



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
INFORMATION SYSTEMS
1ST YEAR 1ST SEMESTER 2016/2017 ACADEMIC YEAR
MAIN CAMPUS

COURSE CODE: IIT 3111

COURSE TITLE: INTRODUCTION TO COMPUTER SYSTEMS

EXAM VENUE: STREAM: BIS/ICT/Forensics

DATE: EXAM SESSION:

TIME:

INSTRUCTIONS

- 1. Answer Question 1 (Compulsory) and ANY other TWO questions**
- 2. Candidates are advised not to write on the question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

Question 1 [30 marks]

- a) Define the following terms as used in computer programming.
 - i) Program (2 marks)
 - ii) Data (2 marks)
 - iii) PROM (2 marks)
 - iv) System (2 marks)
 - v) Peripheral (2 marks)
- b) What is the Octal (base 8) equivalent for CF_{16} ? (3 marks)
- c) Differentiate between volatile and non volatile memory giving examples of each (4 marks)
- d) Describe how the following data input devices works
 - i) Punch cards (3marks)
 - ii) Bar code reader (3marks)
- e) Differentiate between Multiprocessing and multiprogramming (4 marks)
- f) With an example of each describe: Programming language and translator (3 marks)

Question 2 [20 marks]

- a) What are the disadvantages of a computer network? (3 marks)
- b) What is magnetic tape and how is it different from a magnetic disk? (5 marks)
- c) Discuss briefly 3 topologies of a network (6 marks)
- d) Convert the following numbers into Decimal (6 marks)
 - i. 1101102
 - ii. 25738
 - iii. 2AD16

Question 3 [20 marks]

- a) Briefly discuss the generations of computers (10 marks)
- b) Describe how an ink jet printer works (3 marks)
- c) With a use of diagram explain the fetch execute cycle (7 marks)

Question 4 [20 marks]

- a) What is an operating system (2 marks)
- b) Discuss 4 major functions of an operating system. (8 marks)
- c) Differentiate between an Intranet and Internet (4 marks)
- d) Define Register? Briefly describe 2 commonly used registers in computer system (6 marks)

Question 5 [20 marks].

- a) What are the steps involved in program development in their order? **(8 marks)**
- b) Explain 1 Dos internal commands and 1 dos external commands **(4 marks)**
- c) Discuss briefly spooling and batch processing **(4 marks)**
- e) Discuss the utility software and system software. **(4 marks)**