PART A  ( 32 x1 = 32 marks)

Q. 1 Expand the following
   a. WIP
   b. CRP
   c. FMS
   d. TPM
   e. APC
   f. PDSA
   g. CAPP
   h. MTTR

Q. 2 Match the following
   a. AGV  a. eliminate wastage
   b. TPM  b. Flexible Routing
   c. Kantrow  c. Effectiveness, efficiency, ability to change
   d. TOPP System  d. entrepreneurial attitude for senior managers
   e. Bradley  e. skinner
   f. Focused factory  f. Hill
   g. External quality  g. Repeated Sales
   h. 5 framework for  h. AMBITE
      Manufacturing strategy
Q. 3. State True or False
   a. Innovation is application of product and process without waste
   b. WCM is a process driven approach to improve manufacturing operations
   c. Shiego Shigo has pioneered statistical Quality Control
   d. Kanban means Token
   e. SMED is systematic Manufacturing Exchange Device
   f. Today’s success depends on providing value at lowest cost and in time
   g. Reliability is in time, quality and consistent service
   h. A balanced score – card should tell the story of a company’s strategy.

Q. 4 Fill in the blanks
   a. WTO headquarters is at ________________
   b. AGV provides for ____________routing
   c. All the employees are required to contribute __________to customers
   d. Improved flexibility is one of the goals of _____________
   e. Six sigma means identifying ______ of errors
   f. Good quality does not necessarily means _______quality
   g. __________improves strategic and competitiveness of the firm
   h. __________definition of quality is fitness of use.

PART B

Answer any 3 questions. Each question carries 16 marks

Q. 5 Outline the requirements of Manufacturing Excellence?
Q. 6. What are the Characteristics of lean production?
Q. 7 What are the 14 points of Deming’s quality concept?
Q. 8. What are the guiding principles of JIT?
Q. 9 Explain the basic structures of Bar Code.
'Focus' is what makes Piramal recount the story so many times. 'If you keep your eye on your objective, success will follow'.

Ajay Piramal is chairman of Piramal enterprises, one of India’s top forty business houses, with interests largely in pharmaceuticals, textiles and retailing, but also having a presence in engineering (ferrites, auto components and tools), glass consisted of twenty – six companies (including joint ventures), with aggregate revenues of about Rs 20 bn, the fastest growing company – and the most profitable – was Nicholas Piramal. A pharmaceutical firm (earlier known as Nicholas Laboratories)

Pharmaceuticals was a relatively new business for this third generation group, founded in 1973 by Piramal’s grandfather. Until 1987, most of the group’s revenues had come from the textiles business, and Morarjee Mills was India’s oldest surviving composite textile mill. However, strikes and government policies had increased the uncertainties for the organized segment of the textile industry. And the development, of the textile industry in China had changed the competitive environment, driving prices down and reducing margins dramatically, Piramal felt it was time to diversify into a sunrise industry to safeguard the long-term survival of the group. The business had to have major long-term growth potential with effective entry barriers, be it through technology, investment, marketing, distribution or patents. This was not to imply that the group would exit its existing businesses: the group also needed to develop and implement a strategy to ensure healthy and strong long-term growth for all of them.

While mulling over this issue and poring over industry reports, Piramal was offered the opportunity to acquire Nicholas Laboratories a pharmaceutical company. In 1984, the group had acquired a small glass company, Gujarat Glass, which supplied bottles and vials to the pharmaceutical industry, but this was the sum limit of the group’s exposure to this business, while Piramal was not certain that Nicholas Laboratories met his key objective, viz, a business with a major long-term growth potential with effective entry barriers, be it through technology, investment, marketing, distribution or patents’, he was sanguine that he would be able to turn it around. After all, the group’s genesis and growth had been through the acquisition route. Over the years, it had turned around no less than four companies, Nicholas Laboratories had an impressive product portfolio, including Aspro, the popular OTC headache remedy. It owned some valuable real estate. And he could afford the price.

The success of its first foray into the pharma sector encouraged the Piramal Group to acquire a second pharma company, and then a third, and then a fourth, and so on-until share prices plummeted. Analysts became concerned that the companies were being used for profit transfers. For example, they were
worried that Nicholas Laboratories, as it was known then (where the Piramal group held 45 percent of the equity) could outsource to Piramal Helathcare, formerly Roche India (where it held a 74 per cent stake) at a favorable transfer price. In 1998, Piramal announced the merger of all the three pharmaceutical companies in the group. He also announced that all future investments by the group in the pharmaceutical sector would henceforth be routed through Nicholas Piramal. Share prices promptly soared and, with it, confident in the management,

However, the merger announcements brought to the following issues:

1. If Nicholas Piramal were to absorb every best practice, process and standard of the three companies, it could submerge under the weight of this gold plating, so what should be kept and what should go?

2. The pharma sector was doing well and the outlook was bright, Nicholas Piramal was well on this way to becoming one of India’s five biggest pharma companies, but eventually the country would run out of reasonably priced, mismanaged, poor-performing companies to buy. The merger offered an opportunity to build for the future, to move from purely acquisitive growth to organic growth. So what should be the strategy? What competencies needed to be build into Nicholas Piramal?

3. Piramal Enterprises was a professionally run group. But waiting in the wings was a new crop of young Piramals who hoped to find managerial berths in the group companies, what should be their role in Nicholas Piramals?

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