

Marks

Question 24 (12 marks) Use a SEPARATE writing booklet.

Madison is a large department store chain with its own credit card. Madison makes extensive use of networks to transmit data. As a part of its business, Madison has over 100 000 credit card holders. In administering these credit card accounts, Madison accumulates vast quantities of data in its accounting system. This data includes items such as:

- customer name, age, address and income bracket
- description and price of item purchased
- location of store from which the item was purchased.

(a) Identify and describe the operation of TWO methods of error detection that could be used to help check for errors in Madison's communications links. 3

(b) Madison has not yet developed an effective way of using its data to advance its business. 4

Identify and outline TWO new trends in processing, organising, storing and retrieving data that could provide a solution for the company. Demonstrate the way that each of these TWO new trends might be applied to Madison.

(c) Pat, John and Sam are all employees of Madison. Pat and Sam both have their own internal company e-mail accounts; John does not. Pat sent Sam the e-mail message below. 5

Analyse the messaging issues that are relevant to this situation.

