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School of Computing Science and Engineering**Master of Computer Applications
Mid Term Examination - Nov 2023****Duration : 90 Minutes
Max Marks : 50****Sem I - E1PA102T - Computer Organisation and Architecture**General Instructions*Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

- 1) Perform the Binary addition of the of the Following Binary Numbers: 1111011 and 1111111 K2 (2)
- 2) Write the Binary Form of the Mentioned Decimal Nunmbers: a) 2435 K1 (3)
b) 4567
- 3) Explain the operation of three state bus buffers and show its use in design of common bus. K2 (4)
- 4) Explain and draw the Block diagram of the Basic Computer System in computer architecture K2 (6)
- 5) Explain the Encoder and Decoder in the Computer Architecture with the help of the Block Diagram. K3 (6)
- 6) Compare and contrast the different types of registers in computer organization along with their functions? K3 (9)
- 7) Simplify the Below Expression: $X'Y'Z'(X'Y' + XYZ') + (X'Y' + XY) ((XY)' + 1)$ K4 (8)
- 8) a) Explain and create the Block diagram of the simple bus system. b) Explain in detail how it facilitates data transfer between components K4 (12)

OR

- A) Write the Instruction for the Addition of the Two Number. B) Explain the Program Coounter. How Program counter keeps the Track of the program. Explain with the help of Example. K4 (12)