COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND GOVERNANCE

NCIS 213– COMPUTERS AND MODERN SOCIETY

END OF SECOND SEMESTER EXAMINATIONS

APRIL 2022

LECTURER: MR MUKHALELA

DURATION: 3 HOURS

INSTRUCTIONS

The Examination Question paper contains 6 (six) questions.

Use allocated Exam Answer booklet for answering this Examination.

Attempt **All** Questions in Section A (compulsory).

Attempt any **3 (three)** questions in Section B.

The number of marks allocated for each question is shown in square brackets at the end of each question.

Credit will be awarded for logical, systematic and neat presentations.

Section A

Question 1_Case Study

Read the following information about location-based social networking sites and answer the questions that follows for each app.

- **Plazes** allows its users to create a calendar of what's going to happen and where it is going to happen in their current area. Users can then notify their friends by hitting the 'spread it' button. This is a great way for friends to connect.

- **Citysense** displays a map of where people are transmitting a cell signal from so you can see where your friends are and get up to date information of local events.

- **Whrrl** lets friends share reviews, photos, the latest specials, deals, and so on,of restaurants, hotels, bars, clubs, malls, movie theaters with one another. This app uses Google maps so you can specify a location to read reviews of businesses in a particular area and what they all have to offer in order to choose which one is best suited to what you are looking for.

- **Brightkite** is similar to Twitter and has a Facebook-like friend feed so that users can comment, upload and share pictures on the location of where they are.

- **Loopt** turns your mobile device into a compass that allows a map to be populated showing the locations of your friends and where they've visited. Comments and suggestions are easily left for others to see and the application also has built-in support for instant messaging services.

a. Identify and briefly narrate the social implications for the location-based app?

b. Elucidate some of the ethical and legal issues which could happen due to the policies of the app?

c. Identify and briefly narrate the advantage and disadvantage of the app?

Section B -Answer any 3 Questions

Question 2

a. Define and describe the major e-commerce business models used in today's modern societies. Cite relevant examples in your discussion.   [15]

b. In your opinion, according to Porter's Five Forces Model, has competition increased or decreased overall as a result of the internet and e-commerce? Specifically address each of the five forces in Porters model.   [10]

Question 3

a. 'User searches privacy is in danger,' said Dr Nato a Computer Security Expert. Is it invasion of privacy or just good business? Does it bother you that companies collect and sell information about you on the internet?   [10]

b. Assess the role of neural networks in predictive analytics in this 4IR.   [15]

Question 4

a. Distinguish between AI and ML, how are they shaping modern Societies?
    In your discussion, showcase the classifications of AI and how the society is interacting with each classification.   [12.5]

b. Distinguish Big Data and Data Science. Using examples, illustrate how modern societies are harnessing each of these in daily life.   [12.5]

Question 5

a. Modern systems have so far been developed using an array of methodologies including Outsourcing and Prototyping. Discuss the importance of these methodologies as used in modern societies when it comes to systems development.   [15]

b. Much debate surrounds the use of biometrics. Many people like it because biometrics can provide identification and increase security. Other people see it as a tremendous invasion of your privacy. So the greatest challenge to overcome is not technological but rather societal. What do you think needs to happen for society to accept the use of biometrics? Cite examples of societal systems which make use of this technology.   [10]

Question 6

a. Define expert systems and describe the types of societal problems to which they are applicable. [12,5]

b. Define neural networks and fuzzy logic and the uses of these AI tools. [12.5]

End of Examination.