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**School of University Polytechnic**

Diploma in Computer Science and Engineering

Mid Term Examination - Nov 2023

Duration : 90 Minutes

Max Marks : 50

**Sem III - N1DF302B - Operating System**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) Explain the concept of multi-programming and its benefits. K2 (2)
- 2) Define batch processing in operating systems. K1 (3)
- 3) Define time-sharing in the context of operating systems. K2 (4)
- 4) Explain the evolution of operating systems from their initial stages to modern systems, highlighting significant developments. K2 (6)
- 5) Write a description of the evolution of operating systems, starting from early computers to modern systems. K3 (6)
- 6) Illustrate the concept of multi-processing using an example from a modern computer system. K3 (9)
- 7) Compare and contrast the characteristics of a distributed operating system and a network operating system. K4 (8)
- 8) Analyze the benefits and challenges of implementing a multi-tasking system in comparison to a single-tasking system. K4 (12)

**OR**

- Create a diagram illustrating the layered structure of an operating system and label each layer with its corresponding functions. K4 (12)