BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF COMMERCE

GRADUATE SCHOOL OF BUSINESS ~~JUN 2023~~

MASTER OF BUSINESS LEADERSHIP

MANAGEMENT INFORMATION SYSTEMS AND E-BUSINESS (EMBL 509)

EXAMINATION PAPER

DURATION: 3 HOURS 30 MINUTES

INSTRUCTIONS AND INFORMATION TO CANDIDATES

1. Section A is compulsory and carries 40 marks.

2. Answer Question One from Section A and any three (3) questions from Section B.

3. The paper carries five questions.

4. All questions in Section B carry equal marks of 20 each.

5. The use of cell phones is not allowed in the exam.

SECTION A: [COMPULSORY]

QUESTION 1

You have been appointed as Project Manager for a large hotel company which is opening a new hotel at a new holiday destination resort. Although they have an existing system used in their other hotels, a completely new system will be required to deal with room reservations and bookings for customers. It will need to provide an on-line (web-based) enquiry system as well as handling guests' reservations, guests checking in/out and payments.

Required:

i. Explain why a preliminary survey needs to be carried out when developing a large computer based system as described above.   (10 marks)

ii. What is a feasibility study and what areas would you expect to include in the feasibility report?   (10 marks)

iii. Briefly describe **THREE** fact-finding techniques you would use in the analysis phase giving examples of each.   (10 marks)

iv. Sketch a High Level Data Flow Diagram depicting the above system.   (10 marks)

[Total: 40 marks]

SECTION B: (*Answer any three [3]questions from this Section.*)

QUESTION 2

A company needs to develop new software. It has to choose between the waterfall and the spiral software development models.

a) For each of the models, discuss how it works and its strengths and weaknesses.

(14 marks)

b) What is the main criterion for deciding whether to use the waterfall model or spiral model in a software development project?   (6 marks)

[Total: 20 marks]

QUESTION 3

a) How can Information Systems optimize process composition? How does optimized composition influence process performance? Provide an example. **(4 marks)**

b) How can Information Systems optimize process complexity? How does optimized complexity influence process performance? Provide an example.

(4 marks)

c) How can Information Systems optimize process coordination? How does optimized coordination influence process performance? Provide an example. **(4 marks)**

d) How can Information Systems optimize process flexibility? How does optimized flexibility influence process performance? Provide an example. **(4 marks)**

e) How can technological properties of an IS affect process design? What is the label for this IS role? **(4 marks)**

[Total: 20 marks]

QUESTION 4

a) When organisations decide to embark on a change of business model and adopt e-commerce, they are free to choose any of these following e-commerce models:

    i.   Business - to - Business (B2B)
    ii.   Business - to - Consumer (B2C)
    iii.   Consumer - to - Consumer (C2C)
    iv.   Consumer - to - Business (C2B)
    v.   Business - to - Government (B2G)
    vi.   Government - to - Business (G2B)
    vii.   Government - to - Citizen (G2C)

Discuss these business models in detail with the aid of diagrams for emphasis.   [20 marks]

QUESTION 5

A national chain of food retail outlets wants to improve its MIS capabilities. Each retail outlet collects data about the individual sales of products into a separate database which is implemented using local software and IT platforms. The Managing Director (MD) wants to access information so that he can monitor company progress towards its sales Key Performance Indicators (KPIs). He also wants his retail outlet managers (many of whom are inexperienced computer users) to directly receive:

• a monthly sales report by product type for their retail outlet.

• a report comparing the overall monthly sales performance of individual outlets.

• ad-hoc access to sales data for flexible reporting.

With the aid of one or more relevant supporting diagrams, describe and justify a Business Intelligence (BI) system that could be employed to support the requirements defined by the MD. Make sure that your answer includes a:

a) description of how each user role would interact with the BI system in order to request
    and receive information.   **(7 marks)**

b) discussion of the potential data sources for the BI system and any accompanying Extract-
    Transform-Load (ETL) requirements.   **(7 marks)**

c) discussion of how the BI system might be developed using a phased approach.

(6 marks)
[Total: 20 marks]

END OF EXAMINATION PAPER.