enlist the application of each band.	05	CO1	2
3	Define modulation? Explain the necessity of modulation.	05	CO1	2
4	What is multiplexing? What are its types? Explain any one in detail.	05	CO1	1

MGM University, Aurangabad
Jawaharlal Nehru Engineering College
CA-I (2023-24) Part-II

Class: SY (EC&CE) **Max Marks: 10**
Subject: Analog and Digital Communication **Duration: 45 Minutes**

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MGM University, Aurangabad
Jawaharlal Nehru Engineering College
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11 MAR 2024 SY/EC&CE/CA-I/II/23-24 (CECT)

MGM UNIVERSITY
J.N.E.C. AURANGABAD
Department of Electronics &Telecommunication
S.Y.- B.TECH. ECE/AIDS
Year: 2023-24 (Semester -IV) Part II

Course : Object oriented Programming. TEST: CA I
Max Marks: 10 Time: 45 Minutes Date:03 /02/24

N.B.
(I)Solve any two questions.
(II)Each question carries equal marks.
(III)Assume suitable additional data if necessary.

Q.NO	Questions	Level	CO
1	Write a program in C++ to display Hello word and explain significance of each statement	L1	1
2	Explain need of object oriented programming	L1	1
3	Write a program in c to add two integer numbers, input data from user	L1	1
4	Write any five keywords used in c++ and explain it	L2	1

MGM UNIVERSITY
J.N.E.C. AURANGABAD
Department of Electronics &Telecommunication
S.Y.- B.TECH. ECE/AIDS
Year: 2023-24 (Semester -IV) Part II

Course : Object oriented Programming. TEST: CA I
Max Marks: 10 Time: 45 Minutes Date:03 /02/24

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(I)Solve any two questions.
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MGM UNIVERSITY
J.N.E.C. AURANGABAD
Department of Electronics &Telecommunication
S.Y.- B.TECH. ECE/AIDS
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11 MAR 2024 SY/EC&CE/CA-I/II/23-24 EC