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Bastion of Knowledge...

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OFFICE OF THE DEPUTY PRINCIPAL
ACADEMICS, STUDENT AFFAIRS AND RESEARCH

UNIVERSITY EXAMINATIONS

2018 /2019 ACADEMIC YEAR

FIRST YEAR FIRST SEMESTER REGULAR EXAMINATION

FOR THE DEGREE OF:

BACHELOR OF COMPUTER SCIENCE

**BACHELOR OF SCIENCE APPLIED STATISTICS AND COMPUTER
SCIENCE**

BACHELOR OF SCIENCE IN MICROBIOLOGY

BACHELOR OF HEALTH SCIENCE

COURSE CODE: COM 110/MSE 101

**COURSE TITLE: INTRODUCTION IN
COMPUTERS AND
COMPUTING/ ICT IN
LEARNING**

DATE: 14TH DECEMBER, 2018

TIME: 9.00AM – 12.00 PM

INSTRUCTION TO CANDIDATES

- SEE INSIDE

THIS PAPER CONSISTS OF 4 PRINTED PAGES

PLEASE TURN OVER

INSTRUCTIONS TO CANDIDATES

- i. Answer **ALL** questions from section A and any **THREE** from section B.
- ii. Maps and diagrams should be used whenever they serve to illustrate the answer.
- iii. Do not write on the question paper.

SECTION A (24 MARKS) COMPULSORY

QUESTION ONE (12 Marks)

- a) List four main functions of BIOS (4Mark)
- b) Provide the full definitions of the following acronyms
(i) MIDI
(ii) SCSI
(iii) HDMI (3Marks)
- c) Provide a brief description of the client server structure of the web (3Mark)
- d) Define the term multimedia (2 marks)

QUESTION TWO(12 Marks)

- a) (i) List two advantages associated with off the shelf software (2Marks)
(ii) List two disadvantages associated with off the shelf software (2Mark)
- b) Outline the four different information technologies that converge to create an e-commerce platform (4 Marks)
- c) Artificial intelligence, or AI as is commonly referred, is an area of computer science that emphasizes the creation of intelligent machines that work and react like humans. Describe a function within your area of specialization where AI can have a major impact in service delivery and/or manufacturing (4 Marks)

SECTION B (36Marks)

QUESTION THREE(12 Marks)

- a) Malware is the broad term to describe any malicious software designed by hackers. Malware includes viruses, trojans, keyloggers, zombie programs and any other software. List four attacks that malware may seek to perpetrate on your computer (4 Marks)
- b) With the aid of well labelled diagrams distinguish between a star topology and a ring topology (6 Marks)
- c) Describe the two main parts of the Central Processing Unit (CPU) (2 Marks)

QUESTION FOUR(12 Marks)

- a) Describe the four functions that constitute the machine cycle (4 Mark)
- b) Detail the two properties associated with microwave transmission that place restrictions on its use (4 Marks)
- c) Give four reasons why pseudocode is often the preferred choice for algorithm development as opposed to flow charts (4 Marks)

QUESTION FIVE(12 Marks)

- a) (i) Given the web <http://www.officialwebsite.com/mypage> describe the three parts that constitute this particular URL (3Marks)
- b) Provide a definition of the following internet terms (3 Marks)
- (i) Authentication (ii) Encryption (iii) cloud computing
- c) List six reasons behind the rapid growth of social media (3 Marks)
- d) Sequence the six steps that one needs to follow in order to scientifically solve a problem (3 Marks)

QUESTION SIX (12 Marks)

- a) (i) Give your understanding of the term telemedicine (1 Marks)
- (ii) Describe the three major barriers to adoption of telemedicine in emergency and critical care units. (3marks)
- b) State five ways in which hospitals use computers in clinical application (5 Marks)

c) Identify the role that databases play in record keeping within health facilities (3 Marks)

QUESTION SEVEN(12 Marks)

a) Identify four characteristics associated with ecommerce (4 Marks)

b) Describe three types of costs that one needs to put into consideration when choosing a topology (3 Mark)

c) State the meaning of the acronym CMOS (2 Marks)

d) Consider a situation where you are to calculate the average grade of all students in a class, detail the input, process and output that you will have to bear in mind while attempting to solve the problem (3 Mark)
