

Roll No



**PRESIDENCY UNIVERSITY
BENGALURU**

SET B

**SCHOOL OF ENGINEERING
END TERM EXAMINATION - JAN 2024**

Semester : Semester VII - 2020

Course Code : MEC3057

Course Name : Integrated Product Design and Development

Program : B.Tech.

Date : 0J-JAN-2024

Time : 9:30AM - 12:30 PM

Max Marks : 100

Weightage : 50%

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

5 X 2M = 10M

1. How will you classify the types of products used in product development?
(CO1) [Knowledge]
2. Sketch and label concept Development Funnel.
(CO2) [Knowledge]
3. What is a differentiation plan in platform planning? Give example.
(CO3) [Knowledge]
4. Under what basis, you will assess the quality of industrial design?
(CO4) [Knowledge]
5. Mention any four forms of prototypes that you know.
(CO5) [Knowledge]

PART B

ANSWER ALL THE QUESTIONS

5 X 10M = 50M

6. With suitable example explain the process of establishing product specifications. Also, elaborate the steps involved.
(CO1) [Comprehension]

7. Concept testing is an integrated part of product development as the product has to satisfy the customer requirement and there are certain procedure to do testing of concepts. Explain in detail about the procedure involved in testing the concepts.
(CO2) [Comprehension]
8. What is the importance of product architecture? Differentiate modular and integral architecture with suitable cases.
(CO3) [Comprehension]
9. As per your understanding explain the need of industrial design and also elaborate the two important dimensions of industrial design.
(CO4) [Comprehension]
10. How will you analyse the economic feasibility of any product development process? Explain in detail about the step/procedure involved in such economic analysis process.
(CO5) [Comprehension]

PART C

ANSWER ALL THE QUESTIONS

2 X 20M = 40M

11. Describe the product planning process with the sequence of steps involved.
(CO1) [Application]
12. Arriving at architecture of product is critical decision and complicated too. In this regard, explain various steps involved in establishing product architecture with suitable real life example.
(CO3) [Application]