



PAN AFRICA CHRISTIAN UNIVERSITY

BACHELOR OF SCIENCE IN BUSINESS INFORMATION TECHNOLOGY

END OF TERM EXAMINATION

DEPARTMENT: COMPUTING & INFORMATION TECHNOLOGY

COURSE CODE: BIT101

CAMPUS: ROYSAMBU

COURSE TITLE: COMPUTER STUDIES

EXAM DATE: SATURDAY 10TH DECEMBER 2016

TIME: 09:00 - 12:00HRS

INSTRUCTIONS

- This exam script has **TWO (2)** sections.
- Read all questions carefully before attempting.
- Answer All questions in Section **A** and any other Four questions in Section **B**.
- Write only your **student number** on the answer booklet provided.
- None programmable calculator permitted
- Calculators on phones, tablets and computers are NOT permitted in Theory Papers

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SECTION A: (Answer ALL questions in this section)

Question 1:

- I. Define the following terms, give one example in each. : -
 - a. Application Software
 - b. System Software(6 marks)
- II. Explain how a computer works mentioning each of the major components involved.
(4 marks)
- III. Microsoft Powerpoint is considered as one of the best applications for preparing presentations as compared to other application programs. List at least 4 reasons why the above statement is true.
(4 marks)
- IV. Differentiate between Local Area Network and Wide Area Network (2 marks)
- V. VOIP is an example of an internet telephony service. Describe four advantages of using VOIP rather than sending messages using email. (4 marks)

SECTION B: (Answer any FOUR (4) questions in this section)

Question 2:

- I. Web conferencing has transformed the way meetings are done in the recent past. List its advantages. (5 marks)
- II. Distinguish between the following types of memory : -
 - i. DRAM and SRAM
 - ii. EPROM and EEPROM(4 marks)
- III. Outline four functions of the operating system. (4 marks)
- IV. Data storage has been cited as one of the major areas that organisations are taking seriously in the recent past due to the large amount of data they have and its security. Explain how cloud computing has helped to address the two issues mentioned above. (5 marks)

Question 3:

- I. Multinational companies often use video conferencing rather than face to face meetings. Give three advantages of video conferencing. (3 marks)
- II. Explain the fetch-execute cycle with regards to how a central processing unit functions.
(4 marks)
- III. E-Learning or Virtual Learning has brought education closer to the student in the modern world. Discuss. (5 marks)
- IV. Differentiate between a formula and a function as used in spreadsheets. Give an example in each. (4 marks)

Question 4:

- I. Computers were classified according to their size, purpose and capability. State the differences between the following types of computers: -
 - a. Mainframe
 - b. Supercomputer
 - c. Micro computer(6 marks)
- II. Explain the importance of having a database management system in an organization.
(3 marks)

- III. The manual system of keeping records is has been gradually replaced by the computer system in the recent past. State three advantages of computer system over manual systems. (3 marks)
- IV. Distinguish between RAM and ROM in a computer. (2 marks)
- V. Explain the purpose of the following productivity applications : -
- d. Spreadsheets
 - e. Databases
 - f. Presentation
- (6 marks)

Question 5:

- I. Explain the following concepts that are considered when selecting internet subscription.
- a) Download speed
 - b) Upload speed
 - c) Quotas
- (6 Marks)
- II. The Safaricom MPESA product has been improved for the last few years with new features being added and others discarded. Social media has played a huge part in the improvement. Explain the relevance of social media on how modern businesses are run.
- (5 marks)
- III. A school wants to buy some new computers. Some of the computers they buy will be networked and others will be standalone computers which will not be networked. Describe three advantages and two disadvantages of using networked computers. (5 marks)
- VI. Discuss possible advantages and disadvantages of using social networking sites.
- (4 marks)

Question 6:

- I. Explain the 5 generations of computers (10 marks)
- II. Identify at least three IT certifications and their respective specialisations in the market currently.
- (3 marks)
- III. Most companies take their information system security very seriously and have put measures to ensure adherence of the set security measures. Mention three security measures they can employ to ensure their system is secure. (3 marks)
- IV. Many hackers have tried to infect other people's computers with viruses.
- g. Describe what is meant by hacking. (1 mark)
 - h. Describe what is meant by a virus. (1 mark)
 - i. Describe how viruses can be prevented. (2 marks)

Question 7:

- I. Convert the following: -
- j. 6811_2 to hexadecimal
 - k. $0x3CB$ to decimal
 - l. $0x13F$ to binary
- (6 marks)
- II. A student wishes to store data on an optical storage medium. List two optical media and give one advantage and one disadvantage of using optical media when compared with fixed hard discs.
- (4 marks)
- III. Explain four advantages of having a computer network in an organization. (4 marks)

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- IV. Trading on the internet is called ecommerce. Companies provide many services and products online, including banking, shopping and travel booking. Outline three advantages and three disadvantages to either the customer or business providing online trading services.

(6

marks)