

SOUTHWESTERN UNIVERSITY NIGERIA

KM 20, SAGAMU-BENIN EXPRESSWAY, OKUN OWA, IJEBU-ODE, OGUN STATE.

FACULTY OF PURE & APPLIED SCIENCES

DEPARTMENT OF COMPUTER SCIENCE

HND TO BSC CONVERSION PROGRAMME

2018/2019 FOURTH SEMESTER EXAMINATION

COURSE CODE: CMP 417 COURSE TITLE: Artificial Intelligence

INSTRUCTION: Answer question 1 and any other three (3). **TIME:** 2hrs

1. (a) Explain five main reasons why humans attempt to model human performance.
(b) Define Learning and explain briefly the following approaches to Learning with real life illustration.

Symbolic	Learning
Numerical	Learning
Supervised	Learning
Unsupervised	Learning

(c) Explain briefly the seven(7) different classifications of Learning.
2. Use an Expert System Architecture diagram to explain what an Expert system means.
3. (a) Explain what CAPTCHA is all about and how it relates to Turing test
(b) Find a good state space representation for the water jug problem.
(c) Find a good state space representation for a THREE step Tower of Hanoi.
4. (a) Elucidate on the four major requirements necessary when solving Artificial Intelligence problems.
(b) With appropriate diagram, explain the Turing test used to measure system intelligence
5. (a) Some definitions of Artificial Intelligence were organized into the following four categories give two definitions each of Artificial Intelligence under each of the following category.

(i) Systems that think like humans	(iii) Systems that think rationally
(ii) Systems that act like humans	(iv) Systems that act rationally

(b) Explain the Breadth-First Search Technique and state two of its advantages.