

Roll No.....

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

POST GRADUATE DIPLOMA IN MANAGEMENT (2019 -21) MID TERM EXAMINATIONS (TERM - II)

Subject Name: Operations Management	Time: 01.30 hrs
Sub. Code: PG14	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 1 Case Study of 8 marks. 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:

The technology life-cycle (TLC) describes the commercial gain of a product through the expense of research and development phase, and the financial return during its "vital life". Some technologies, such as steel, paper or cement manufacturing, have a long lifespan (with minor variations in technology incorporated with time) while in other cases, such as electronic or pharmaceutical products, the lifespan may be quite short.

The TLC associated with a product or technological service is different from product life-cycle (PLC) dealt with in product life-cycle management. The latter is concerned with the life of a product in the marketplace with respect to timing of introduction, marketing measures, and business costs. The technology underlying the product (for example, that of a uniquely flavoured tea) may be quite marginal but the process of creating and managing its life as a branded product will be very different.

The technology life cycle is concerned with the time and cost of developing the technology, the timeline of recovering cost, and modes of making the technology yield a profit proportionate to the costs and risks involved. The TLC may, further, be protected during its cycle with patents and trademarks seeking to lengthen the cycle and to maximize the profit from it.

The product of the technology may be a commodity such as polyethylene plastic or a sophisticated product like the integrated circuits used in a smartphone.

The development of a competitive product or process can have a major effect on the lifespan of the technology, making it shorter. Equally, the loss of intellectual property rights through litigation or loss of its secret elements (if any) through leakages also work to reduce a technology's lifespan. Thus, it is apparent that the management of the TLC is an important aspect of technology development.



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Most new technologies follow a similar technology maturity lifecycle describing the technological maturity of a product. This is not similar to a product life cycle, but applies to an entire technology, or a generation of a technology.

Technology adoption is the most common phenomenon driving the evolution of industries along the industry lifecycle. After expanding new uses of resources they end with exhausting the efficiency of those processes, producing gains that are first easier and larger over time then exhaustingly more difficult, as the technology matures.

- i When you face a problem to manage technology life cycle? Analyze and discuss.
- ii Explain the various stages of technology life-cycle.

SECTION - B

02×03 = 06 Marks

- **Q.2:** Is there a difference between the terms "Production Management" and "Operations Management"? If so, what is it?
- **Q. 3:** Discuss sequential layout and explain how it is different from functional layout. Also explain its features and principles of grouping with respect to sequential layout.
- **Q. 4:** Compare and contrast the characteristics features of Job Order Production, Batch Order Production and Mass Order Production.

<u>SECTION - C</u> $03 \times 02 = 06$ Marks

- **Q. 5.** What do you understand by Transformation Process? Draw the transformation process model for a bank.
- **Q. 6.** What is the need for organizations to design and develop new products? Also explain the steps in new product design.