

The following suggested answers are provided as a guide. It is suggested that teachers allocate 5, 4, 3, 2, 1 or 0 marks to each question. The completed paper would then be marked out of a total of 50. Points could then be allocated for grading from A+ to E to indicate the level of that student.

The answers given are suggested answers only. It is not suggested that students would make all of the points given nor that the points made within the answer are inclusive of all points which could be made.

Question 1

Storage

Under the present system, files are stored as paper within filing cabinets. Under the new system files would be stored electronically, both on hard disk and later on CD-ROM. Files from all branches would be stored allowing access to a greater variety of properties for sale.

Retrieval

At present, details of each property are retrieved from a manual file held in each branch. Under the proposed CD-ROM system, property details would be retrieved from files held electronically on CD. The reduced time for electronic retrieval may mean that there is an increase in efficiency. There may also be an increase in effectiveness with properties from all branches being now held in one file. The procedures of the employees in each branch will change - employees will need to develop procedures to retrieve properties quickly from the CD-ROM.

Manipulation

At present there seems to be little manipulation of data - there may be some manipulation involved in setting up a display in each branch window. Under the proposed CD-ROM system, data (both image and text) would be manipulated electronically using the software package CD-Present and also possibly using the scanner software.

Question 2

The organisational goals of the Able and Baker which the CD-ROM listing are likely to improve are:

Improved customer service

The new system will be more efficient and effective for customers who wish to locate a property for purchase. Rather than relying on sales staff or properties listed for sale in a branch window, customers will be able to browse through properties for sale on computer - if necessary with the help of sales staff.

Increased branch co-operation

The new system will mean that branches no longer compete with each other in the sense that all properties for sale by Able and Baker will be listed on CD-ROM. Branches will still compete with each for sales.

Improved staff morale

The new system will mean that branch sales staff will compete for sales from the same list of properties. This should mean improved staff morale. Improved staff morale will also result from the more efficient and effective retrieval of property lists from CD.

Question 3

The proposed CD-ROM system would require staff to learn new skills and procedures.

New procedures will be needed at each branch for

- the creation of the monthly property list
- validation of data on the monthly property list
- mailing the property list to head office
- operating the CD-ROM system
- assisting customers in using the CD-ROM system

New procedures will be needed at Head Office for

- the creation of the CD-ROM master presentation
- validation of data
- duplication of CD-ROMs using the recordable drive
- mailing of the CD-ROM to branch offices.

Question 4

Economic Implications

- setup costs: additional phone line and modem at each branch
- running costs (\$10,000 p.a.)
- improved efficiency:
 - staff able to retrieve property details faster
 - customers able to browse property details for themselves
 - able to be browsed around the world by potential customers
 - property list updated daily
- cost of training staff, although this is likely to be quite low

Social Implications

- some jobs may be outdated or re-defined e.g. employees who do filing may now have to forward details of properties for sale to Internet service provider
- re-skilling: employees will need to learn how to connect computer to the Internet and how to operate Web browser software
- how will staff and customers react to the new system?
- customers using the Internet may now be situated anywhere in the world

Question 5

Both the merits and deficiencies of the proposed CD-ROM and Internet systems should be discussed and a conclusion should be reached and justified.

CD-ROM - Merits

- multimedia presentation containing text and pictures (also sound and video if needed)
- easily copied and distributed
- would enhance the technological profile of the Company
- would take 5 hours per month and \$150 p.m. to produce a set of CD-ROMs (\$1800 p.a.)

CD-ROM - Deficiencies

- only distributed monthly, therefore usually out-of-date
- software probably needs trained and skilled operator

Internet - Merits

- able to be read by potential customers around the world
- contains timely information, updated daily
- would enhance the technological profile of the Company

Internet - Deficiencies

- Able and Baker would rely heavily on an external organisation over which they had no control (the Internet service provider, Webmaster).
- costly - \$10,000 p.a. connection together setup costs for Webnet, 15 x \$2500 for each branch to connect (\$37,500 p.a.).

Able and Baker should possibly accept the CD-ROM alternative if the data could be updated more frequently (at least weekly) instead of the monthly time proposed.

Alternatively they should look for a cheaper Internet service provider as cost for service seems to be the main problem with the Internet proposal.

Question 6

Some of the factors Able and Baker should consider in purchasing hardware and software are:

Software

- the suitability of *CD-Present* for the task
- the ease or difficulty of using *CD-Present*
- features contained within the software
- compatibility with hardware within the organisation
- availability of manuals and documentation
- do the suppliers provide any telephone support for difficult to solve problems?
- is *CD-Present* stable or does it frequently crash
- does the *CD-Present* compiled output need any additional hardware or software installed on client computers?

Hardware

- is the CD-ROM recordable drive reliable
- will it be compatible with existing computer equipment
- is more RAM and disk space needed to use the recordable drive?
- availability of service and spare-parts for the CD-ROM recordable drive
- the speed of the CD-ROM recordable drive (minutes per CD)

Question 7

Among the areas which could be tested include:

- time taken to create a typical output file from *CD-Present*
- does *CD-Present* contain fast and easy-to-use internal data validation
- is *CD-Present* user friendly and easy-to-use both for the creator of the software as well and the customer or staff end user?
- the time taken to input data into *CD-Present*
- the time taken to recover after a software or hardware crash
- do existing files recover properly after a crash or is it necessary to revert to a previous file generation?

Question 8

Branches

- Staff training needed in creation procedures for monthly lists and mailing procedures
- Staff training to be given in use of CD-ROM software and in assisting customers using that software
- Documentation of new procedures
- Training to be done before changeover
- Monitoring of procedures during implementation in order to detect any problems

Head Office

- training to one or two staff in creation of CD-ROM software and disk duplication. It may be necessary to employ at least one new skilled staff member if, as is likely, the existing staff have insufficient expertise.
- training in procedures for distribution of CD-ROM disks to branches.

Question 9

The following documentation would be needed at Head Office:

- *CD-Present* operating manual for entering data into a template for viewing of property data at each branch

This manual should contain detailed instructions on how staff would operate the *CD-Present* software and hardware including

- starting and stopping the computer
 - use of templates for inputting data
 - what do in case of a specific problem
 - security procedures
- user's manual

This manual should contain detailed instructions for the installation and maintenance of the output from *CD-Present* which will be used at each branch office

It should provide instructions for:

- starting and stopping the computer
- what do in case of a specific problem
- security procedures

Factors affecting design of documentation include:

- manuals should be clearly written in plain English and by someone with expertise in the area. They should be logically organised, easy to understand and contain an index. All documentation should be trialed to check that it is workable and that the steps described within the documentation are clearly expressed and work.

Question 10

Evaluation is achieved by measuring how the system performs against yard-stick criteria. This would need to be done 3 months and 6 months after the initial implementation of the CD-ROM system.

It would include such things as:

- checks for efficiency and effectiveness of new system in terms of such things as time, cost, ease of use
- survey of staff reaction to the new system
- customer survey
- check of utilisation of CDs
- observation of how CDs are used
- branches could maintain usage and problem log for CD

**END OF SUGGESTED SOLUTIONS
1996 IPM TRIAL CAT 3**

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