



VIT

Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

SCHOOL OF MECHANICAL ENGINEERING
CONTINUOUS ASSESSMENT TEST - I
WINTER SEMESTER 2023-2024

Reg. No.

(To be filled by the student)
218ME0075

Programme Name & Branch : B.Tech [BME, BMA, BMM]
Course Code : BMEE352E
Course Name : PRODUCT DESIGN ENGINEERING - II
Faculty Name(s) : Dr. Anandavel, Dr. PA Jeeva, Dr. Y. Raja Sekhar, Dr. Mohan Varma, Dr. Seenuvasaperumal P
Class Number(s) : VL2023240504607, VL2023240504158, VL2023240504159, VL2023240504157, VL2023240504156
Slot : TAA1
Date of the Exam : 11-Feb-2024
Exam Duration : 90 minutes

Maximum Marks: 50

Q. No	Question	Marks
1.	Study the given assembly. Identify two design improvement opportunities demonstrating the application of minimum two DFM and DFA guidelines each for the given assembly. Summarize the benefits of design improvement F22  Labels in diagram: PEDAL AXLE FACE LIP SEAL SHAFT DOUBLE LIP SEAL PLAIN BUSH PEDAL BODY HEX PEDAL PIN x 14 M4 PEDAL PIN x 8 IMH PIN SPACER x 14 BEARINGS 85x81x3 x 3 M5 LOCKNUT END NUT O-RING 89x15	20
2.	Write the objective and the features of the DFX process in the product design.	10
3.	Evaluate the importance of IPR in the new product development process and classify the different forms of IPR	10
4.	Compare and contrast the scope of protection offered by patents and copyrights in the context of engineering creations.	10