

MBA I Semester Regular Examinations December/January 2017/2018

INFORMATION TECHNOLOGY FOR MANAGERS

(For students admitted in 2017 only)

Time: 3 hours

Max. Marks: 60

SECTION – A

(Answer the following: (05 X 10 = 50 Marks)

1 Explain the role of IT in business.

OR

2 Explain the strategies for gaining IT advantage.

3 What are the data access methods?

OR

4 Discuss about types of data processing.

5 Explain the formulae and functions in MS-Excel.

OR

6 How to customize presentations? Explain.

7 Explain about types of data communication networks.

OR

8 What is computer network? Explain the concepts of computer network.

9 What is ERP? Briefly explain the various ERP packages.

OR

10 Explain about emerging trends in information technology.

SECTION – B

(Compulsory question, 01 X 10 = 10 Marks)

11 **Case Study:**

Blue Cross Blue Shield and Warner Bros.: The ROI of Storage Area Networks

Blue Cross Blue Shield of Tennessee Inc. has spent between \$3 million and \$3.5 million over the past three years on a storage-area network (SAN) that includes 40TB of disk and tape storage. That may seem like a hefty capital investment, especially in storage, which is increasingly considered a commodity item. But you must also consider the savings, says Bob Venable, enterprise systems manager at the Chattanooga-based health insurer. They amount to more than \$1.5 million per year and come largely from reductions in the time and labor costs related to identifying and solving storage-related problems.

Blue Cross BlueShield's return on investment is impressive, but it's also far from typical. In fact, experts say there's no such thing as typical when it comes to cost savings from SANs, since there's no single formula for calculating their cost. Instead, the cost of implementing and running a SAN can vary tremendously, depending on a company's existing equipment, storage needs, and planned acquisitions. The same variables also affect a company's ROI.

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Storage area networks are high-speed local area networks dedicated to providing high-performance data storage for many companies today. SANs cut data storage costs by connecting servers, storage systems, and backup devices to allow centralized storage management and real time reallocation of data storage. "This is a data center management team's nirvana," Says David Cyganski, a professor of electrical and computer engineering at Worcester Polytechnic Institute in Worcester, Massachusetts.

But comparing the costs of implementing and running a SAN with those for other storage systems, such as direct-attached storage or network-attached storage (NAS), is tricky. The initial costs associated with a SAN are significantly higher, but the long-term payoffs are much greater, experts say. "If I compare the storage costs of buying servers and managing them on a server-by-server basis and the costs of buying a SAN and managing it from a centralized place, the purchase cost is maybe four times higher with a SAN, but the total cost of ownership is about half," says Bob Passmore, an analyst at Garnet Inc., in Stamford, Connecticut.

Don Cawthorne is a user-turned-vendor who was working at Northern Trust Bank in Chicago five years ago when it decided to build a SAN infrastructure. SANs were still in their infancy at the time. Cawthorne budgeted \$1.7 million for about a half-dozen servers. But technological advancements have resulted in a huge drop in SAN costs and a big increase in SAN performance. Today, a SAN for six servers would cost only a fraction of the amount he paid, says Cawthorne, who is now director of SAN architecture at SANcast Technologies Inc. in San Jose.

Still, what goes into a SAN now depends on factors such as how large a network is and the class of equipment to be used. "Cost is driven very much by the complexity of the situation," Passmore says. However, users often find that the cost savings they accrue are well worth the price. They also report intangible benefits, such as having more floor space available in the data center after converting to a SAN.

Anthony Lloyd, vice president of computer operations at motion picture company, Warner Bros., recovered about 35 percent of his data center's floor space when he installed four storage area networks. This will allow for better planning as he brings in more hardware, he says. Although it's nice to have extra floor space, users, analysts, and vendors say the real advantage of SANs comes from better management of storage.

Before implementing SANs at New York-based Warner Bros., Lloyd had problems projecting what his storage needs and costs would be. "We were immediately able to fix that in the SAN environment." He says. What's more, he estimates that a total investment of about \$1.3 million has already yielded about \$700,000 in saving over the past year as a result of less downtime and more efficient use of resources.

Now Warner Bros. procures new storage every quarter instead of almost every week. And Lloyd says that because he buys in bulk, he gets better discounts. He also can now generate reports for Warner's business departments to show them how much storage they have available, how much they've used, and how much the additional storage will cost them.

"The cost reductions come in terms of storage management and higher availability," says Arun Tancja, an analyst at the Enterprise Storage Group Inc. in Milford, Massachusetts. "Your data's available all the time: it's not crashing. There's easier storage management, easier implementation of storage applications. Any costs you invest in SANs are oftentimes recovered in a matter of months, not years."

Questions:

- (a) What is a storage area network? Why are many companies installing SANs?
- (b) What are the reasons for the quick payback on SAN investments?
- (c) What are the challenges and alternatives to SANs as a data storage technology?
