



# SLIATE

**SRI LANKA INSTITUTE OF ADVANCED TECHNOLOGICAL EDUCATION**  
(Established in the Ministry of Higher Education, vide in Act No. 29 of 1995)

## Higher National Diploma in Information Technology

**First Year, First Semester Examination – 2022**

### **HNDIT 1042 – Information Management and Information Systems**

**Instructions for Candidates:**

**Answer five (05) questions.**

**All questions carry equal Marks.**

**No. of questions : 06**

**No. of pages : 03**

**Time : 03 hours**

#### **Question 01**

**[Total marks 20]**

- i. Define the terms Data and Information. (02 Marks)
- ii. Mention two (02) ways how information systems can support organizations. (04 Marks)
- iii. What are the basic functions of an information system? (04 Marks)
- iv. Using information systems effectively requires an understanding of the 03 dimensions of information systems. From these 03, briefly explain any 02 dimensions of information system. (04 Marks)
- v. Briefly explain the information systems used in 03 different levels of organization. (06 Marks)

#### **Question 02**

**[Total Marks 20]**

- i. What is meant by 'business process'? (02 marks)
- ii. List four (04) major enterprise applications. (04 marks)
- iii. Read the following purposes and suggest which enterprise application (from the 04 major enterprise applications you listed in above question) is most suitable in each purpose. (04 marks)
  - a) To integrate business processes in manufacturing and production, finance and accounting, sales and marketing, and human resources into a single software system.
  - b) To provide information to coordinate all of the business processes that deal with customers in sales, marketing, and service to optimize revenue, customer satisfaction, and customer retention.
- iv. Briefly explain two (02) advantages of using enterprise applications. (04 Marks)

v. Following are some of organizational strategic business objectives.

- a) New products, services and business models
- b) Survival

Briefly describe the above strategic business objectives, with providing some examples from practical business world. (06 Marks)

### Question 03

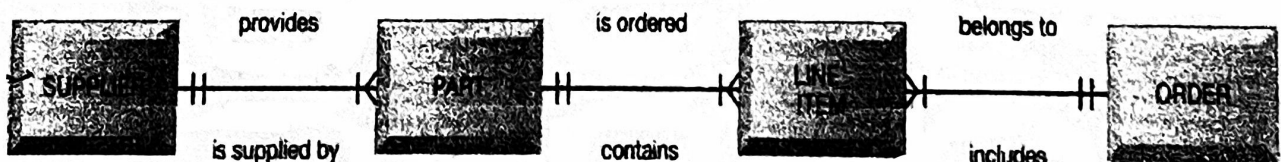
[Total Marks 20]

- i. What is a Socio-technical system? (02 Marks)
- ii. State two (02) non-technical elements of the Socio-technical system. (04 Marks)
- iii. Mention two (02) Information System Strategies for Dealing with Competitive Forces. (04 Marks)
- iv. Briefly explain two (02) methods organizations use to cut down the cost of products. (04 Marks)
- v. SWOT analysis is a strategic planning tool used by organizations. Explain the SWOT analysis. (06 Marks)

### Question 04

[Total Marks 20]

- i. Define the term 'an effective information system'. (02 Marks)
- ii. List two (02) problems with traditional file systems. (04 Marks)
- iii. A DBMS (Database Management Systems) includes capabilities and tools for organizing, managing, and accessing the data in the database. Mention two (02) capabilities of DBMS. (04 Marks)
- iv. ER diagrams are used to identify the entities and relationships between those entities in a system. They provide a visual blueprint for understanding the structure and relationships within a database.  
What are the entities available in the following ER diagram? (04 Marks)



- v. Explain the following terms in Relational database management system. (06 Marks)
  - a) Tuples
  - b) Primary Key
  - c) Foreign Key

**Question 5****[Total Marks 20]**

- i. Do you agree that building new systems produce organizational change? If you agree, then mention an area of change in an organization. (02 Marks)
- ii. State four (04) ways the Information technology can promote various degrees of organizational change? (04 Marks)
- iii. What is the difference between 'Unit testing' and 'System testing'? (04 Marks)
- iv. Conversion is the process of changing from the old system to the new system. Briefly explain two (02) conversion methods. (04 Marks)
- v. Cloud computing deployment methods refer to the ways in which cloud services are made available to users. Explain the three (03) different types of cloud computing deployment models. (06 Marks)

**Question 06**

Write short notes on any five (05) of the following topics.

**(04 Marks x 05 = 20 Marks)**

- i. Cloud database
- ii. Virtual reality
- iii. Data warehouses
- iv. Data mining
- v. Spyware
- vi. Firewall
- vii. Wearable devices in business