

K. J. SOMAIYA INSTITUTE OF MANAGEMENT STUDIES AND RESEARCH,

Program: PGDM / MMS- OPERATIONS – 2018-20

IV TRIM – END TERM EXAM

Subject: New Product Development & Concurrent Engineering

Maximum Marks: 50

Duration: 3 hours

Date: 14th September 2018

Note: Attempt five questions. Q No 1 & 6 are compulsory. All carry equal marks (10)

Q No. 1: As the head of a well-known automotive unit how your business innovation strategy impact the new product development? What will be your success mantra? Why?

Q No. 2: a). Discuss set based concurrent engineering as practiced by successful production units.

b) How do you compare the SBCE with Toyota's innovative ideas in SBCE. Do you feel Toyota's approach is different? Is this approach more successful?

Q No. 3: a) As the chief technology officer of your company how would handle the technology transfer for the launch of a new product?

b) What are the main issues in technology transfer? Compare the advantages and disadvantages of various types of technology transfer?

Q No. 4: Write short notes on the below; (Two marks each)

- a) Risk management in NPD
- b) Strategies during the maturity stage of PLC
- c) Design for Assembly
- d) Concept Testing (w.r.t NPD)
- e) Categories of new product

Q No. 5 a): As the responsible person for a new product development and launch, how would you handle Alpha and Beta Testing? Support your discussions with appropriate examples.

b) How is design for manufacturing going to help your production process? Support your discussion with suitable examples.

Q No. 6: Read the case below and answer the questions.

NPD case study -The video recorder wars: The winning formula

A battle took place in the mid-1970s between manufacturers of video cassettes and their associated players. Although Philips was first to market with its Video Cassette Recording system released in 1972, Sony, as with its Walkman concept, was first to really attract the market with its Betamax video format released in 1975. It quickly gained market dominance until challenged by JVC's VHS. These two formats were joined a year later by the Philips V2000; all

of these systems being incompatible with each other. The Philips machine despite having several superior features never really gained significant market share - not all of the superior features were offered on the cheaper Philips models, which also suffered from poor video quality and a lack of mechanical reliability. For all these reasons the format never gained substantial market share and was withdrawn in 1985, leaving the Sony and JVC to battle it out for video supremacy. Sony was confident that its superior performance and high market share would see it defeat the new JVC upstart, but it made the cardinal marketing blunder of not responding to the needs of its potential customers.

Although consumers were impressed with Sony's marketing and the quality of its players, they wanted something quite different. Sony initially restricted the recording time of its player to one hour; suitable for television programmes, but not for the recording of films which formed the basis of a growing video rental market. Movie and video studios turned their backs on Sony and JVC were able to offer by far the largest range of rental titles on its 'Long Play' system. In addition, consumers wanted an affordable video player. JVC had made the decisive strategic move of licensing its technology to a range of electronic manufacturers; competition between which kept the price of VHS recorders well below that of Sony's machines. Despite the perceived quality advantage of the Sony, demand was price sensitive and by 1981, the market share held by Betamax tapes had fallen to below 25%.

In 1988, Sony began to market its own VHS machines and at that point it was evident that the Betamax format was dead. In recent years, both Betamax and VHS have been replaced by DVDs. The last Sony Betamax machine was manufactured in 2002 and the last dedicated JVC VHS unit was produced in 2007.

Q a: Discuss your views about the market share and licensing arrangements. (3 Marks)

Q b: Explain the importance of research and development in the process of new product development w.r.t to the case. (2 Marks)

Q c: Analyse the relationship between the product life cycle and the marketing mix. (3 Marks)

Q d: Discuss if Sony could have maintained the competitive advantage of its Betamax format over the rival VHS system. (2 marks)