SUMMARY of Module 10

1. The most commonly used output devices are printers, video display terminals and audio output devices.

2. Printers are of two types, line printers and character printers. For large volume printing, line printers are most appropriate. Character printers are useful for low volume printing. They also provide simple graphics output. Multiple copies can be taken using carbon paper.

3. Inkjet and laser printers are non-impact printers. Laser printers provide high quality printing and are mostly used in desk top publishing (DTP) system. Both inkjet and laser printers can display graphics output.

4. Capital cost of inkjet printers is small but its running cost is high. Laser printers on the other hand cost more but printing cost per page is lower.

5. Video displays are normally used for on-line display of information. They are interactive and a user has to be instructed how to get appropriate information.

6. Audio outputs are becoming popular with the advent of inexpensive speech synthesizers. Currently audio output is used in enquiry systems to answer simple queries.

7. Auido outputs are essential when eyes are otherwise busy.

8. Before designing a report and deciding on the output device to be used, one must ask for whom it is intended, its proposed use, and its volume and frequency.

9. Reports for top management must be brief, preferably graphical, and convey information for strategic management.

10. Reports for middle management must not contain details. Exceptions should be printed or displayed to assist in tactical management.

11. Routine outputs such as payslips, address labels, etc., are massive and periodic and are printed on a line printer or character printer depending on the volume to be printed.

12. Every report must have a report heading, page heading, heading for fields, details lines and control information. Pages should be numbered and the date of creation of the report printed at the top of the report.

13. A print chart is used to specify the format of a report. Report headings, page headings, the columns in the printer where they appear in a report are specified by the print chart.

14. Report generator systems are available in languages such as COBOL. These are useful to convert report specifications to printed reports.

15. The layout of information on video display screens is also specified using similar principles. The main difference is the need to instruct a user to select appropriate displays.

16. With current technology Graphical User Interfaces are easy to design. They should be used wherever they are appropriate.

17. Graphical outputs are easy to obtain on video terminals, inkjet and laser printers. Graphs, bar charts, pie charts and maps are easy to draw and should be used as appropriate.

QUESTION BANK – MODULE 10

10.1   What is the difference between impact and non-impact printers?   Give an example of each type of printer?

10.2   What is the speed range of a line printer? What is the speed range of a character printer?

10.3   For what types of outputs are video display units appropriate? What is the main difference in characteristics between video display units and printers?

10.4   What type of output will you use for the following:

(i)   Strategic management

(ii)   Tactical management

iii.   Operational management

10.5   When is a detailed printed output appropriate?

10.6   What is the difference between off-line and on-line output presentation?

10.7   What are the various headings used in a report? Why are they required?

10.8   What is a print chart? How is it used? Prepare a print chart for stores data processing system.

10.9   Why are control footings used in printed reports?

10.10   What is a report generator?

10.11   List the important points to keep in mind while designing the format of a report.

10.12   What is the main difference between the design of an output screen for a video terminal and the page layout for a printer?

10.13   What do you understand by business graphics?

10.14   Pick the appropriate graphics presentation for the following applications:

       (i)   Relative enrollment of students in various departments in a University.

       (ii)   Growth of student strength in a department over a period of 10 years.

       (iii)   Sales percent of a product in 6 regions of a country.

       (iv)   Proportion of total revenue of a state from direct taxes, indirect taxes, public loan, land revenue, income from public sector companies, and miscellaneous receipts.

       (v)   Engineering colleges established in different parts of a country.

10.15   When is colour presentation of graphics useful? Give examples.

REFERENCES

1. Most of the material is taken from Chapter 14 of the text book "Analysis and Design of Information Systems" by V.Rajaraman, 2nd Edition, Prentice Hall of India, New Delhi.

2. There is a good coverage of this type in Kendall and Kendall "System Analysis and Design", Pearson Education Asia, 2003, Chapter 15, pp.478-496.

3. J.A.Hoffer, J.F.George, J.S.Valachich, "Modern Systems Analysis and Design", 3rd Edition, Pearson Education Asia, New Delhi, 2002, discusses forms and reports design in Chapter 13, pp.432 to 450. Designing dialogues and graphical user interfaces is discussed in Chapter 14, pp. 460 to 490. Companion web site is prenticehall.com/hoffer for multiple choice questions etc.