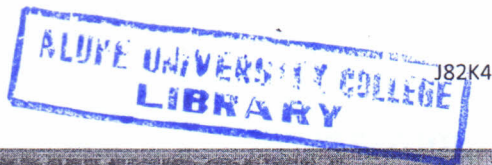


MSE 101



ALUPE UNIVERSITY COLLEGE
... Bastion of Knowledge ...

P. O. Box 845-50400 Busia(K)
principal@auc.ac.ke
Tel: +254 741 217 185
+254 736 044 469
off Busia-Malaba road

**OFFICE OF THE DEPUTY PRINCIPAL
ACADEMICS, STUDENT AFFAIRS AND RESEARCH**

UNIVERSITY EXAMINATIONS

2017/2018 ACADEMIC YEAR

FIRST YEAR FIRST SEMESTER EXAMINATION

**FOR THE DEGREE OF BACHELOR
OF SCIENCE IN COMP. SCIENCE/
PHYSICAL THERAPY/
MED.PSYCHOLOGY/MED. LAB
SCHOOL: HEALTH SCIENCES/SCIENCE
COURSE CODE: MSE 101**

**COURSE TITLE: INFORMATION AND
COMMUNICATION TECHNOLOGY IN LEARNING**

DATE: 14th December, 2017 TIME: 9.00am-12.00pm

INSTRUCTION TO CANDIDATES : SEE INSIDE

THIS PAPER CONSISTS OF 20 PRINTED PAGES

For examiner's Use Only

Question	I.E	E.E
CAT		
EXAM		
TOTAL		

PLEASE TURN OVER

Insert the numbers of the questions you have answered in the order done

--	--	--	--	--	--	--	--	--	--	--	--

Student Admission No.....Exam Card No.....Signature.....

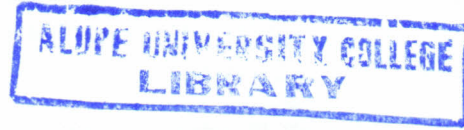
INSTRUCTIONS TO CANDIDATES

1. Write your **Admission Number**, **Exam Card Number** and **Sign** in the spaces provided at the bottom of each page of the Examination Booklet. **DO NOT** write your name anywhere in this booklet.
2. Write on both sides of the pages.
3. All rough work must be done in the Answer sheets and crossed through.
4. If supplementary pages are used, they must be fastened all together at the end of this Booklet. Supplementary pages should be used only after all the leaves in the booklet have been exhausted.
5. It is a serious examination offence to cheat or to have unauthorized materials including **MOBILE PHONES** (whether on or off) in the examination venue.
6. In no circumstances must Answer Booklet used or unused, be removed from the examination room by a candidate.
7. The Booklet is for **Examination use only** in a designated examination room. Unauthorized possession of the Answer sheets by a student or any other person constitutes an examination irregularity calling for stiff disciplinary action.
8. Do not pluck any page from this Booklet. Any extra/unused answer sheets should be returned to the **Examination Office**.
9. Candidates who come to examination room 30 minutes late will not be allowed to sit for the exam.
10. Candidates will not be allowed to leave the exam room once the exam commences.
11. Candidates are advised that importance is attached by examiners to accuracy and clarity of expression.
12. Committing any form of irregularity is prohibited and shall attract severe disciplinary action in accordance with Alupe University College Examination Regulations.

Student Admission No.....Exam Card No.....Signature.....

INSTRUCTIONS

- *Attempt all QUESTION in section A (compulsory) and any other THREE questions in section B*
- *Please start each question on a new page clearly indicating the question number and complete the question grid on your answer booklet*

**SECTION A (24 MARKS) COMPULSORY****QUESTION ONE (12 Marks)**

- (a) Explain the role of the POST during the booting process (4Marks)
- (b) List four (4) ways in which computer applications can be used in health sciences and research (4Marks)
- (c) Provide a definition of virtual reality (1 Marks)
- (d) Distinguish between system software, program software and application software (3 Marks)

QUESTION TWO (12 Marks)

- (a) Definition the following terms
- (i) Hardware (ii) Software (iii) Storage (iv) Information processing Cycle
- (v) user (5 Marks)
- (b) Outline three (3) advantages offered by databases to hospital management (3 Marks)
- (c) Determine the number of bytes that can be found in a kilobyte, megabyte, gigabyte and terabyte respectively (4 marks)

SECTION B (36 MARKS) ATTEMPT ANY THREE QUESTIONS**QUESTION THREE (12 Marks)**

- (a) List five 5 benefits of Computer Use in Health Care Systems (5 Marks)
- (b) (i) State the role of an EKG monitor (3marks)
- (ii) State in full the meaning of the acronym CAS systems (2 marks)
- (c) Provide a brief description of telemedicine (2Marks)

Student Admission No.....Exam Card No.....Signature.....

QUESTION FOUR (12 Marks)

- (a) Describe the type of computers available in the market (6Marks)
- (b) List the six (6) guiding principles to selecting software packages (6Marks)

QUESTION FIVE (12 Marks)

Discuss six factors that affect the processing speed of a microcomputer system (12 Marks)

QUESTION SIX (12 Marks)

- (a) Discuss the concept of Telehome care (4 Marks)
- (b) List the four main functions of BIOS (4 Marks)
- (c) Differentiate between a serial port and a parallel port (4 Marks)

QUESTION SEVEN (12 MARKS)

- (a) List the two (2) types of technology that can be employed in telemedicine (4 Marks)
- (b) Outline 10 ways in which virtual reality is revolutionizing medicine and healthcare (5Marks)
- (c) State three advantages of using computers in the medical field (3 marks)

Student Admission No.....Exam Card No.....Signature.....