

12

BBA in TM, 6th Sem.

Date: February 23, 2023 (Morning)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)  
ORGANISATION OF ISLAMIC COOPERATION (OIC)

DEPARTMENT OF BUSINESS AND TECHNOLOGY MANAGEMENT

Mid-Semester Examination

Course No. : BTM 4609

Course Title : Management Information Systems (MIS)

Summer Semester, A. Y. 2021-2022

Time : 1.5 hours

Full Marks : 75

Answer **all the 3 (three)** questions. All questions carry equal marks. Marks of each question and corresponding CO and PO are written in the right margin with brackets.

1. a) Describe the characteristics of management information systems (MIS) and explain how MIS differ from TPS and DSS. 8 (CO1)  
(PO1)
  - b) How are information systems transforming business in the present world? Why do they so essential for running and managing a business today? 8 (CO1)  
(PO1)
  - c) In what major ways have information systems in business changed during the last 40 years? What is one major change you think will happen in the next 10 years? 9 (CO1)  
(PO1)
  
  2. a) Use the time/space collaboration and social tool matrix to classify the collaboration and social technologies. 8 (CO1)  
(PO1)
  - b) Describe the major economic theories that help explaining how information systems affect organizations. 8 (CO1)  
(PO1)
  - c) Non-Obvious Relationship Awareness (NORA) is a concept used in the field of intelligence and security to describe the process of identifying hidden connections and relationships between individuals, organizations, or events. This can involve the use of advanced technologies such as artificial intelligence and machine learning algorithms, as well as traditional intelligence methods such as human analysis and research. 9 (CO4)  
(PO2)
- NORA is becoming increasingly important as the volume of data generated by individuals and organizations continues to grow, making it more difficult to identify and track connections and relationships. This is particularly relevant in the context of criminal and terrorist organizations, which often use complex networks to conceal their activities and evade detection.
- i. What is Non-Obvious Relationship Awareness (NORA)?
  - ii. What are some of the challenges associated with using NORA to identify relationships in large data sets?
  - iii. How can artificial intelligence and machine learning algorithms be used to enhance NORA capabilities?

3. a) A small business owner named Xuena has just purchased a new information system to manage her growing business. The system includes a database that stores all of her customer's personal information, including names, addresses, and payment records. However, Xuena soon realizes that she can access and use this information in ways that could potentially harm her customers. 8 (CO3)  
(PO7)
- i. Is it ethical for Xuena to use this information for marketing purposes without the consent of her customers?
  - ii. How can Xuena ensure that she is using the information system in an ethical manner that protects the privacy and security of her customers?
  - iii. What legal implications could arise if Xuena uses the information system in an unethical manner?
  - iv. How can Xuena balance her desire to grow her business with her obligation to protect the privacy and security of her customers?
- b) IT infrastructure is a critical component of an organization's information systems and is responsible for supporting the operations of the organization. Can you provide a comprehensive list of the components that make up IT infrastructure and explain the significance of each component in the overall functioning of an information system? 8 (CO2)  
(PO3)
- c) What do you mean by Digital Security Act and ICT Act? Identify the key provisions of the Digital Security Act 2018, and what is its main purpose? 9 (CO3)  
(PO7)