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**KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**UNIVERSITY EXAMINATION, 2017/2018 ACADEMIC YEAR**  
**DIPLOMA IN BUSINESS INFORMATION TECHNOLOGY**

**DBT 1104 - OPERATING SYSTEMS**

Date: 1<sup>st</sup> August, 2017.  
Time: 3.00pm – 5.00pm

**INSTRUCTIONS TO CANDIDATES**

**ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS**

**QUESTION ONE (30 MARKS)**

- a) A firm should incorporate various operating systems when integrating innovation and more so technology should not be left out. Discuss the various operating systems that help the firm integrate innovation (10 Marks)
- b) An operating system is a program that acts as an interface between the user and the computer hardware. Discuss this statement (4 Marks)
- c) Distinguish the following:
- i. Processor management and File management (6Marks)
  - ii. Memory management and Device management (6Marks)
- d) Briefly differentiate between job accounting and error handling as activities of the operating systems (4 Marks)

**QUESTION TWO (20 MARKS)**

- a) Write short notes on the following
- i. Batch operating systems (5 Marks)
  - ii. Time sharing operating systems (5 Marks)
- b) Outline each of their advantages and disadvantages (10 Marks)

**QUESTION THREE (20 MARKS)**

- a) Technology has brought more harm than good. Discuss this statement (10 Marks)
- b) An Operating System provides services to both the users and to the programs. Discuss the common services provided by operating systems. (10 Marks)

**QUESTION FOUR (20 MARKS)**

- a) Discuss various properties of an Operating System. (8 Marks)
- b) Explain the various security threats that affect the computer's operating system and security mechanism that should be put in place to prevent the threats (12 Marks)

**QUESTION FIVE (20 MARKS)**

- a) Discuss four major scheduling algorithms that facilitate the process of scheduling as carried by the operating system (10 Marks)
- b) Explain three types of schedulers that enhance process scheduling as well as their differences (10 Marks)