CHUKA   **UNIVERSITY**

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF

BSIS 352: OPERATING SYSTEMS THEORY

STREAMS: **TIME: 2 HOURS**

DAY/DATE: THURSDAY 06/12/2018   **2.30 P.M – 4.30 P.M**

INSTRUCTIONS
- **Answer question one and any other two questions**

1.   (a) Define an operating system and its main tasks in a computer.   [2 marks]

        (b) Examine four (4) activities of an operating system in memory management. [4 marks]

        (c) Discuss distributed operating system and its advantages.   [6 marks]

        (d) Explain error handling in an operating system.   [2 marks]

        (e) Explain what you understand by process life cycle and its activities.   [6 marks]

        (f) Discuss process scheduling queue and the activities maintained by OS. [6 marks]

        (g) Explain four differences between a process and a thread in OS.   [4 marks]

2.   (a) Discuss the four differences between user-level and Kernel level thread.

                                                                        [8 marks]

        (b) Discuss three types of memory address and their description.   [6 marks]

        (c) Discuss three (3) primary components of linux operating system.   [6 marks]

3.   (a) Describe four (4) levels of security classifications in a computer trusted system.

                                                                        [12 marks]

        (b) When a program is loaded into the memory and it becomes a process, it can be
        divided into four sections, discuss the sections.   [8 marks]

4.   (a) Briefly explain seven (7) important features of linux operating system. [14 marks]

(b) Explain three (3) ways in which operating system identified and authentices its users.

[6marks]

5.   (a) Space allocation is very important activity in computers, discuss three ways in which operating system allocates space.   [12 marks]

(b) Discuss two (2) memory allocation and two fragmentation and their description.

[8 marks]