

VPM's
DR VN BRIMS, Thane
Programme: MMS (2014-16)
Second Semester Examination April 2015

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| Subject | Enterprise applications | | |
| Roll No. | | Marks | 60 Marks |
| Total No. of Questions | 7 | Duration | 3 Hours |
| Total No. of printed pages | | Date | 25/4/15 |

Note: Q1 is compulsory and solve any FOUR from the remaining SIX questions.

Q1) 20 Marks (Compulsory)

Case Study: Nexgen Pharma

About The Company

Founded in 1925 by Dr. J.W. Wigelsworth, Nexgen Pharma is truly a pioneer in the development of nutritional supplementation. Through years of research and development of new formulas and techniques for manufacturing supplements, Nexgen Pharma has grown to a multi-million dollar corporation with state-of-the-art pharmaceutical and nutritional supplement manufacturing facilities.

Headquartered in Southern California with distribution warehouses in the Central and Western United States, Nexgen Pharma is a fully licensed, federally registered pharmaceutical manufacturing company specializing in high-tech, private-label nutritional and herbal formulations, as well as other specialty and branded-name products for healthcare professionals.

As a contract manufacturer of pharmaceuticals, vitamins and other nutritional supplements, Nexgen Pharma must meet the strict standards of the Good Manufacturing Practices (GMPs) established by the U.S. Food and Drug Administration (USFDA) for prescription medicines. Additionally, the company has attained a GMP "A" rating by the National Nutritional Foods Association (NNFA), whose guidelines for dietary supplement manufacturers require an independent and exhaustive audit of operations.

Nexgen Pharma also holds a product license for the manufacture of European pharmaceutical substance, issued and inspected under authority of the UK Medicine Control Authority (MCA) on behalf of the European Union.

Challenges

Regulatory: With all of the registrations, licenses and regulatory scrutiny, Nexgen Pharma required a sound quality assurance program. To better meet these requirements, the company needed a robust business application to ensure compliance with all government agencies, regardless of product or geography.

Growth: In the fast-growing and highly competitive nutraceutical market, companies must be able to quickly adapt to volatile business demands. The company's previous software application lacked the ability to quickly scale to support Nexgen Pharmas' growing product line. Adding a specialty line of chiropractic products and many new nutritional and herbal formulations, Nexgen Pharma needed a solid system designed to support the company's recipe-and formula-based manufacturing processes.

Inventory Control: With Nexgen Pharmas' manufacturing facilities, distribution plant and corporate headquarters all located in different cities, the company also required process

visibility across the facilities. Added to this, all inventory and lot traceability had to be maintained and cross referenced from raw material supplier lot numbers to finished goods lots.

Solution

Nexgen Pharma sought a trusted partner with a keen focus on process manufacturers, like themselves. Nexgen Pharma chose Ross' ERP solution as its operational system of record. With Ross, Nexgen Pharma gained a scalable technology platform with which the company could grow and support its expanding business with critical capabilities such as lot-tracing and quality control measures

"We needed a proven solution that was cost-effective for software and implementation and encompassed all our business needs, from increased visibility across multiple locations to advanced lot-tracing capabilities in order to keep tight controls over our quality assurance," said Robert Verdugo, Information Systems Manager at Nexgen Pharma. "From its work with other contract manufacturers, Ross knew the key issues and the Ross ERP enterprise solution met all our requirements. Aside from perfectly fitting our business model, the Ross ERP Web-based Internet Application Framework has been a solid platform for our ongoing growth."

Results

Growth: The company now offers more than 100 vitamin supplements, in addition to launching a new line of specialty products. Since implementing Ross ERP, the company has achieved 60 percent revenue growth while streamlining manufacturing processes.

Inventory Control: Improved visibility throughout facilities has enabled the company to more quickly conduct mock recalls, significantly improving bi-directional lot tracing. In the event of a recall, the company can now trace product throughout its supply chain in just 20 minutes, a process that previously took as long as three days. With tighter control and overall awareness of inventory, Nexgen Pharma has decreased dead or expired stock by 80 percent and greatly minimized errors associated with expiration dates, saving the company approximately \$175,000 annually in net savings

"Ross ERP has allowed Nexgen Pharma to dramatically grow its business, becoming one of the leading manufacturers of nutritional and herbal formulations on the market today," said Verdugo. "With increased visibility enterprise-wide, we have the type of information necessary to continually improve our business practices and help us focus on development of new products and supplements."

Regulatory: With the quality control and assurance capabilities of the Ross ERP suite, Nexgen Pharma has the ability to accurately plan, execute and document manufacturing activities in accordance with all federal and international regulations. The company monitors and documents all processes and all operations in real time, providing immediate support for all reporting requirements. The company can also better plan for seasonal demand and promotions by tracking new product market penetration and customer order patterns.

"Quality control is our greatest concern," said Verdugo. "With the vast functionality and multiple types of reporting and tracking capabilities of Ross ERP, we can ensure compliance with all regulatory bodies. Our strict quality assurance program and production controls match our commitment to producing the highest-quality products using state-of-the-art facilities and equipment."

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| Q1. What is the problem faced by nextgen in the given case? | 6 |
| Q2. What are the results achieved from the solution implementation? | 6 |
| Q3. Is there any other solution which could solve the problem cost effectively? | 7 |

Attempt Any FOUR from the Remaining SIX Questions

Q2) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

- a) What are different types of ERP implementation?
- b) Explain How SCM for products is different than SCM for services?
- c) Explain the benefits of using Information technology in SCM.

Q3) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

- a) What is a data warehouse? Explain difference between a conventional database and a data warehouse?
- b) List and explain advantages of ERP.
- c) What is Business intelligence? Explain any three applications of BI with eg.

Q4) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

- a) What is Bullwhip effect in SCM? What are the reasons for Bullwhip effect?
- b) Explain ETL process in detail.
- c) Write a note on – Data Warehouse Vs Data Mart

Q5) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

- a) What are the operations done on multi dimensional data? Explain with a suitable diagram.
- b) Explain Data mining with the help of KDD process.
- c) With the help of Infosys as an example, explain implementation of knowledge management.

Q6) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

- a) What is knowledge management? Explain Role of IT in KM with suitable example.
- b) What is an enterprise portal? Explain the need for enterprise portal.
- c) What are the components of EAI system? Explain with suitable diagram.

Q7) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks

- a) Explain how cultural difference plays an important role in knowledge creation process.
- b) What are EAI benefits and EAI challenges?
- c) Write a note on content management.