

UNIVERSITY OF SWAZILAND
DEPARTMENT OF BUSINESS ADMINISTRATION
MAIN EXAMINATION PAPER
MAY, 2014

TITLE OF PAPER : INTRODUCTION TO BUSINESS COMPUTING

COURSE CODE : BA 112 IDE

TIME ALLOWED : THREE (3) HOURS

- INSTRUCTIONS:**
- 1. THE NUMBER OF QUESTIONS IN THIS PAPER = SIX (6)**
 - 2. SECTION A IS COMPULSORY.**
 - 3. ANSWER ANY THREE (3) QUESTIONS IN SECTION B**
 - 4. THE MARKS TO BE AWARDED FOR EACH QUESTION ARE INDICATED ALONGSIDE THE QUESTION.**

NOTE: MARKS WILL BE AWARDED FOR GOOD COMMUNICATION IN ENGLISH, AS WELL AS FOR ORDERLY AND NEAT PRESENTATION OF WORK. FURTHER MARKS WILL BE AWARDED FOR USE OF RELEVANT EXAMPLES.

SPECIAL REQUIREMENTS: NONE

THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR.

SECTION A

Honda Uses Collaboration Software to Speed Product Development

Honda is the world's largest motorcycle maker and Japan's third largest automaker behind Toyota and Nissan. It also has a power products division that manufactures lawn mowers, snow blowers, portable generators, and outboard motors. The company's car models include the Accord, Acura, Civic, Legend, Prelude, and Insight—a gasoline-electric hybrid.

The automobile industry is intensely competitive, with manufacturers facing cut-throat global competition. They are under pressure to reduce costs to the minimum and pass the savings along to customers. They must also reduce the time to produce new models that appeal to customers in many parts of the world while tailoring automobiles to customer specifications. To overcome these challenges, manufacturers are turning over an increasing portion of the design, development, production, and customer support activities to multiple suppliers and other business partners. Such collaborative product development is changing the way Honda brings products to market.

The research and development activities for Honda uses software called eMatrix from MatrixOne to support collaborative product development. This Internet-based system helps document and manage the product's bill of materials (BOM)—a list that describes all components of the finished product, such as part numbers, quantity, measurements, and labor and material costs. An accurate and complete BOM is critical to the manufacturing process—any mistake can cost the manufacturer in loss of labor and materials and valuable time-to-market.

eMatrix enables Honda research and design engineers to share design information from the early stages of product development so that the accuracy of the engineering BOM is greatly improved. The system supports engineers as they manage and configure all the details that go into a product: basic car design, options, features, local variations, components and larger assembled parts, specifications, supporting documentation, costs, and engineering changes. The single, accurate view of the engineering BOM across all organizations involved in the product ensures that most design and development issues are identified and resolved earlier in the design and manufacturing cycle. Such coordination leads to the early detection and resolution of many problems—saving time and resources. The bottom line is higher quality, decreased costs, and the ability to bring automobiles to market faster.

The eMatrix system is being deployed in multiple stages with the ultimate goal to link Honda's global research and design activities wherever they are located. The

first phase of the rollout was completed in October 2001 and connected several thousand design engineers throughout Japan, the United States, the United Kingdom, and Thailand. The software vendor, MatrixOne, partnered with Fujitsu to deploy the eMatrix platform and integrate it with Honda's other key information systems.

Questions:

1. Why did Honda resort to a software package to support this critical business process rather than develop a custom application to meet its needs? 20 marks
2. What issues do you anticipate Honda must overcome in trying to implement this standard software to support its worldwide research and design activities? 20 marks

SECTION B

ANSWER ANY THREE QUESTIONS

Question 1

Discuss the four different programming languages 20 marks

Question 2

Discuss each of the following

Dynamic data exchange 4 marks

Portability 4 marks

Task switching 4 marks

Single user/ multi user 4 marks

GUI 4 marks

Question 3

What are the benefits and limitations of computerised databases 20 marks

Question 4

Thembi is employed in the Information Communication Centre as the database administrator for IDE students. What are her duties 10 marks

What is data warehousing? 10 marks

Question 5

Discuss the CPU 15 marks

What do you understand by customer made software 5 marks