

M. Tech.-III (Mechanical CAD/CAM) (CBCS – 2015 Course) :
WINTER - 2018

SUBJECT: SELF- STUDY PAPER- I: PRODUCT DESIGN & PROCESS PLANNING

Day: Saturday
Date: 08/12/2018

W-2018-3266

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

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Answers to both the sections should be written in **SEPARATE** answer book.
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SECTION-I

Q.1 Define Product Design. Explain the characteristics of good product with suitable example. (10)

OR

Q.1 What is value engineering? Explain the value analysis procedure for any product with reference to appearance and color. (10)

Q.2 What is Reliability? Explain bath-tub curve with suitable example. (10)

OR

Q.2 What is patent? Explain the procedure for granting the patent with suitable example. (10)

Q.3 Explain basic product design rules for casting and forging with suitable example. (10)

OR

Q.3 State the criteria for selections of polymer, metals and ceramic with suitable example. (10)

SECTION-II

Q.4 Define Ergonomics. Explain with suitable example considerations for man-machine system. State its advantages and limitations. (10)

OR

Q.4 Define Anthropometry. Explain with suitable example role of Anthropometry in product design. State its advantages and limitations. (10)

Q.5 What is Computer Integrated Manufacturing (CIM) Explain the elements of CIM. (10)

OR

Q.5 What is production flow analysis? Explain the role of production flow analysis in increasing quality and productivity with suitable example. (10)

Q.6 Explain implementation consideration and components of manufacturing system for logical design of a process planning. (10)

OR

Q.6 Explain the role of CAM-I and AUTOPLAN in increasing productivity of profit, quality and delivery time with suitable example. (10)