GRETSA UNIVERSITY - THIKA

UNIVERSITY EXAMINATIONS

JANUARY - APRIL 2021 SEMESTER

CERTIFICATE IN INFORMATION TECHNOLOGY

COURSE CODE: CFIT 016

COURSE TITLE: BASIC CONCEPTS OF OPERATING SYSTEMS

DATE: 10 MAY 2021   **TIME: 8.00 AM - 10.00 AM**

INSTRUCTIONS TO CANDIDATES

1. SECTION A IS **COMPULSORY.**
2. SECTION B: ANSWER ANY OTHER **THREE** QUESTIONS.
3. **DO NOT** WRITE ANYTHING ON THIS QUESTION PAPER AS IT WILL BE AN EXAM IRREGULARITY.
4. ALL ROUGH WORK SHOULD BE AT THE BACK OF YOUR ANSWER BOOKLET AND CROSSED OUT.

SECTION A: COMPULSORY
QUESTION ONE

a) Outline the three features of the operating system. **[6 Marks]**

b) List four examples of Operating Systems. **[4 Marks]**

c) Discuss functions of Operating Systems. **[6 Marks]**

d) Discuss the history of Operating Systems, from the first generation to the fourth generation.

[8 Marks]

e) Explain these Operating System services to the users.

    a. Program Execution. [2 Marks]

    b. Manipulation of File System. **[2 Marks]**

    c. Resource Allocation. **[2 Marks]**

    d. Information and Resource Protection. **[2 Marks]**

f) Explain three Advantage of using Operating System **[6 Marks]**

g) Define an operating system. **[2 Marks]**

SECTION B: ANSWER ANY THREE QUESTIONS
QUESTION TWO

a) Define and describe the term Kernel in Operating System. **[4 Marks]**

b) Give and explain the functions of a Kernel. **[10 Marks]**

c) State and Explain types of kernel. **[6 Marks]**

QUESTION THREE

a) What is a firmware? **[2 Marks]**

b) Explain where firmware is used in daily life example. **[10 Marks]**

c) Explain four examples of firmware. **[8 Marks]**

QUESTION FOUR

a) Give and explain the difference between operating system and firmware. **[10 Marks]**

b) Discuss difference between 32Bit and 64Bit Operating System. **[10 Marks]**

QUESTION FIVE

a) Define term process scheduling. **[2 Marks]**

b) Give two state process model. **[2 Marks]**

c) Explain three types of schedulers. **[6 Marks]**

d) Describe process scheduling queues. **[10 Marks]**