PRESIDENCY UNIVERSITY
BENGALURU

SCHOOL OF ENGINEERING
MID TERM EXAMINATION - APR 2023

Semester : Semester VI - 2020   **Date :** 18-APR-2023
Course Code : MEC4010   **Time :** 9.30AM - 11.00AM
Course Name : Sem VI - MEC4010 - Product Life Cycle Management   **Max Marks :** 60
Program : MEC   **Weightage :** 30%

Instructions:
(i) Read all questions carefully and answer accordingly.
(ii) Question paper consists of 3 parts.
(iii) Scientific and non-programmable calculator are permitted.
(iv) Do not write any information on the question paper other than Roll Number.

PART A

ANSWER ALL THE QUESTIONS   **(10 X 1 = 10M)**

1. The greatest opportunity for product life cycle cost reductions are in the
   a) conception stage.   (CO1) [Knowledge]
   b) design stage.
   c) development stage.
   d) production stage.

2. When an organisation decides to combine two or more well-known brands, it is known as?
   a) Line Extension   (CO1) [Knowledge]
   b) Brand Extension
   c) Multi-Brand
   d) Co-branding

3. In the literature of product life cycle management, the term technological risk refers to
   a) lost sales related to deferring investments.   (CO1) [Knowledge]
   b) lost sales related to making unprofitable investments.
   c) losses related to declining market share for companies that are not technological leaders.
   d) losses related to research and development costs.

4. What is the main objective of product life cycle analysis from the producer's perspective?
   a) minimize life cycle externalities.   (CO1) [Knowledge]
   b) maximize life cycle profit.
   c) minimize life cycle costs.
   d) none of the above.

5. Conceptually, whole life product costs end when
   a) the producer stops producing the product.   (CO1) [Knowledge]
   b) the producer stops providing service & parts for the product.
   c) the consumer disposes of the product.
   d) the externality costs to society & the environment end.

6. Which of the following is stage of Product Life Cycle?
   a) Introduction Stage   (CO2) [Knowledge]
   b) Growth stage
   c) Decline stage
   d) All of the above

7. Which of the following is not a characteristic of "Market Introduction Stage" in PLC?
   a) Demands has to be created   (CO2) [Knowledge]
   b) Costs are low
   c) Makes no money at this stage
   d) Slow sales volume to start

8. What is the main objective of product life cycle analysis from society's perspective?
   a) minimize life cycle externalities   (CO2) [Knowledge]
   b) maximize life cycle profit.
   c) minimize life cycle costs.
   d) Default option text

9. What is the main objective of product life cycle analysis from the customer's perspective?
   a) minimize life cycle externalities.   (CO2) [Knowledge]
   b) maximize life cycle profit.
   c) minimize life cycle costs.
   d) cost vs. benefit.

10. In product life cycle management, which costs are emphasized in design and development?
    a) product costs related to characteristics such as the number of product parts.   (CO2) [Knowledge]
    b) logistical support costs
    c) customer consumption costs.
    d) all of the above.

PART B

ANSWER ALL THE QUESTIONS   **(5 X 6 = 30M)**

11. List the components that are typically found in a feasibility study.
                                                                     (CO1) [Comprehension]

12. List the benefits of PLM corresponding to particular area.
                                                                     (CO1) [Comprehension]

13. Depict a flowchart of Evolution of Product Life Cycle Management

(CO1) [Comprehension]

14. Explain Collaborative product development.

(CO2) [Comprehension]

15. Elucidate Types of Data Reuse with a flowchart.

(CO2) [Comprehension]

PART C

ANSWER ALL THE QUESTIONS   (2 X 10 = 20M)

16. Life cycle analysis (LCA) is a method used to evaluate the environmental impact of a product through its life cycle encompassing extraction and processing of the raw materials, manufacturing, distribution, use, recycling, and final disposal. Analyse the Life Cycle Analysis of Yoghurt.

(CO1) [Application]

17. Mansoor, Shashanth & Poojari all working in PLM department are in a dilemma as to which Engineering Change Management to use in small & large scale companies. Summarise their views about the topic.

(CO2) [Application]