



Plot No. 2, Knowledge Park-III, Greater Noida (U.P.)–201306

POST GRADUATE DIPLOMA IN MANAGEMENT (2018-20)  
MID TERM EXAMINATIONS (TERM -II)

Subject Name: **Operations Management**  
Sub. Code: **PG14**

Time: **01.30 hrs**  
Max Marks: **20**

**Note:**

- 1. Writing anything except Roll Number on question paper will be deemed as an act of indulging in unfair means and action shall be taken as per rules.**
- 2. All questions are compulsory in Section A, B & C. Section A carries Case Study with 2 questions, 4 marks each. Section B carries 3 questions of 2 marks each and Section C carries 2 questions of 3 marks each.**

**SECTION – A**

**04+04 = 08 Marks**

Q. 1: Case Study: No Frills Hospital-“Narayana Hrudayalaya”

What if hospitals were run like a mix of Wal-Mart and a low-cost airline? The result might be something like the chain of "no-frills" Narayana Hrudayalaya hospital in southern India.

"Today healthcare has got phenomenal services to offer. Almost every disease can be cured and if you can't cure patients, you can give them meaningful life," says company founder Devi Shetty, one of the world's most famous heart surgeons. "But what percentage of the people of this planet can afford it? A hundred years after the first heart surgery, less than 10 percent of the world's population can," he shared. A lack of private insurance and a public system that has "collapsed" according to the country's rural development minister means an estimated 70 percent of healthcare spending is borne by Indians out of their own pockets. So Dr Shetty a sharp-witted cardiologist who has spotted a gap in the market. "We believe that charity is not scalable. If you give anything free of cost, it is a matter of time before you run out of money, and people are not asking for anything free," he said.

Already famous for his "heart factory" in Bangalore, which does the highest number of cardiac operations in the world, the latest Narayana Hrudayalaya ("Temple of the Heart") projects are ultra low-cost facilities. Narayana has 56 facilities, treats 2 million patients every year and conducts 300+ surgeries daily. The chain is known for clinical excellence but innovates from the get-go on both processes and materials, leveraging economies of scale. The Mysore facility represents his vision for the future of healthcare in India -- and a model likely to burnish India's reputation as a centre for low-cost innovation in the developing world. The first is a single-storey hospital in Mysore, two hours drive from Bangalore, which was built for about 400 million rupees (7.4 million dollars) in only 10 months and recently opened its doors. Dr. Shetty has been dubbed the Henry Ford of heart surgeries because his doctors go from one operating table to the next with an assembly line precision that is rare in the Indian healthcare system. Narayana keeps tight control on its purchases, driving down prices by negotiating directly with equipment manufacturers like GE and, in some cases, encouraging domestic companies to make in India inexpensive local versions of costly imported medical supplies. The group of Indian doctors believes they can cut the cost of heart surgery to an affordable and quite low price US dollar(\$) 2000 at their "no frills" low-cost hospital as compare to other private hospitals fee of US dollar(\$) 5000. By running the operating theatres from early morning to late at night, six days a week, it is inspired by low-cost airlines which keep their planes in the air as much as possible.

Set amid palm trees and with five operating theatres for cardiac, brain and kidney procedures, Shetty boasts how it was built at a fraction of the cost of equivalents in the rich world. Using pre-fabricated buildings, stripping out air-conditioning and even training visitors to help with post-operative care. Air-conditioning is restricted to operating theatres and intensive care units. Ventilation comes from large windows on the wards. About 30 heart surgeries are performed there daily, the highest in the world, at a break-even cost of 1,800 dollars. Most patients are charged more than this, but some of the poorest are treated for free.

In its architecture, Shetty rejected the generic multi-storey model, which requires costly foundations and steel reinforcements as well as lifts and complex fire safety equipment. "Essentially we realised that as you do more numbers, your results get better and your cost goes down," he said.

In its dealings with suppliers, the hospital group works like a large supermarket, buying expensive items such as heart valves in bulk. Relatives or friends visiting in-patients undergo a four-hour nursing course and are expected to change bandages and do other simple tasks.

From 12,000 beds now in 56 clinics, he aims to expand privately-run Narayana Hrudayalaya Hospitals to a group with 30,000 beds in the next five years. The Mysore facility will be followed by others in the cities of Bhubaneswar and Siliguri. Dr. Shetty said Narayana is looking at technology to further dramatically bring down healthcare costs. "Technology is the next game-changer. In the next five to ten years, a lot of healthcare will be delivered online."

### **Questions:**

Q1(a): What is the vision and operations strategy of Narayana Hrudayalaya hospitals, and how does it help them to become profitable?

Q1(b): What are different cost saving and innovative initiatives Narayana Hrudayalaya hospital has applied for affordable healthcare services? Support your answer with operations management concepts.

### **SECTION – B**

**02×03 = 06 Marks**

Q. 2: Describe mass production and continuous process in process design with suitable examples?

Q. 3: What would be impact on process design due to increase the variety of products/services?

Explain briefly with examples

Q. 4: Explain Target Costing with various steps for implementing target costing approach? Give suitable examples.

### **SECTION – C**

**03×02 = 06 Marks**

Q.5. Bajaj Auto Ltd. has successfully designed and developed the Bajaj Motorcycles like Pulsar?

Explain the critical success factors of product design and product development process which Bajaj implemented to develop the world class products.

Q. 6. Maruti's entry-level cars are the highest selling vehicles in India. The company is planning to launch the new Wagon R by January 2019 and a new version of the Maruti Alto 800 by 2020. What could be the changes for these models to avoid decline stage of the product life cycle?