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SEAT No. :

PC-436

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[6359]-557

**S.E. (Robotics & Automation) (Insem)  
MANUFACTURING TECHNOLOGY  
(2019 Pattern) (Semester - III) (211502)**

*Time : 1 Hour]*

*[Max. Marks : 30*

*Instructions to the candidates:*

- 1) *Answer Q1 or Q2 and Q3 or Q4.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Assume suitable data, if necessary.*

**Q1) a)** Describe various types of allowances considered while designing pattern. [8]

b) Describe the procedure to determine permeability of a sand with neat sketch. [7]

OR

**Q2) a)** Describe any two special casting processes (Other than sand casting process) with neat sketch. [8]

b) Describe the procedure to determine Grain Fineness Number of a sand with neat sketch. [7]

**Q3) a)** Describe and compare between Hot forging and Cold forging. [5]

b) Describe and compare between Open die forging and Closed die forming with neat sketch. [5]

c) Describe Four high rolling mill with neat sketch [5]

OR

**Q4) a)** Describe and compare between Hot forming and Cold forming. [5]

b) Describe double acting steam hammer with neat sketch. [5]

c) Describe Three high rolling mill with neat sketch. [5]

