**W1-2-6-1-6**

JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

# **UNIVERSITY EXAMINATIONS 2014/2015**

**FIRST YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY**

**BIT 2102 : COMPUTER SYSTEMS AND ORGANIZATION**

**DATE: AUGUST 2015 TIME: 2 HOURS**

**INSTRUCTIONS:**

 **ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS**

**QUESTION ONE**

1. Explain briefly four main functions of a computer. [4 marks]
2. Discuss four advantages of non-impact printers over impact printers. [4 marks]
3. A friend requires your opinion before he can purchase a printer. Discuss three requirements he must have in mind before selecting a printer to purchase. [6 marks]
4. Differentiate between octal number system and the hexadecimal number system. [4 marks]
5. Add the following 1578 + 1368 =…………… ]2 marks]
6. Describe computer classification according to purchase, data handled or functionality and according to capacity. [10 marks]

**QUESTION TWO**

1. Distinguish between TFT and LCD monitors. [4 marks]
2. Discuss five functions of a desktop operating system. [10 marks]
3. Subtract the following hexadecimal numbers. [2 marks]

E71D16 - B39F16= …………………. [2 marks]

1. Explain how you can differentiate between static RAM and Dynamic RAM. [4 marks]

**QUESTION THREE**

1. Describe three ways the computer can process information [6 marks]
2. Explain three user interfaces used to describe how a computer uses interacts with a computer. [6 marks’
3. The main memory is a major component of a computer system. Describe four uses/functions of the main memory. [4 marks]
4. Add : 001112 + 11112 + 0012 =……………. [2 marks]
5. Identify two components of a mother board. [2 marks]

**QUESTION FOUR**

1. List and explain three types of job scheduling schemes. [6 marks]
2. Give four differences between magnetic disks and magnetic tapes. [4 marks]
3. Identify six components tested during POST. [6 marks]
4. Differentiate between cache and register. [4 marks]

**QUESTION FIVE**

1. In a bus interconnection structure, explain how the following are used
2. Control line
3. Address line
4. Data line [6 marks]
5. Briefly discuss the functions of 1/0 module [2 marks]
6. List three brand classification of external /peripheral devices , giving one example for each. [6 marks]