

Total No. of Questions : 10]

SEAT No. :

P4935

[Total No. of Pages :2

[4959]-1039
B.E. Mechanical Engg.
Product Design and Development
(2012 Pattern)

Time : 3 Hours]

[Maximum Marks : 70

Instructions to the candidates:

- 1) *Neat diagrams must be drawn wherever necessary,*
- 2) *Figures to the right indicate marks*
- 3) *Assume suitable data, if necessary.*

Q1) Define product design. Enlist & elaborate different factors affecting product design. **[10]**

OR

Q2) Explain Technology forecasting with s-curve. **[10]**

Q3) Discuss different types customer needs in detail **[10]**

OR

Q4) What is concept selection? Explain pugti's chart with example. **[10]**

Q5) a) Explain systematic procedure of product tear down **[9]**

b) What is force flow diagram. Apply & Explain for paper punching machine. **[9]**

OR

Q6) a) Define Benchmarking. Explain stepwise procedure for Benchmarking. **[9]**

b) Explain function form diagram with suitable example. **[9]**

P.T.O.

- Q7)** a) Explain guidelines for design for manufacture. [8]
b) Discuss design for robustness in detail. [8]

OR

- Q8)** a) What is life cycle assessment? Explain any one method in detail. [8]
b) Discuss regional & Global issues of environment pollution. [8]

- Q9)** a) What is product lifecycle? Explain different phases of life cycle for Bajaj Scooter. comment on current phase of product. [8]
b) Discuss different Element of Product life cycle management in detail. [8]

OR

- Q10)** Explain the product life cycle phases & corresponding technologies applied in with suitable case study. [16]

