B. TECH. (CBCS - 2014 COURSE) SEM - VIII (MECHANICAL ENGG.) : SUMMER - 2018

SUBJECT: INDUSTRIAL PRODUCT DESIGN

Day: **Tuesday** | **S-2018-4697** | Time: **02.30 PM TO 05.30 PM**

Date: **05/06/2018** | Max. Marks: 60

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.

Q.1 Explain with a block diagram how cost and quality of product can be enhanced. **(10)**

OR

Q.1 Explain product architecture with its implication and establishment with suitable example. **(10)**

Q.2 Explain with suitable examples objective tree method in designing product. Give its limitations. **(10)**

OR

Q.2 Explain with suitable example value engineering method in designing product, also give its limitations. **(10)**

Q.3 What is product specification? What is the process of establishing target specifications? **(10)**

OR

Q.3 Explain with example detail steps to prepare the list of metrics for establishing the target specifications. **(10)**

Q.4 Explain the sources from where new ideas can be generated for product design and development. **(10)**

OR

Q.4 Explain in detail different goals, which helps designer to design product. Justify with suitable example. **(10)**

Q.5 Explain ergonomical tools which are considered while designing Industrial product. State its advantages. **(10)**

OR

Q.5 Explain the ergonomically parameters/ factors which are to be considered while designing industrial product with reference to environmental control. Justify with suitable example. **(10)**

Q.6 What is design for manufacturing and assembly? Explain its procedure with suitable examples. **(10)**

OR

Q.6 Explain with suitable example how Design for Manufacturing and Assembly (DFMA) helps in optimizing development time. **(10)**

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