Hall Ticket Number:

Code No.: 18522 B

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD

Accredited by NAAC with A++ Grade

B.E. (Mech. Engg.) VIII-Semester Main & Backlog Examinations, June-2022 Product Life Cycle Management (PE-VI)

Time: 3 hours

Max. Marks: 60

Note: Answer all questions from ${\it Part-A}$ and any ${\it FIVE}$ from ${\it Part-B}$

Part-A $(10 \times 2 = 20 \text{ Marks})$

Q. No.	Stem of the question	M	L	CO	PO
1.	List the benefits of PLM.	2	1	1	1
2.	Explain the necessity of PLM visioning?	2	1	1	2
3.	Write the reason for implementing a PDM system.	2	1	2	1
4.	What is Meta data in PDM?	2	1	2	1
5.	Explain Engineering Vaulting.	2	2	3	1
6.	What is Bos in Product life cycle Management?	2	1	3	1
7.	How to create 3DXML using CAD software?	2	1	4	1
8.	What is 3D Via composer.	2	2	4	1
9.	Write the importance of digital manufacturing?	2	1	5	1
10.	Define PLM strategy.	2	1	5	1
	Part-B $(5 \times 8 = 40 \text{ Marks})$				
11. a)	Discuss PLM model and explain categories of a product's life.	5	4	1	2
b)	Establish a linkage between CIM and PLM.	3	3	1	1
12. a)	Explain the necessity of financial justification in PDM implementation	6	3	2	3
b)	Explain the benefits of product data management.	2	2	2	1
13. a)	With an example explain bill of material and process consistency in Collaborative Product Development	6	4	3	2
b)	Brief the two primary objectives of Design for the Environment.	2	2	3	2
14. a)	Explain 5 keys to success in Knowledge & Optimization of Design Products.	6	3	4	5
b)	Write the applications of 3DXML.	2	2	4	1

Code No.: 18522 B

-					
15. a)	Explain the necessary steps to focus on waste eliminating in ramp up time.	5	4	5	2
b)	Discuss the 5-step process of PLM strategy to achieve the PLM Vision.	3	3	5	3
16. a)	Explain external drivers in PLM.	4	2	1	1
b)	Explain the reasons for PDM.	4	2	2	1
17.	Answer any <i>two</i> of the following:				
a)	Explain virtual testing and validation in Collaborative Product Development.	4	2	3	2
b)	In detail Outline the applications of 3D Via composer.	4	2	4	1
c)	Explain the Importance of PLM Strategy.	4	2	5	1

M: Marks; L: Bloom's Taxonomy Level; CO; Course Outcome; PO: Programme Outcome

i)	Blooms Taxonomy Level – 1	20%	
ii)	Blooms Taxonomy Level – 2	37.5%	
iii)	Blooms Taxonomy Level – 3 & 4	42.5%	

men 12