

PAN AFRICA CHRISTIAN UNIVERSITY

BACHELORS OF INFORMATION COMMUNICATION TECHNOLOGY

END OF TERM EXAMINATION

DEPARTMENT: COMPUTING & INFORMATION TECHNOLOGY

COURSE CODE: BCIT211 & DICT 0214

CAMPUS: ROYSAMBU

COURSE TITLE: ARTIFICIAL INTELLIGENCE

EXAM DATE:

TIME:

INSTRUCTIONS

- This exam carry a total of SIX Questions of [10 Marks Each]
- Section One (I) is compulsory.
- Answer any 3(Three) Questions from Section Two (II)
- Read all questions carefully before attempting.

Section One Compulsory 10 marks

Question One.

As an Artificial Intelligence specialist, distinguish the following by using suitable examples in an AI application

- a) Depth-first search and iterative deepening search. (4 marks)
- b) State space search and game tree evaluation. (4 marks)
- c) Top-down parsing and bottom-up parsing. (2 marks)

Section Two Attempt any Three Questions.

Question Two

- a) Discuss the ethical challenges in machine learning in self-driving cars (4 marks)
- b) Show how production rules can be used in reasoning using an illustration. (6 marks)

Question Three

Explain FIVE reasons why the following are key functions of AI.

- a) Image recognition (5marks)
- b) voice recognition (5 marks)

Question Four

Various organizations around the globe have embarked on a mission to implement AI enabled systems. Identify FIVE business processes and how A.I is used (10 marks)

Question Five.

Even though the implementation of Artificial Intelligence systems has been associated with so many benefits, there are some security concerns as a result.

- a) Outline FIVE security concerns (5 marks)
- b) Discuss ways on how they can be addressed. (5 marks)

Question Six.

You have been selected to be part of the team that is assigned the task of developing a knowledge based system. Describe FIVE major phases your team must undertake in the process of acquiring knowledge for the system.
(10 marks)

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