



TECHNICAL UNIVERSITY OF MOMBASA

INSTITUTE OF COMPUTING AND INFORMATICS

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR:

DICT/JAN/2019

ECS 2105: COMPUTER SUPPORT AND MAINTENANCE

END OF SEMESTER EXAMINATION

SERIES: AUGUST 2019

TIME: 2 HOURS

DATE: Pick Date Aug 2019

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

Do not write on the question paper.

Question ONE (30 marks)

- a) Explain the following terms:
 - i. Disk formatting
 - ii. Basic Input/output System
 - iii. Hardware Compatibility
 - iv. Cold Booting
 - v. Fault diagnosis

(10 marks)
- b) Using relevant examples, distinguish between internal port and external ports of a PC. **(8 marks)**
- c) List three requirements when upgrading a CPU. **(3 marks)**
- d) Explain **four** reasons why you need a new hard drive in a PC. **(4 marks)**
- e) Explain the functions of the Northbridge and southbridge in a motherboard. **(3 marks)**
- f) State two factors to be considered when selecting a upgrading a new motherboard. **(2 marks)**

Question TWO (15 marks)

- a) Explain **five** recommendations on how to do preventive maintenance and troubleshooting on personal computers. **(10 marks)**
- b) Explain the procedures on how to mount a disk volume in Window 8.x and above. **(5 marks)**

Question THREE (15 marks)

- a) Understanding the boot process in Windows can help a technician troubleshoot boot problems. Briefly explain windows booting process. **(10 marks)**
- b) Explain **five** roles and responsibilities of IT professional. **(5 marks)**

Question FOUR (15 marks)

- a) Discuss the following system maintenance. **(10 marks)**
 - (i) System Backup and restore
 - (ii) System hardware diagnostic tools
 - (iii) Anti-virus.
- b) Building a Home Theater Personal Computer (HTPC) requires specialized hardware to deliver a high-quality viewing experience for the customer. Explain the considerations of the following hardware when building HTPC. **(5 marks)**
 - i. Specialized power supply
 - ii. HDMI output
 - iii. TV tuners and cable cards
 - iv. Surround Sound
 - v. Specialized hard drive

Question FIVE (15 marks)

- a) A technician should understand the process and terms relating to hard drive setup. Explain the following terms. **(10 marks)**
 - i. Primary partition.
 - ii. Active partition.
 - iii. Extended partition
- b) You are a computer tech savvy at Elaf Homely Meals Company. Your senior technician has reported a printer printed with unknown characters. Briefly explain two probable causes and two possible solutions. **(5 marks)**