(Following Paper ID and Roll No. to be filled in your Answer Books)	
Paper ID :129423	**Roll No.**

M.A.M.

Theory Examination (Semester-IV) 2015-16

MANAGEMENT INFORMATION SYSTEMS

Time : 3 Hours   *Max. Marks : 100*

Section-A

Q1. **This section consists of ten short answer type questions of 2 marks each, to be answered in about 30 words each.** **(2×10=20)**

(a)   What is an artificial intelligence system?

(b)   Explain EIS.

(c)   Write short notes on business reengineering.

(d)   What is virtual company?

(e)   Define Management Information System.

WWW.UPTUNOTES.COM

(f)   Define "Prototyping".

(g)   Discuss the characteristics of DSS.

(h)   Define "Malware".

(i)   What is "Identity theft"?

(j)   Define DFD.

Section-B

Q2. Attempt any five questions from the following eight questions of 10 marks each, to be answered in about 250 words.   (**10×5=50)**

(a)   Describe the phases of building an expert system. What are the limitations and advantages of expert system?

(b)   In developing a decision support system, what activities are conducted during the application research phase?

(c)   What is reengineering? Explain the role of reengineering in information technology.

1   (2)   P.T.O.

(d) Discuss the strategic advantage with management information system.

(e) What are some of the reasons organizations' choose outsourcing as a method of supporting data processing activities?

(f) Explain the basic phases of SLDC approach.

(g) Discuss the security and Ethical challenges of Information Technology.

(h) Describe the tools and capabilities of customer relationship management software for sales, marketing and customer service.

Section-C

Case Study
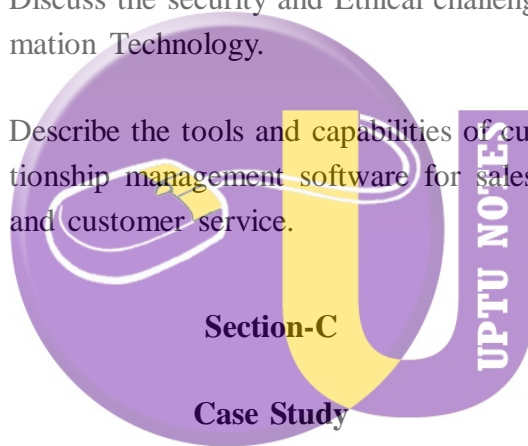
Using Expert System at American Express

In recent years, one of the best -known business applications of artificial intelligence has been Authorizer's assistant- a knowledge- based system used by American Express to help credit authorizers make better credit decisions. Expert systems- and a completely revamped credit authorization system-were a logical

choice for American Express for numerous reasons. Unlike the credit cards issued by major banks, the American Express card has no credit limit. Card holders are also expected to pay their balances in full each month.

Before implementing Authorizer's Assistant, both fraudulent use of charge cards and bad decisions in authorizing credit when merchants called for approval were costing the company hundreds of millions of dollars. Also, the system then in effect was slow and produced inconsistent results. Basically, it required human authorizers to first enter IBM's Transaction Processing Facility (TPF) and then use their own judgment to search independently through as many as dozen IMS data-bases for specific cardholder information.

In late 1984, American Express executives decided to improve the authorization system. When experts systems were chosen as the route for new systems development, the company contracted with an outside expert system developer to create a preliminary working model of the system-a prototype -to be ready in about a year. The system created by contractor is an expert system that runs on a microcomputer workstation has a communication interface. This interface allows the expert system to tap data from the IMS card-holder databases hooked to an IBM mainframe.

When merchants call in for credit approval for cardholder transaction, the expert system quickly pulls together any relevant database information, evaluates it, and makes either a decision

1 (4) P.T.O.

or a recommendation as to whether or not credit should be granted. Usually taken into account are such factors as cardholder's outstanding balance (the amount of card -holder transactions since the last statement was sent), payment history, buying habits, and the degree of risk involved. Should any warning signs appear, the system is even capable of asking merchants to obtain further information from the cardholder- such as information that would help to verify the identity of the cardholder?

About a quarter of all the transaction processed by authorizer's Assistant are straightforward enough to require no human invention. In such cases, the system essentially makes a decision and transmits it to the merchant. The others transactions are referred by the system to human authorizers. Each is accompanied by an identification of the warning signs, an explanation regarding why the transaction is being referred, a recommendation for credit authorization or denial, and encapsulation of relevant decision-making data culled from the data bases. If the human authorizer disagrees with or questions a recommendation made by the expert system, he or she can over ride it.

When humans and the expert system work together on decision, the system cuts processing time by about 20 percent. It has also slashed bad debts by 50 percent.

To develop the knowledge base, the expert system developer used a rule- based approach. In doing so, the developer's ana-

lysts interviewed American Express's five best authorizers in Fort Lauderale, Florida, and constructed a knowledge base of 520 rules. After some refinement, the base was expended to 800 rules. A credit authorization manager explains," we began with finite number of situations dealing with specific customer types or cases and from there broadened the scope".

Today, authorizer's assistant is still being used and support the activities of more than 300 human authorizers scattered around the globe. Its knowledge base is gradually being refined an improved.

In addition to credit cards, the American Express Company provides a broad range of financial service, including mutual funds and insurance. In spite of such diversification, the 1990s have brought rocky financial times for American Express and its subsidiaries. One response to the financial stress is to improve its systems - including authorizers Assistant- and to integrate the systems that support its various divisions. American Express is very interested in using information technology to further streamline its operations and enhance its competitiveness.

Answer all the three questions based on the above case.

(3x10)

Q3. How did Authorizer's Assistant improve the credit authorization process at American Express?

Q4. What good does it do to have Authorizer's assistant evaluate cardholder buying habits when making credit authorization recommendations and decisions?

Q5. Do you think Authorizers Assistant helps or hurts customer service? Explain your reasoning.