

**TEST DKT 221 (OPERATING SYSTEM PRINCIPLE)**

**Time : 2 hours**

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- 2020
- 1) Describe the two general roles of an operating system. [4 Marks]
  - 2) Elaborate why these roles are important. [4 Marks]
  - 3) Explain THREE differences between CLI and GUI [4 Marks]
  - 4) Describe Five advantages of Open Source Operating System compare to Microsoft windows. [5 Marks]
  - 5) List FIVE Command line in Linux and explain the purpose of each command line. [5 Marks]
  - 6) Explain SEVEN Services provided by Operating System to User and give example for each service. [7 Marks]
  - 7) Describe the three state process model, describe what transitions are valid between the three states, and describe an event that might cause such a transition. [5 Marks]
  - 8) What is a process? What are attributes of a process? [4 Marks]

9) Briefly explain:-

- i) Process.- instruction sent to register to be executed by CPU
  - ii) Process Schedule. – schedule of process executed by CPU, will be arrange using scheduling
  - iii) Multiprogramming. – multiple program run at one time
  - iv) Multithreading. – a process that have more than one threads at one time
- [8 Marks]

10) Draw Process Control Block Diagram and explain the information in the PCB

[4 Marks]

11) Draw a block diagram of process state and explain each state of the process.

[4 Marks]

12) Give TWO (2) different of user mode and kernel mode in operating system.

[2 Marks]