

Total No. of Questions : 4]

SEAT No. :

P5005

[6187]-405

[Total No. of Pages : 1

**T.E. (Mechanical Engineering) (Automobile)(Insem)
ADVANCED FORMING AND JOINING PROCESSES
(2019 Pattern) (Semester - I) (Elective - I) (Theory) (302045 A)**

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) *All questions are compulsory i.e. Solve Q.1 or Q.2, Q.3 or Q.4.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*

- Q1)** a) State the Surface defects identification methods and remedial process. [5]
b) With a schematic explain deep drawing operation. [5]
c) Explain in detail various challenges in forming process. [5]

OR

- Q2)** a) Explain why in a deep drawing % reduction at first stage is limited to maximum to 50%. [5]
b) Explain in detail, the effect of friction in forming operation. [5]
c) State and classify the bulk deformation & sheet metal working processes. [5]

- Q3)** a) Explain with sketch, working of Laser beam forming. [5]
b) With a schematic explain Stretch forming operation. [5]
c) Explain in detail HERF (Explosive Forming) techniques. [5]

OR

- Q4)** a) Explain in detail Incremental Sheet forming process with neat sketch. [5]
b) Explain with suitable diagram the Magnetic Pulse forming process. [5]
c) Explain with suitable diagram working of Electro Hydraulic Forming processes. [5]

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