

**M. Tech.-IV (Mechanical CAD/CAM) (CBCS – 2015 Course) :  
SUMMER - 2019**

**SUBJECT: SELF-STUDY PAPER-II INTEGRATED PRODUCT  
DESIGN AND DEVELOPMENT**

Day: Thursday  
Date: 13/06/2019

**S-2019-3542**

Time: 11.00 AM TO 02.00 PM  
Max. Marks: 60

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**N.B:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Answer to both the sections should be written in **SAME** Answer book.
  - 4) Assume suitable data **WHEREVER** is necessary.
  - 5) Use of non-programmable **CALCULATOR** is allowed.
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**SECTION-I**

**Q.1** Explain standardization, simplification and specialization in product design. **(10)**

**OR**

**Q.1** Explain types of design and redesign for integrated product design and development. **(10)**

**Q.2** Explain product development- Technical and business concerns in detail. **(10)**

**OR**

**Q.2** Explain customer needs information and analysis of gathered information. **(10)**

**Q.3** Explain product development from concept to product function in detail. **(10)**

**OR**

**Q.3** Explain functional modeling and decomposition for integrated product design and development. **(10)**

**SECTION-II**

**Q.4** Explain product development in the context of reverse engineering. **(10)**

**OR**

**Q.4** Explain Introduction to product portfolio and Architecture. **(10)**

**Q.5** Explain design for manufacture, Assembly and environment for Integrated product design of development. **(10)**

**OR**

**Q.5** Explain DFX , product testing and product validation for Integrated product design of development. **(10)**

**Q.6** Explain product development methodology in detail. **(10)**

**OR**

**Q.6** Explain steps in IPD methodology in detail. **(10)**

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