



TECHNICAL UNIVERISTY OF MOMBASA

# Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

DIPLOMA INFORMATION COMMUNICATION TECHNOLOGY (DICT 14S/-EV)

**ECS 2105: COMPUTER SUPPORT & MAINTENANCE**

END OF SEMESTER EXAMINATION

**SERIES: APRIL 2015**

**TIME: 2 HOURS**

**Instructions to Candidates:**

You should have the following for this examination

- *Answer Booklet*

This paper consists of **FIVE** questions.

Attempt question **ONE (Compulsory)** and any other **TWO** questions  
Maximum marks for each part of a question are as shown  
This paper consists of **TWO** printed pages

### Question One (Compulsory)

- a) Explain operating system concepts and provide examples for each. **(8 marks)**
- b) What do you understand by the term compatibility mode **(2 marks)**
- c) A network operating system has a number of characteristics, explain them **(6 marks)**
- d) A desktop operating system has the following characteristics, explain them **(4 marks)**

### Question Two

- a) What is software customization of software **(2 marks)**
- b) Briefly explain the **THREE** levels of software customization **(8 marks)**
- c) Briefly in step point show the procedure of windows 7 installing operating systems (OS) **(5 marks)**
- d) Discuss **FIVE** factors to consider before operating system installation. Identify hard drive set up procedures **(5 marks)**

### Question Three

- a) The operating system manages the interaction between applications and the hardware. **(4 marks)**
- b) Discuss **THREE** interaction modes between the user and computer operating system **(4 marks)**
- c) Differentiate the following system software and state their functions **(8 marks)**
  - (i) A device driver and registry files
  - (ii) Operating systems and application programs
  - (iii) Multi-tasking and multi-processing
  - (iv) Multi-threading and processor scheduling

All modern CPUs can run in different modes of operation. Explain the following running mode. **(8 marks)**

- (i) Real mode
- (ii) Protected mode
- (iii) Virtual Real mode
- (iv) Compatibility mode

### Question Four

- a) There are three distinct types of operating systems, desktop operating system, network operating systems and mobile operating system. Explain the key characteristics of each operating system **(10 marks)**
- b) Determine the suitability of an operating system based on customer needs. Explain **FIVE** factors to consider before installation. **(5 marks)**
- c) Briefly discuss any **FIVE** functions of operating system **(5 marks)**

### Question Five

- a) Discuss different booting mode in windows, pressing the F8 key during the boot process. **(10 marks)**
- b) Explain the following terms relating to computer installation **(10 marks)**

- (i) POST
- (ii) BOOTING
- (iii) COLD BOOTING
- (iv) FORMATING & PARTIONING
- (v) NFTS and FAT 32