



(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS 2021 /2022 ACADEMIC YEAR

SPECIAL /SUPPLEMENTARY EXAMINATIONS YEAR ONE SEMESTER TWO EXAMINATIONS

FOR THE DEGREE OF BACHELOR OF SCIENCE COMPUTER SCIENCE

COURSE CODE : KUC112

**COURSE TITLE : FUNDAMENTALS OF
COMPUTING**

DATE: 20 /07/2022 TIME: 11:00 A.M – 01:00 P.M

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO.

QUESTION ONE (COMPULSORY) [30 MARKS]

a) Differentiate the following terminologies as used in computing

(i) Data and Information **[2 marks]**

(ii) Bit and Byte **[2 marks]**

(iii) Hard copy and Soft copy **[2 marks]**

b) Match the computer generation with the approximate time and technology used to design the processor.

[4 marks]

Generation	Approximate Time	Technology
Third		
First		
Fourth		
Second		

c) Identify and explain the classification of Computers based on the principle of functionality (i.e. physical size, performance and application areas). **[7 marks]**

d) Today information comes in different forms despite the fact that the computer system only understands the language of 0s and 1s. Outline any Four (4) forms of data representation accepted by the computer system. **[2 marks]**

e) Identify any Three utility programs that are preinstalled in most operating systems. **[3 marks]**

f) Distinguish between local-area networks and wide-area networks clearly identifying the application areas of each with regard to Kibabii University College. **[4 marks]**

g) Convert the following numbers as indicated:

i. 41.6875_{10} to Binary **[2 marks]**

ii. 41.6875_{10} to Hexadecimal **[2 marks]**

QUESTION TWO [20 MARKS]

- a) Distinguish between the following terms.
- Hardware and Software [2 marks]
 - Desktop Operating System and Network Operating System [2 marks]
 - RAM and ROM [2 marks]
- b) State and explain THREE types of buses used in a computer system. [3 marks]
- c) Outline three functions of the central processing unit (CPU). [3 marks]
- d) The Scanner is an optical device that can input any graphical matter and display it back. State any Two optical scanner devices. [2 marks]
- e) State any Three Variation of ROM. [3 marks]
- f) State any three types of secondary storage media. [3 marks]

QUESTION THREE [20 MARKS]

- a) What is multitasking as used in operating systems platforms? [2 marks]
- b) Distinguish between system software and application software [4 marks]
- c) Operating system is the most important program for computer systems. Discuss any Five functions of the operating system in a computing environment. [10 marks]
- d) Outline Four types of operating systems commonly used today. [2 marks]
- e) State Four example of programming languages. [2 marks]

QUESTION FOUR [20 MARKS]

- a) Distinguish between the following network terminologies
- Computer network and Internet [2 marks]
 - Intranet and extranet [2 marks]
 - Internet and World Wide Web [2 marks]
- b) Discuss any Four advantages of computer networks in Kibabii University College finance department. [8 marks]

- c) A network topology is the layout of the interconnections of the nodes in a computer network. Discuss any Two network topologies clearly identifying the advantages and disadvantages of each.

[6 marks]

QUESTION FIVE [20 MARKS]

- a) What is a computer virus?
b) Explain four ways of protecting the computers from viruses.
c) Discuss Five application areas of computers.
d) State Three internet service providers in Kenya today.

[2 marks]

[4 marks]

[10 marks]

[4 marks]